

# Texas Water Development Board

## Application NHCRWA Transmission Line (Second Source Line)

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# Legal Authority

The legal authority under which the applicant was created and operates.: OTHER  
Legal Authority Other Desc: Enabling Legislation

AN ACT

relating to the creation, administration, powers, duties, operation, and financing of the North Harris County Regional Water Authority; granting the power of eminent domain and the authority to issue bonds; providing a civil penalty.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

ARTICLE 1. GENERAL PROVISIONS

SECTION 1.01. CREATION. (a) A regional water authority, to be known as the North Harris County Regional Water Authority, is created in Harris County, subject to a confirmation election held under Section 2.05 of this Act. The authority is a governmental agency and a body politic and corporate.

(b) The authority is created under and is essential to accomplish the purposes provided by Section 59, Article XVI, Texas Constitution.

SECTION 1.02. DEFINITIONS. In this Act:

- (1) "Authority" means the North Harris County Regional Water Authority.
- (2) "Board" means the board of directors of the authority.
- (3) "Commission" means the Texas Natural Resource Conservation Commission.
- (4) "Director" means a member of the board.
- (5) "Local government" means a municipality, county, special district, or other political subdivision of this state or a combination of two or more of those entities.
- (6) "Person" has the meaning assigned by Section 311.005, Government Code.
- (7) "Subsidence district" means the Harris-Galveston Coastal Subsidence District.
- (8) "System" means a network of pipelines, conduits, canals, pumping stations, force mains, treatment plants, and any other construction, device, or related appurtenance used to treat or transport water.

(9) "Water" includes:

- (A) groundwater, percolating or otherwise;
- (B) any surface water, natural or artificial, navigable or nonnavigable; and
- (C) industrial and municipal wastewater.

(10) "Subsidence" means the lowering in elevation of the surface of land by the withdrawal of groundwater.

(11) "Agricultural crop" means food or fiber commodities grown for resale or commercial purposes that provide food, clothing, or animal feed.

SECTION 1.03. DESCRIPTION OF BOUNDARIES. (a) Except as provided by this section, the authority includes the territory that is contained in the following area, whether the territory contains noncontiguous parcels of land or whether the territory is located within the boundaries of any other governmental entity or political subdivision of the state, but only if also contained in one or more of the house districts described by this section:

BEGINNING at the intersection of the Harris and Waller County line with the north right-of-way line of U.S. Highway 290 (current alignment);

THENCE northwest along the Harris and Waller County line to the intersection with Spring Creek;

THENCE continuing southeasterly along said Harris and Waller County line, with the meanders of Spring Creek to the intersection of the Waller and Montgomery County line;

THENCE southeasterly along the Harris and Montgomery County line continuing with the meanders of said Spring Creek; to the intersection with the City of Houston, corporate limits;

THENCE along said City of Houston corporate limits, the following: south approximately one half mile; east approximately one half mile to the City of Humble corporate limits; north along said City of Humble corporate limits approximately one half mile to aforementioned Spring Creek; east along Spring Creek to its confluence with the San Jacinto River to the intersection of U.S. Highway 59; easterly and southerly along the take line for Lake Houston to the intersection

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with the southeasterly right-of-way of the Union Pacific Railroad; southwesterly along said Union Pacific Railroad for approximately two miles; south to the north end of Duessen Parkway; southeast along the east side of Duessen Parkway and along the north side of the access road to the intersection with North Lake Houston Parkway;

THENCE departing said City of Houston corporate limits, west along the north side of said North Lake Houston Parkway to the beginning of Mount Houston Road, and continuing west on Mount Houston Road to the 6900 block to the intersection of Suburban;

THENCE south along Suburban to the City of Houston corporate limits;

THENCE along said City of Houston corporate limits, the following: west to Hirsch Road; south along the west side of Hirsch Road to Langely; west along the south side of Langley to the southbound feeder road of US Highway 59; northeast along the west side of the feeder road of US Highway 59 to Little York; west along the south side of Little York to Bentley; north along the east side of Bentley to Sagebrush; west along the north side of Sagebrush to Halls Bayou; south along Halls Bayou to Little York; west along the south side of Little York to Aldine Westfield Road; north along the east sides of Aldine Westfield Road to its intersection with the easterly extension of the City of Houston corporate limits; west to the Hardy Toll Road; north along the Hardy Toll Road approximately 0.25 miles; east approximately 0.35 mile; north approximately 0.15 mile; west approximately 0.35 mile; northwest along the Hardy Toll Road approximately 1 mile; southwesterly along an irregular path generally west to Carby; west along Carby to Airline Drive; south along Airline Drive to Canino; west along Canino to Sweetwater; north along Sweetwater to West Road; west to Interstate 45/US 75; south along Interstate 45/US 75 to south of Bluebell Road; southerly along an irregular path generally south and west to West Mount Houston Road; west along Mount Houston Road to a line east of Ella Boulevard; south along a line generally parallel to Ella Boulevard to south of West Gulf Bank; west along the south side of West Gulf Bank to Tomball Parkway; northwest along Tomball Parkway approximately 1.5 mile; west along an irregular path to North Houston-Rosslyn Road; north

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along North Houston-Rosslyn Road to Vogel Creek; west along Vogel Creek to the FWD CRIP RR; south along the FWD CRIP RR to Logview; west along Logview to Hollister; south along Hollister to White Oak Bayou; east along White Oak Bayou to Twisting Vine; south along Twisting Vine to West Little York; west along West Little York to Fairbanks North Houston; south along Fairbanks North Houston to Cole Creek; west along Cole Creek to Hempstead Road; northwest along Hempstead Road to Brittmore Road, also being the intersection with U.S. Highway 290, Northwest Freeway;

THENCE departing said City of Houston corporate limits and continuing northwest along U.S. Highway 290, Northwest Freeway, at Spencer Road;

THENCE northwest along U.S. Highway 290, Northwest Freeway (current alignment), to the intersection of the Harris and Waller County line, the POINT OF BEGINNING.

(b) The authority includes only that territory described by Subsection (a) of this section that is also in the following state representative districts as described by Article II, Chapter 2, Acts of the 72nd Legislature, 3rd Called Session, 1992 (Article II, Article 195a-11, Vernon's Texas Civil Statutes), as the districts existed on the effective date of this Act:

- (1) District 127;
- (2) District 126;
- (3) District 130;
- (4) District 135; and
- (5) District 150.

(c) Notwithstanding Subsections (a) and (b) of this section, the authority does not include any area that, on the effective date of this Act, is inside the municipal limits of the city of Houston or inside the municipal limits of the city of Humble.

(d) On a municipality's annexation of any of the authority's territory, the annexed territory is excluded from the authority's territory. The authority shall continue to provide services to the annexed territory in accordance with contracts in effect at the time of the annexation unless a

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written agreement between the board and the governing body of the municipality provides otherwise.

SECTION 1.04. EXCLUSION OF CERTAIN TERRITORY. (a) A district organized under Section 52, Article III, or Section 59, Article XVI, Texas Constitution, that is located in the portion of the territory described by Section 1.03(a) of this Act that is south of Beltway 8 or east of U.S. Highway 59 may petition for exclusion of its territory from the authority's territory.

Before the 61st day after the date the authority receives the petition, the board shall:

(1) grant the petition and order the territory excluded if the petition:

(A) includes an accurate legal description of the boundaries of the territory to be excluded; and

(B) the petition is filed with the authority before March 1, 2001; and

(2) if the board grants the petition, file for recording in the office of the county clerk of Harris County a copy of the order and a description of the authority's boundaries as they exist after the exclusion of the territory.

(b) The order excluding the territory is effective immediately after the order and description are recorded.

SECTION 1.05. APPLICABILITY OF OTHER LAW. (a) This Act prevails over any inconsistent provision of general law.

(b) This Act does not prevail over or preempt a provision of Chapter 151, Water Code, or Chapter 36, Water Code, that is being implemented by the subsidence district.

SECTION 1.06. FINDING OF BENEFIT. All the land and other property included within the boundaries of the authority will be benefited by the works and projects that are to be accomplished by the authority under powers conveyed by this Act. The authority is created to serve a public use and benefit.

## ARTICLE 2. DIRECTORS

SECTION 2.01. BOARD OF DIRECTORS. (a) The authority is governed by a board of five directors.

(b) The board shall appoint a person to fill a vacancy in the office of director until the next election for directors. If the position is not scheduled to be filled at the election, the person elected to fill the position serves only for the remainder of the unexpired term.

(c) To be eligible to serve as director, a person must be a qualified voter in the voting district from which the person is elected or appointed.

SECTION 2.02. METHOD OF ELECTION OF DIRECTORS. (a) One director shall be elected from each of five single-member voting districts by the qualified voters of the voting district.

(b) A person shall indicate on the person's application for a place on the ballot the voting district that the person seeks to represent.

(c) In the manner described by Section 49.103(d), Water Code, the board shall redraw the single-member voting districts as soon as practicable after:

- (1) each federal decennial census; and
- (2) any change in the boundaries of the authority.

(d) At the first election after each time the voting districts are redrawn:

(1) five new directors shall be elected to represent the single-member voting districts; and

(2) the directors elected shall draw lots to determine their terms so that:

- (A) two directors serve two-year terms; and
- (B) three directors serve four-year terms.

(e) Subchapter C, Chapter 146, Election Code, applies to the consideration of votes for a write-in candidate for the initial permanent director or permanent director as if the authority were a municipality.



SECTION 2.03. SERVICE OF DIRECTORS. (a) Temporary directors serve until the initial permanent directors are elected under Section 2.05 of this Act.

(b) The initial permanent directors serve until permanent directors are elected under Section 2.06 of this Act.

(c) Permanent directors serve staggered four-year terms.

(d) A director serves until the director's successor has qualified.

SECTION 2.04. TEMPORARY DIRECTORS. (a) The temporary board of directors is composed of three individuals appointed by the commission.

(b) If a temporary director fails to qualify for office, the temporary directors who have qualified shall appoint a person to fill the vacancy. If at any time there are fewer than two qualified temporary directors, or if the temporary directors cannot agree on the appointment, the commission shall appoint the necessary number of persons to fill all vacancies on the board.

(c) A temporary director is not eligible to be elected under Section 2.05 of this Act.

SECTION 2.05. CONFIRMATION AND INITIAL PERMANENT DIRECTORS ELECTION. (a) The temporary board of directors shall:

(1) establish five single-member voting districts in the manner described by Section 49.103(d), Water Code; and

(2) on the first uniform election date of the calendar year 2000 hold an election to confirm the establishment of the authority and to elect five initial permanent directors.

(b) A person who desires to be a candidate for the office of initial permanent director may file an application with the temporary board to have the candidate's name printed on the ballot.

(c) At the confirmation and initial permanent directors election, the temporary board of directors shall have placed on the ballot:

(1) the name of each candidate filing for the office of director; and

(2) blank spaces to write in the names of other persons.

(d) If the authority is created at the election, the temporary board of directors, at the time the vote is canvassed, shall:

(1) declare the qualified person who receives the most votes for each position to be elected as the initial director for that position; and

(2) include the results of the initial directors election in the authority's election report to the commission.

(e) As soon as practicable after the initial permanent directors have qualified, the directors shall draw lots to determine their terms so that:

(1) two directors serve terms that expire when permanent directors are elected at the first election held under Section 2.06 of this Act; and

(2) three directors serve terms that expire when permanent directors are elected at the second election held under Section 2.06 of this Act.

(f) Section 41.001(a), Election Code, does not apply to the confirmation and initial permanent directors election held under this section.

(g) The temporary board of directors shall draft language for the ballot proposition used for the confirmation election. The ballot proposition must clearly and completely explain:

(1) the powers and duties of the authority;

(2) whether the authority has the power of eminent domain;

(3) whether the authority has the authority to issue bonds;

(4) whether the authority has the authority to impose taxes; and

(5) whether the authority has the authority to impose fees.

(h) The ballot language must explain the nature of any fees or taxes the authority has the authority to impose.

SECTION 2.06. ELECTION DATES. On the first uniform election date of the calendar year in each subsequent even-numbered year, the appropriate number of directors shall be elected to the board.

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SECTION 2.07. COST OF ELECTION. (a) The temporary board of the authority shall fund the cost of the confirmation and initial permanent directors election if the temporary board is able to find a reasonable means of funding the election.

(b) If the temporary board is unable to fund the entire cost of the election, the temporary board of the authority and the board of directors of the subsidence district may execute an agreement by which:

(1) the subsidence district shall pay the portion of the costs that could not be funded by the district; and

(2) the authority shall repay the subsidence district for those costs within a reasonable period.

### ARTICLE 3. ADMINISTRATIVE PROVISIONS

SECTION 3.01. MEETINGS AND ACTIONS OF BOARD. The board shall meet at least four times each year and may meet at any other time the board considers appropriate.

SECTION 3.02. GENERAL MANAGER. (a) The board shall employ a general manager as the chief administrative officer of the authority. The board may delegate to the general manager full authority to manage and operate the affairs of the authority subject only to the orders of the board.

(b) The duties of the general manager include:

(1) the administration of the orders of the board;

(2) coordination with state, federal, and local agencies;

(3) the oversight of development of authority plans and programs; and

(4) other duties assigned by the board.

(c) The board shall determine the terms of office and employment and the compensation to be paid the general manager. The general manager may be discharged by majority vote of the board.

SECTION 3.03. EMPLOYEES; BONDS. (a) The general manager of the authority shall employ all persons necessary for the proper handling of the business and operations of the authority and may employ attorneys, bookkeepers, engineers, and other expert and specialized personnel the board considers necessary. The general manager shall determine compensation to be paid by the authority.

(b) The general manager may discharge employees of the authority.

(c) The general manager of the authority and each employee or contractor of the authority who is charged with the collection, custody, or payment of any money of the authority shall execute a fidelity bond in an amount determined by the board and in a form and with a surety approved by the board. The authority shall pay for the bond.

#### ARTICLE 4. POWERS AND DUTIES

SECTION 4.01. GENERAL POWERS AND DUTIES. (a) The authority has all of the rights, powers, privileges, authority, functions, and duties necessary and convenient to accomplish the purposes of this Act, including those provided by Chapter 49, Water Code.

(b) The authority may:

(1) provide for the conservation, preservation, protection, recharge, and prevention of waste of groundwater, and for the reduction of groundwater withdrawals, in a manner consistent with the purposes of Section 59, Article XVI, Texas Constitution;

(2) for the purposes of reducing groundwater withdrawals and subsidence, acquire or develop surface water and groundwater supplies from sources inside of or outside of the boundaries of the authority and may conserve, store, transport, treat, purify, distribute, sell, and deliver water to persons, corporations, municipal corporations, political subdivisions of the state, and others, inside of and outside of the boundaries of the authority;

(3) enter into contracts with persons, including political subdivisions of the state, on terms and conditions the board considers desirable, fair, and advantageous for the performance of its rights, powers, and authority under this Act;

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(4) coordinate water services provided inside of, outside of, or into the authority;  
and

(5) administer and enforce the provisions of the Act.

(c) The authority's rights, powers, privileges, authority, functions, and duties are subject to the continuing right of supervision of the state, to be exercised by and through the commission.

(d) The authority shall exercise its rights, powers, privileges, and authority in a manner that will promote regionalization of water treatment and distribution.

SECTION 4.02. AUTHORITY RULES. (a) The authority shall adopt and enforce rules reasonably required to implement this Act, including rules governing procedures before the board.

(b) The board shall compile its rules in a book and make them available for use and inspection at the authority's principal office.

SECTION 4.03. FEES AND CHARGES. (a) The authority may establish fees and charges as necessary to enable the authority to fulfill the authority's regulatory obligations provided by this Act.

(b) The authority may charge against the owner of a well located in the authority's boundaries a fee on the amount of water pumped from the well. The board shall establish the rate of a fee under this subsection only after a special meeting on the fee. The board by rule may exempt classes of wells from the fee under this subsection. The board may not apply the fee to a well:

(1) with a casing diameter of less than five inches that serves a single-family dwelling;

(2) regulated under Chapter 27, Water Code;

(3) used for irrigation of agricultural crops;

(4) that produces 10 million gallons or less annually; or

(5) used solely for electric generation.

(c) Fees the board establishes must be sufficient to:

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(1) achieve water conservation, prevent waste of water, serve as a disincentive to pumping groundwater, and accomplish the purposes of this Act, including making available alternative water supplies; and

(2) enable the authority to meet operation and maintenance expenses and pay the principal of and interest on debt issued in connection with the exercise of the authority's general powers and duties.

(d) The temporary board may set fees to pay for the initial operation of the authority and the election of the initial permanent board until the permanent board has been elected.

SECTION 4.04. CIVIL PENALTY; INJUNCTION. (a) A person who violates a rule or order of the authority is subject to a civil penalty of not less than \$50 and not more than \$5,000 for each violation or each day of a continuing violation.

(b) The authority may bring an action to recover the penalty in a district court in the county where the violation occurred. The penalty shall be paid to the authority.

(c) The authority may bring an action for injunctive relief in a district court in the county where a violation of an authority rule or order occurs or is threatened to occur. The court may grant to the authority, without bond or other undertaking, a prohibitory or mandatory injunction that the facts warrant, including a temporary restraining order, temporary injunction, or permanent injunction.

(d) The authority may bring an action for a civil penalty and injunctive relief in the same proceeding.

SECTION 4.05. WATER SUPPLY PLANS. The authority by rule shall, as needed but not less frequently than every five years, develop, prepare, revise, and adopt comprehensive water supply and drought contingency plans for various areas of the authority. The plans:

(1) must be consistent with regional planning; and

(2) must include 10-year, 20-year, and 50-year projections of water needs within the authority.

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SECTION 4.06. ACQUISITION, CONSTRUCTION, AND OPERATION OF SYSTEMS.

(a) The authority may:

- (1) acquire and provide by purchase, gift, or lease a water treatment or supply system inside of or outside of the authority's boundaries;
- (2) design, finance, or construct a water treatment or supply system and provide water services inside of or outside of the authority's boundaries;
- (3) operate, lease, or sell a water treatment or supply system the authority constructs or acquires; and
- (4) contract with any person to operate or maintain a water treatment or supply system the person owns.

(b) The authority shall give persons outside the authority's boundaries, including the city of Houston, the option to contract for available excess capacity of the authority's water treatment or supply system or, before construction of a water treatment or supply system begins, for additional capacity of the system. The authority must offer a contract that would enable the person to pay for the excess capacity or additional capacity in accordance with the person's pro rata share of the capital investment and operational and maintenance costs for providing the excess capacity or additional capacity.

SECTION 4.07. SALE OR REUSE OF WATER OR BY-PRODUCT. The authority may store, sell, or reuse:

- (1) water; or
- (2) any by-product from the authority's operations.

SECTION 4.08. EMINENT DOMAIN. The authority may exercise the power of eminent domain in the manner provided in Chapter 21, Property Code, to acquire property of any kind to further authorized purposes of the authority. The authority may not exercise the power of eminent domain outside of the boundaries of the authority.

SECTION 4.09. CONTRACTS. (a) The authority may enter into a contract with any person or legal entity regarding the performance of any purpose or function of the authority, including a contract to jointly construct, finance, own, or operate works, improvements, facilities, plants, equipment, or appliances necessary to accomplish a purpose or function of the authority. A contract may be of unlimited duration.

(b) The authority may purchase an interest in a project used for a purpose or function of the authority.

(c) The authority may contract for:

(1) the purchase or sale of water or water rights;

(2) the performance of activities within the powers of the authority to promote the continuing and orderly development of land and property in the authority through the purchase, construction, or installation of works, improvements, facilities, plants, equipment, or appliances so that, to the greatest extent possible, considering sound engineering practices and economic feasibility, all the land and property in the authority may receive services of the works, improvements, facilities, plants, equipment, or appliances of the authority; or

(3) the construction, ownership, maintenance, or operation of any works, improvements, facilities, plants, equipment, or appliances of the authority or another person or legal entity.

(d) The authority may purchase surplus property from this state, the United States, or another public entity through a negotiated contract without bids.

(e) An officer, agent, or employee of the authority who is financially interested in the contract of the type described by Subsection (d) of this section shall disclose the interest to the board before the board votes on the acceptance of the contract.

SECTION 4.10. COOPERATION WITH AND ASSISTANCE OF OTHER GOVERNMENTAL ENTITIES. (a) In implementing this Act, the board may cooperate with and request the assistance of the Texas Water Development Board, the commission, the United

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States Geological Survey, the subsidence district, other local governments, and other agencies of the United States and this state.

(b) The subsidence district may enter into an interlocal contract with the authority to carry out the authority's purposes and may carry out the governmental functions and services specified in the interlocal contract.

(c) The board shall coordinate with the city of Houston to develop an interregional plan for a system to distribute treated surface water in an economical and efficient manner.

SECTION 4.11. GIFTS AND GRANTS. The authority is authorized to accept a gift or grant from money collected by the subsidence district under Chapter 151, Water Code, to fund a water treatment or supply system. The authorization in this section is in addition to the authorization provided in Section 49.229, Water Code.

SECTION 4.12. EXPENDITURES. (a) The authority's money may be disbursed only by check, draft, order, or other instrument.

(b) Disbursements of the authority must be signed by at least two directors, except the board by resolution may allow the general manager, treasurer, bookkeeper, or other employee of the authority to sign disbursements.

(c) The board by resolution may allow disbursements to be transferred by federal reserve wire system to accounts in the name of the authority.

SECTION 4.13. TAXATION. The authority may not impose an ad valorem tax.

#### ARTICLE 5. NOTES AND BONDS

SECTION 5.01. REVENUE NOTES. (a) The board, without an election, may borrow money on negotiable notes of the authority to be paid solely from the revenue derived from any legal source, including:

- (1) tolls, charges, and fees the authority imposes;
- (2) the sale of water, water or sewer services, or any other service or product of the

authority;

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(3) grants or gifts;

(4) the ownership and operation of all or a designated part of the authority's works, improvements, facilities, plants, or equipment; and

(5) contracts between the authority and any person, including a local government.

(b) The notes may be first or subordinate lien notes at the board's discretion. An obligation may not be a charge on the property of the authority. An obligation may only be a charge on revenue pledged for the payment of the obligation.

SECTION 5.02. BONDS. (a) To carry out a power or authority conferred by this Act, the authority may issue bonds secured by all or part of the revenue derived from any source, including any source described by Section 5.01(a) of this Act.

(b) In issuing or securing a bond or note of the authority, the authority may exercise any power of an issuer under Chapter 656, Acts of the 68th Legislature, Regular Session, 1983 (Article 717q, Vernon's Texas Civil Statutes).

(c) The authority may conduct a public, private, or negotiated sale of the bonds.

(d) The authority's bonds must:

(1) be authorized by board resolution;

(2) be issued in the authority's name;

(3) be signed by the president or vice president of the board, which may be accomplished by facsimile signature;

(4) be attested by the secretary of the board, which may be accomplished by facsimile signature; and

(5) bear the authority's seal or facsimile seal.

(e) An authority bond may be secured by an indenture of trust with a corporate trustee.

(f) The authority may issue bonds in more than one series as required for carrying out the purposes of this Act. In issuing bonds secured by revenue of the authority, the authority may

reserve the right to issue additional bonds secured by the authority's revenue that are on a parity with or are senior or subordinate to the bonds issued earlier.

(g) The resolution authorizing the bonds or the trust indenture securing the bonds may specify additional provisions that constitute a contract between the authority and its bondholders.

The board may provide:

(1) for additional bond provisions; and

(2) for a corporate trustee or receiver to take possession of the authority's facilities if the authority defaults.

(h) Section 49.181, Water Code, does not apply to bonds or notes issued by the authority.

**SECTION 5.03. REFUNDING BONDS.** The provisions of this Act that apply to the authority's issuance of other bonds, their security, and the remedies of the holders apply to refunding bonds.

**SECTION 5.04. APPROVAL AND REGISTRATION OF BONDS.** After the authority authorizes bonds, the authority shall submit the bonds and the record relating to their issuance to the attorney general for approval. If the bonds are secured by a pledge of the proceeds of a contract between the authority and a municipality or other governmental agency, authority, or district, the authority shall submit to the attorney general a copy of the contract and the proceedings of the municipality or other governmental agency, authority, or district authorizing the contract. If the attorney general finds that the bonds have been authorized and each contract has been made in accordance with the constitution and laws of this state, the attorney general shall approve the bonds and contracts. On approval, the bonds shall be registered by the comptroller.

**SECTION 5.05. FUNDING BY OTHER DISTRICTS.** (a) The authority shall develop a procedure for cooperatively funding a project of the authority with money from other districts inside of the authority's boundaries if the authority project fulfills a governmental purpose of both the authority and other districts.

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(b) Not later than the 90th day before the date the authority issues bonds, other than refunding bonds, to finance a project, the authority shall provide written notice of the authority's intention to issue the bonds to each district inside of the authority's boundaries that may be benefited or affected by the project. The notice must include the value of the bonds planned to be issued, a description of the project the bonds would finance, and a schedule of the portion of the project costs financed by the bonds that may be allocated to each district benefited or affected. The schedule must be prepared by means of a formula certified by the authority's engineer.

(c) A district may enter into a contract with the authority for the district to finance a portion of the proposed project with the district's resources instead of using proceeds from bonds of the authority for that purpose. The contract must be executed before the authority issues the bonds. As provided in the contract, the authority must:

- (1) reduce the value of the bond issuance to the degree that the district provides project funding; and
- (2) credit the district for its contribution to the project financing and adjust the allocation of revenue pledged to the payment of the bonds so that the authority avoids using, to a degree commensurate with the contribution, revenue from the district to service the authority's bond debt or interest.

#### ARTICLE 6. MISCELLANEOUS PROVISIONS

SECTION 6.01. FINDINGS RELATED TO PROCEDURAL REQUIREMENTS. (a) The proper and legal notice of the intention to introduce this Act, setting out the general substance of this Act, has been published as provided by law, and the notice and a copy of this Act have been furnished to all persons, agencies, officials, or entities to which they are required to be furnished by the constitution and other laws of this state, including the governor, who has submitted the notice and the Act to the commission.

(b) The commission has filed its recommendations relating to this Act with the governor, lieutenant governor, and speaker of the house of representatives within the required time.

(c) All requirements of the constitution and laws of this state and the rules and procedures of the legislature with respect to notice, introduction, and passage of this Act are fulfilled and accomplished.

SECTION 6.02. EMERGENCY. The importance of this legislation and the crowded condition of the calendars in both houses create an emergency and an imperative public necessity that the constitutional rule requiring bills to be read on three several days in each house be suspended, and this rule is hereby suspended, and that this Act take effect and be in force from and after its passage, and it is so enacted.

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President of the Senate

Speaker of the House

I certify that H.B. No. 2965 was passed by the House on April 22, 1999, by a non-record vote; and that the House concurred in Senate amendments to H.B. No. 2965 on May 19, 1999, by the following vote: Yeas 143, Nays 0, 2 present, not voting.

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Chief Clerk of the House

I certify that H.B. No. 2965 was passed by the Senate, with amendments, on May 17, 1999, by the following vote: Yeas 30, Nays 0.

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Secretary of the Senate

APPROVED: \_\_\_\_\_

Date

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Governor

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AN ACT

relating to the North Harris County Regional Water Authority.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF  
TEXAS:

SECTION 1. Section 1.02, Chapter 1029, Acts of the 76th  
Legislature, Regular Session, 1999, is amended by adding Subdivision (12) to read as follows:

(12) "Groundwater reduction plan" means a plan adopted or implemented to supply water, reduce reliance on groundwater, regulate groundwater pumping and water usage, or require and allocate water usage among persons in order to comply with or exceed the minimum requirements imposed by the subsidence district, including any applicable groundwater reduction requirements.

SECTION 2. Section 1.03, Chapter 1029, Acts of the 76th  
Legislature, Regular Session, 1999, is amended by adding Subsection (e) to read as follows:

(e) Notwithstanding Subsections (a) and (b) of this section, the authority does not include the territory of a district organized under Section 52, Article III, or Section 59, Article XVI, Texas Constitution, located within the area described by Subsections (a) and (b) of this section only if the territory meets both of the following criteria:

(1) any portion of the territory of the district was located outside the area described by Subsections (a) and (b) of this section on the effective date of this Act; and

(2) the district does not own, lease, or receive water for nonemergency purposes from a well located within the area described by Subsections (a) and (b)

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of this section.

SECTION 3. Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Section 1.045 to read as follows:

Sec. 1.045. INCLUSION OF CERTAIN TERRITORY. (a) The board of directors of a district organized under Section 52, Article III, or Section 59, Article XVI, Texas Constitution, all or part of which is not included within the boundaries of the authority under Section 1.03 of this Act, may request by petition the inclusion of its territory in the authority's territory. The petition must:

(1) be filed with the authority; and

(2) include an accurate legal description of the boundaries of the territory to be included.

(b) If the authority has bonds, notes, or other obligations outstanding, the board shall require the petitioning district to assume its share of the outstanding bonds, notes, or other obligations.

(c) Before the 61st day after the date the authority receives the petition, the board shall hold a hearing to consider the petition. The board may grant the petition and order the territory described in the petition included in the authority's territory if:

(1) it is feasible, practicable, and to the advantage of the authority; and

(2) the authority's system and other improvements of the authority are sufficient or will be sufficient to supply the added territory without injuring the territory already included in the authority.

(d) If the board grants the petition, the board shall file for recording

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in the office of the county clerk of Harris County:

(1) a copy of the order; and

(2) a description of the authority's boundaries as they exist

after the inclusion of the territory.

(e) The order including the territory is effective immediately after the order and description are recorded.

(f) A district that petitions before January 1, 2002, for inclusion within the territory of the authority shall not be required to pay any fee to the authority for admission or reimbursement for activities the authority has undertaken since its creation in the furtherance of its duties and functions. A district that petitions for inclusion within the territory of the authority on or after January 1, 2002, shall be subject to such fees and reimbursements as are in effect at the time of such petition and are applicable to such petitioners.

SECTION 4. Section 4.01, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by amending Subsection (b) and adding Subsections (e) through (h) to read as follows:

(b) The authority may:

(1) provide for the conservation, preservation, protection, recharge, and prevention of waste of groundwater~~[-and for the reduction of groundwater withdrawals,]~~ in a manner consistent with the purposes of Section 59, Article XVI, Texas Constitution;

(2) for the purposes of reducing groundwater withdrawals and subsidence, acquire or develop surface water and groundwater supplies from sources inside of or outside of the boundaries of the authority and may conserve, store, transport, treat, purify,

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distribute, sell, and deliver water to persons, corporations, municipal corporations, political subdivisions of the state, and others, inside of and outside of the boundaries of the authority;

(3) enter into contracts with persons, including political subdivisions of the state, on terms and conditions the board considers desirable, fair, and advantageous for the performance of its rights, powers, and authority under this Act;

(4) coordinate water services provided inside of, outside of, or into the authority; ~~and~~

(5) provide for the reduction of groundwater withdrawals by the development, implementation, or enforcement of a groundwater reduction plan as provided in Subsection (e) of this section;

(6) identify sources of water other than groundwater to be provided by the authority;

(7) specify the rates, terms, and conditions under which sources of water other than groundwater will be provided by the authority, which may be changed from time to time as deemed necessary by the authority;

(8) specify the dates and extent to which each person or district within the authority's boundaries shall accept water from the authority; and

(9) administer and enforce the provisions of the Act.

(e) The authority may develop, implement, participate in, and enforce a groundwater reduction plan. A groundwater reduction plan developed, implemented, participated in, or enforced by the authority shall be binding on persons, districts, entities, and wells within the authority's boundaries.

(f) The authority may contract on such terms as are mutually

agreeable with any person or district located outside the authority to allow the person or district to be included in the authority's groundwater reduction plan. Such contracts shall have the same force and effect as if the person or district were located within the authority, except that the person or district shall not have the right to vote in elections for members of the board of the authority.

(g) The plan authorized by Subsection (e) of this section may be amended from time to time at the discretion of the authority subject to the requirements and procedures of the subsidence district applicable to the amendment of groundwater reduction plans.

(h) The groundwater reduction plan developed by the authority may exceed the minimum requirements imposed by the subsidence district, including without limitation any applicable groundwater reduction requirements.

SECTION 5. Section 4.08, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:

Sec. 4.08. EMINENT DOMAIN. (a) The authority may exercise the power of eminent domain inside the boundaries of the authority [~~in the manner provided in Chapter 21, Property Code,~~] to acquire property of any kind to further the authorized purposes of the authority[~~—The authority may not exercise the power of eminent domain outside of the boundaries of the authority~~].

(b)(1) The authority may exercise the power of eminent domain outside the boundaries of the authority to acquire any land, easements, or other property for purposes of pumping, treating, storing, and transporting water.

(2) The authority may not use the power of eminent domain

granted by Subsection (b)(1) of this section for the condemnation of land for the purpose of acquiring rights to underground water or water or water rights.

(3) The authority may not use the power of eminent domain granted by Subsection (b)(1) of this section to acquire property of any kind that is:

(A) owned by a municipality with a population of 1.6 million or more or any instrumentality of a municipality with a population of 1.6 million or more, including any local government corporation created by the municipality; or

(B) located within the corporate boundaries of a municipality with a population of 1.6 million or more for limited or general purposes as of February 1, 2001.

(4) Notwithstanding Subsection (b)(3)(B) of this section, the authority may use the power of eminent domain granted by Subsection (b)(1) of this section to acquire property:

(A) within the corporate boundaries of a municipality with a population of 1.6 million or more if:

(i) the condemnation is to be used to provide facilities between two points that are within the authority; and

(ii) the area within the municipality is bounded by a line parallel to and 150 feet north of the north side of Greens Bayou and by a line parallel to and 150 feet south of the south side of Greens Bayou;

(B) that is within the corporate boundaries of a municipality with a population of 1.6 million and annexation of the territory by the municipality was completed between January 1, 1962, and January 1, 1964; or

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(C) that is within an area of the corporate boundaries of a municipality with a population of 1.6 million or more if the municipality grants permission for such condemnation.

(c) The power of eminent domain granted by Subsections (a) and (b) of this section shall be exercised in the manner provided in Chapter 21, Property Code, except that the authority shall not be required to give bond for appeal or bond for costs in any condemnation suit, or other suit to which it is a party, and shall not be required to deposit more than the amount of any award in any suit.

(d) When exercising the power of eminent domain granted by Subsections (a) and (b) of this section, the authority may elect to condemn either the fee simple or a lesser property interest.

(e) The authority may not exercise the power of eminent domain granted by Subsections (a) and (b) of this section to acquire property of any kind in a county that:

(1) has a population of more than 245,000;

(2) borders the Gulf of Mexico; and

(3) is adjacent to a county with a population of more than 1.6 million.

SECTION 6. Section 4.12(b), Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:

(b) Disbursements of the authority must be signed by at least two directors, except, notwithstanding any other law, the board by resolution may allow the general manager, treasurer, bookkeeper, or other employee of the authority to sign disbursements.

SECTION 7. Article 4, Chapter 1029, Acts of the 76th Legislature,

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Regular Session, 1999, is amended by adding Section 4.14 to read as follows:

Sec. 4.14. INCLUDED DISTRICTS. A district inside of the authority's boundaries retains its separate identity, powers, and duties, except that the district is subject to the powers and duties of the authority, including those powers and duties of the authority necessary to develop, implement, and enforce a groundwater reduction plan.

SECTION 8. Section 1.04, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is repealed.

SECTION 9. This Act takes effect immediately if it receives a vote of two-thirds of all the members elected to each house, as provided by Section 39, Article III, Texas Constitution. If this Act does not receive the vote necessary for immediate effect, this Act takes effect September 1, 2001.

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President of the Senate

Speaker of the House

I certify that H.B. No. 1110 was passed by the House on March 21, 2001, by the following vote: Yeas 146, Nays 0, 1 present, not voting.

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Chief Clerk of the House

I certify that H.B. No. 1110 was passed by the Senate on May 17, 2001, by the following vote: Yeas 30, Nays 0, 1 present, not voting.

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Secretary of the Senate

APPROVED: \_\_\_\_\_

Date

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Governor

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**2001 77(R) S.B. No. 2  
Amendment**

\*Relevant sections highlighted in yellow\*

AN ACT

relating to the development and management of the water resources of the state, including the ratification of the creation of certain groundwater conservation districts; providing penalties.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

ARTICLE 1. TEXAS WATER ADVISORY COUNCIL

SECTION 1.01. Subtitle A, Title 2, Water Code, is amended by adding Chapter 9 to read as follows:

CHAPTER 9. TEXAS WATER ADVISORY COUNCIL

Sec. 9.001. DEFINITIONS. In this chapter:

(1) "Authority" means an entity listed in Section 9.010(b).

(2) "Board" means the governing body of an authority.

(3) "Commission" means the Texas Natural Resource

Conservation Commission.

(4) "Conjunctive use" means the combined use of groundwater and surface water sources that optimizes the beneficial characteristics of each source.

(5) "Council" means the Texas Water Advisory Council.

Sec. 9.002. CREATION AND MEMBERSHIP. (a) The council consists of 13 members as follows:

(1) the chairman, or a board member designated by the chairman, of the Texas Water Development Board;



(2) the chairman, or a commissioner designated by the chairman, of the commission;

(3) the chairman, or a commissioner designated by the chairman, of the Parks and Wildlife Commission;

(4) the commissioner of agriculture;

(5) the commissioner of the General Land Office;

(6) three members of the house of representatives appointed by the speaker of the house of representatives;

(7) two members of the senate appointed by the lieutenant governor; and

(8) three members of the general public appointed by the governor, one representing groundwater management, one representing surface water management, and one representing the environmental community.

(b) Council members may not delegate participation or council duties to staff.

Sec. 9.003. TERMS. (a) Except for the commissioner of the General Land Office and the commissioner of agriculture, council members who are officials of state agencies serve terms as determined by the chairman of each agency.

(b) Council members who are members of the general public serve staggered six-year terms with the term of one member expiring August 31 of each odd-numbered year.

(c) Council members may be reappointed to serve additional terms.

(d) A vacancy on the council shall be filled by appointment by the original appointing authority for the unexpired term.

Sec. 9.004. OFFICERS OF THE COUNCIL. (a) The governor shall appoint a council member as the chair of the council for a two-year term expiring May 31 of each even-numbered year.

(b) The council shall have a secretary of the council who serves at the pleasure of the council and is accountable only to the council.

Sec. 9.005. COUNCIL STAFF. On request by the council, the commission, the Parks and Wildlife Department, the Department of Agriculture, and the Texas Water Development Board shall provide any staff other than the secretary of the council necessary to assist the council in the performance of its duties.

Sec. 9.006. MEETINGS. (a) The council shall meet at least once in each calendar quarter. Six members constitute a quorum.

(b) The council is subject to Chapters 551 and 2001, Government Code.

Sec. 9.007. COMPENSATION OF MEMBERS. (a) Members of the council serve without compensation but may be reimbursed by legislative appropriation for actual and necessary expenses related to the performance of council duties.

(b) Reimbursement under Subsection (a) is subject to the approval of the chair.

Sec. 9.008. POWERS AND DUTIES OF COUNCIL. (a) The council shall:

(1) heighten the level of dialogue on significant water policy issues and, in an advisory role only, strive to provide focus and recommendations on state water policy initiatives, including:

(A) promoting flexibility and incentives for water desalination, brush control, regionalization, weather modification projects, and public-private partnerships relating to water projects;

(B) promoting adequate financing for surface water and groundwater projects;

(C) development of water conservation and drought management projects;

(D) implementation of approved regional and state water plans;

(E) encouraging commonality of technical data and information such as joint agency studies, freshwater inflow recommendations, surface water and groundwater availability models, and bay and estuary and instream flow recommendations developed by the Parks and Wildlife Department, the commission, and the Texas Water Development Board; and

(F) encouraging the use of supplemental environmental projects for water infrastructure needs and enhancing the aquatic environment and habitat in enforcement proceedings at a state agency or political subdivision;

(2) encourage the enhancement and coordination of state, interstate, and international efforts to improve environmental quality and living conditions along the Texas-Mexico border;

(3) coordinate a unified state position on federal and international water issues; and

(4) advise the Texas Water Development Board on developing criteria for prioritizing the funding of projects in the state water plan.

(b) The council may not:

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- (1) adopt rules;
- (2) regulate water use, water quality, or any other aspect of water resource management;
- (3) plan or construct water resource projects or have such projects planned or constructed;
- (4) grant or lend money for the construction of water resource projects;
- (5) establish water resource management standards or otherwise usurp the authority of or infringe upon the duties, responsibilities, or powers of local, regional, or state water management entities, including groundwater districts, river authorities and compacts, regional water planning groups, or member agencies of the council; or
- (6) consider or discuss a specific permit or project or recommendation for a project until the water permit has been issued by the state and all motions for rehearing have been overruled.

Sec. 9.009. REPORT. Not later than December 1 of each even-numbered year, the council shall submit a report to the governor, lieutenant governor, and speaker of the house of representatives and to the senate and house standing committees with primary responsibility over water resource management and financing. The report must include findings of the council made in the periodic reviews of authorities during the preceding two-year period and any other findings and recommendations the council considers necessary.

Sec. 9.010. ANALYSIS OF AUTHORITIES. (a) On a five-year cycle, each authority shall provide the council with the information required by Sections 9.011 and 9.012. The information shall be provided to the council in the order of groups described in Subsection (b), with the information submitted by group 1 by the council's first quarterly meeting of the five-year period and group 2 submitted by the council's third quarterly meeting of the

period. The council shall continue in numerical order to receive the information by each group at every other quarterly meeting until all 10 groups have been completed and then shall recommence the cycle.

(b) Authorities shall provide the information under Subsection (a) in the following groups:

(1) in group 1, Northeast Texas Municipal Water District;

(2) in group 2, Angelina and Neches River Authority, Lower Neches Valley Authority, Sabine River Authority, and Upper Neches River Municipal Water Authority;

(3) in group 3, Red River Authority of Texas, Sulphur River Municipal Water District, and Sulphur River Basin Authority;

(4) in group 4, San Jacinto River Authority, Gulf Coast Water Authority, and North Harris County Regional Water Authority;

(5) in group 5, North Texas Municipal Water District, Tarrant Regional Water District, Trinity River Authority of Texas, and Dallas County Utility and Reclamation District;

(6) in group 6, Brazos River Authority, West Central Texas Municipal Water District, and North Central Texas Municipal Water Authority;

(7) in group 7, Guadalupe-Blanco River Authority, Lavaca-Navidad River Authority, Lower Colorado River Authority, and Upper Guadalupe River Authority;

(8) in group 8, Nueces River Authority, San Antonio River Authority, and Bexar-Medina-Atascosa Counties Water Control and Improvement District No. 1;

(9) in group 9, Colorado River Municipal Water District, Central Colorado River Authority, and Upper Colorado River Authority; and

(10) in group 10, Canadian River Municipal Water Authority and Mackenzie Municipal Water Authority.

(c) The council may not require an authority under this section to submit the information required under Section 9.012 more than once every five years. The council may, however, request an authority that has submitted information to provide follow-up information on any specific item or issue raised during the initial council analysis.

(d) The council, on a request by an authority, may modify the schedule in order to have the flexibility in scheduling the information submittal and council analysis, if needed, to be more responsive to particular circumstances, changing conditions, or time-sensitive conflicts.

Sec. 9.011. PERFORMANCE STANDARDS. (a) Before its five-year analysis under Section 9.010, an authority shall report to the council a self-assessment of:

(1) how the authority is achieving its stated mission and goals, including an identification of any barriers to achieving the mission and goals;

(2) how the authority is providing service to its customers, including mechanisms the authority provides to encourage input from the public and its customers;

(3) how the authority is addressing issues raised by its most recent management audit, if the audit is required by commission rule to be performed, including its administrative policies; and

(4) the authority's role in the regional water planning process.

(b) The authority's report to the council under this section must include recommendations related to:

(1) any interregional issues the authority has identified as problematic and any potential solutions to those issues; and

(2) solutions to any barriers the authority determines are interfering with the successful implementation of the approved regional water plan or state water plan.

Sec. 9.012. ADMINISTRATIVE POLICIES FOR AUTHORITIES.

The commission shall expand the applicability of its rules under 30 T.A.C. Chapter 292 to include all the authorities subject to this chapter. The commission shall provide the council with copies of the most recent information provided by each authority in accordance with its administrative rules.

Sec. 9.013. GIFTS AND GRANTS. The council may accept gifts and grants from any source to carry out the purposes of this chapter. The use of gifts and grants other than legislative appropriations is subject only to limitations contained in the gift or grant.

Sec. 9.014. FUNDING. (a) The interagency water advisory account is a special account in the general revenue fund.

(b) The interagency water advisory account consists of legislative appropriations, gifts and grants received under Section 9.013, and other money required by law to be deposited in the account.

(c) Money in the interagency water advisory account may be used only as provided by this chapter.

Sec. 9.015. CONTINUING RIGHT OF SUPERVISION. Nothing in this chapter affects the continuing right of supervision over authorities by the commission as provided by Section 12.081.

Sec. 9.016. PUBLIC PARTICIPATION. The council shall encourage public input regarding the exercise of its powers and duties under Section 9.008, its

preparation of the report described in Section 9.009, and its analysis of authorities under Sections 9.010 and 9.011.

Sec. 9.017. DISSOLUTION OF COUNCIL AND ACCOUNT.

Unless extended by the 78th Texas Legislature, this chapter and the interagency water advisory account expire on September 1, 2005.

ARTICLE 2. SURFACE WATER AND GROUNDWATER  
CONJUNCTIVE MANAGEMENT; REGULATORY INCENTIVES

SECTION 2.01. Section 11.002, Water Code, is amended by adding Subdivisions (11), (12), (13), and (14) to read as follows:

(11) "River basin" means a river or coastal basin designated by the board as a river basin under Section 16.051. The term does not include waters originating in bays or arms of the Gulf of Mexico.

(12) "Agriculture" means any of the following activities:

(A) cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers;

(B) the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, by a nursery grower;

(C) raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial value;

(D) raising or keeping equine animals;

(E) wildlife management; and



(F) planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure.

(13) "Agricultural use" means any use or activity involving agriculture, including irrigation.

(14) "Nursery grower" means a person who grows more than 50 percent of the products that the person either sells or leases, regardless of the variety sold, leased, or grown. For the purpose of this definition, "grow" means the actual cultivation or propagation of the product beyond the mere holding or maintaining of the item prior to sale or lease and typically includes activities associated with the production or multiplying of stock such as the development of new plants from cuttings, grafts, plugs, or seedlings.

SECTION 2.02. Subsection (a), Section 11.023, Water Code, is amended to read as follows:

(a) State water may be appropriated, stored, or diverted for:

(1) domestic and municipal uses, including water for sustaining human life and the life of domestic animals;

(2) agricultural uses and industrial uses, meaning processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, including the development of power by means other than hydroelectric;

(3) ~~irrigation;~~

~~(4)~~ mining and recovery of minerals;

~~(4)~~ ~~(5)~~ hydroelectric power;

~~(5)~~ ~~(6)~~ navigation;

~~(6)~~ ~~(7)~~ recreation and pleasure;

~~(7)~~ ~~(8)~~ stock raising;

~~(9)~~ public parks; and

(8) ~~(10)~~ game preserves.

SECTION 2.03. Section 11.024, Water Code, is amended to read as follows:

Sec. 11.024. APPROPRIATION: PREFERENCES. In order to conserve and properly utilize state water, the public welfare requires not only recognition of beneficial uses but also a constructive public policy regarding the preferences between these uses, and it is therefore declared to be the public policy of this state that in appropriating state water preference shall be given to the following uses in the order named:

(1) domestic and municipal uses, including water for sustaining human life and the life of domestic animals, it being the public policy of the state and for the benefit of the greatest number of people that in the appropriation of water as herein defined, the appropriation of water for domestic and municipal uses shall be and remain superior to the rights of the state to appropriate the same for all other purposes;

(2) agricultural uses and industrial uses, which means ~~meaning~~ processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, including the development of power by means other than hydroelectric;

(3) ~~irrigation;~~

~~(4)~~ mining and recovery of minerals;

(4) ~~(5)~~ hydroelectric power;

(5) ~~(6)~~ navigation;

(6) ~~(7)~~ recreation and pleasure; and

(7) ~~(8)~~ other beneficial uses.

SECTION 2.04. Section 11.038, Water Code, is amended to read as follows:

Sec. 11.038. RIGHTS OF OWNERS OF LAND ADJOINING CANAL, ETC. (a) A person who owns or holds a possessory interest in land adjoining or contiguous to a canal, ditch, flume, lateral, dam, reservoir, or lake constructed and maintained under the provisions of this chapter and who has secured a right to the use of water in the canal, ditch, flume, lateral, dam, reservoir, or lake is entitled to be supplied from the canal, ditch, flume, lateral, dam, reservoir, or lake with water ~~[for irrigation of the land and]~~ for agricultural uses, mining, milling, manufacturing, development of power, and stock raising, in accordance with the terms of the person's ~~[his]~~ contract.

(b) If the person, association of persons, or corporation owning or controlling the water and the person who owns or holds a possessory interest in the adjoining land cannot agree on a price for a permanent water right or for the use of enough water for irrigation of the person's land or for agricultural uses, mining, milling, manufacturing, development of power, or stock raising, then the party owning or controlling the water, if the person ~~[he]~~ has any water not contracted to others, shall furnish the water necessary for these purposes at reasonable and nondiscriminatory prices.

SECTION 2.05. Subsection (p), Section 11.085, Water Code, is amended to read as follows:

(p) ~~[For the purposes of this section, a basin is designated as provided in accordance with Section 16.051 of this code.]~~ A river basin may not be redesignated in order to allow a transfer or diversion of water otherwise in violation of this section.

SECTION 2.06. Section 11.088, Water Code, is amended to read as follows:

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Sec. 11.088. DESTRUCTION OF WATERWORKS. No person may wilfully cut, dig, break down, destroy, or injure or open a gate, bank, embankment, or side of any ditch, canal, reservoir, flume, tunnel or feeder, pump or machinery, building, structure, or other work which is the property of another, or in which another owns an interest, or which is lawfully possessed or being used by another, and which is used for [~~irrigation,~~] milling, mining, manufacturing, the development of power, domestic purposes, agricultural uses, or stock raising, with intent to:

- (1) maliciously injure a person, association, corporation, water improvement or irrigation district;
- (2) gain advantage for himself; or
- (3) take or steal water or cause water to run out or waste out of the ditch, canal, or reservoir, feeder, or flume for his own advantage or to the injury of a person lawfully entitled to the use of the water or the use or management of the ditch, canal, tunnel, reservoir, feeder, flume, machine, structure, or other irrigation work.

SECTION 2.07. Subsection (a), Section 11.122, Water Code, is amended to read as follows:

(a) All holders of permits, certified filings, and certificates of adjudication issued under Section 11.323 of this code shall obtain from the commission authority to change the place of use, purpose of use, point of diversion, rate of diversion, acreage to be irrigated, or otherwise alter a water right. Without obtaining an amendment, the holder of a permit, certified filing, or certificate of adjudication that includes industrial or irrigation use may use or supply water for an agricultural use that was classified as industrial or irrigation before September 1, 2001.

SECTION 2.08. Subsection (b), Section 11.134, Water Code, is amended to read as follows:

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(b) The commission shall grant the application only if:

- (1) the application conforms to the requirements prescribed by this chapter and is accompanied by the prescribed fee;
- (2) unappropriated water is available in the source of supply;
- (3) the proposed appropriation:
  - (A) is intended for a beneficial use;
  - (B) does not impair existing water rights or vested riparian rights;
  - (C) is not detrimental to the public welfare;
  - (D) considers the assessments performed under Sections 11.147(d) and (e) and Sections 11.150, 11.151, and 11.152 ~~[effects of any hydrological connection between surface water and groundwater]~~; and
  - (E) addresses a water supply need in a manner that is consistent with the state water plan and the relevant ~~an~~ approved regional water plan for any area in which the proposed appropriation is located, unless the commission determines that conditions warrant waiver of this requirement; and
- (4) the applicant has provided evidence that reasonable diligence will be used to avoid waste and achieve water conservation as defined by Subdivision (8)(B), Section 11.002~~[, of this code]~~.

SECTION 2.09. Section 11.142, Water Code, is amended to read as follows:

Sec. 11.142. PERMIT EXEMPTIONS. (a) Without obtaining a permit, a person may construct on the person's ~~his~~ own property a dam or reservoir with normal storage of not more than 200 acre-feet of water for domestic and livestock purposes. A person who temporarily stores more than 200 acre-feet of water in a dam or reservoir described by this

subsection is not required to obtain a permit for the dam or reservoir if the person can demonstrate that the person has not stored in the dam or reservoir more than 200 acre-feet of water on average in any 12-month period. This exemption does not apply to a commercial operation.

(b) Without obtaining a permit, a person may construct on the person's property a dam or reservoir with normal storage of not more than 200 acre-feet of water for fish and wildlife purposes if the property on which the dam or reservoir will be constructed is qualified open-space land, as defined by Section 23.51, Tax Code. This exemption does not apply to a commercial operation.

(c) Without obtaining a permit, a person who is drilling and producing petroleum and conducting operations associated with drilling and producing petroleum may take for those purposes state water from the Gulf of Mexico and adjacent bays and arms of the Gulf of Mexico in an amount not to exceed one acre-foot during each 24-hour period.

(d) ~~(e)~~ Without obtaining a permit, a person may construct or maintain a reservoir for the sole purpose of sediment control as part of a surface coal mining operation under the Texas Surface Coal Mining and Reclamation Act (Article 5920-11, Vernon's Texas Civil Statutes).

SECTION 2.10. Section 11.146, Water Code, is amended by adding Subsection (g) to read as follows:

(g) This section does not apply to a permit for construction of a reservoir designed for the storage of more than 50,000 acre-feet of water.

SECTION 2.11. Subsection (b), Section 11.147, Water Code, is amended to read as follows:

(b) In its consideration of an application for a permit to store, take, or divert water, the commission shall assess the effects, if any, of the issuance of the permit on the bays and estuaries of Texas. For permits issued within an area that is 200 river miles of the coast, to commence from the mouth of the river thence inland, the commission shall include in the permit, to the extent practicable when considering all public interests and the studies mandated by Section 16.058 as evaluated under Section 11.1491, those conditions considered necessary to maintain beneficial inflows to any affected bay and estuary system.

SECTION 2.12. Subsection (b), Section 11.173, Water Code, is amended to read as follows:

(b) A permit, certified filing, or certificate of adjudication or a portion of a permit, certified filing, or certificate of adjudication is exempt from cancellation under Subsection (a) [~~of this section~~]:

(1) to the extent of the owner's participation in the Conservation Reserve Program authorized by the Food Security Act, Pub.L. No. 99-198, Secs. 1231-1236, 99 Stat. 1354, 1509-1514 (1985) or a similar governmental program; [~~or~~]

(2) if a significant [~~any~~] portion of the water authorized to be used pursuant to a permit, certified filing, or certificate of adjudication has been used in accordance with a specific recommendation for meeting a water need included in the regional water plan approved pursuant to Section 16.053;

(3) if the permit, certified filing, or certificate of adjudication:

(A) was obtained to meet demonstrated long-term public water supply or electric generation needs as evidenced by a water management plan developed by the holder; and

(B) is consistent with projections of future water needs contained in the state water plan; or

(4) if the permit, certified filing, or certificate of adjudication was obtained as the result of the construction of a reservoir funded, in whole or in part, by the holder of the permit, certified filing, or certificate of adjudication as part of the holder's long-term water planning [of this code].

SECTION 2.13. Subsection (b), Section 11.177, Water Code, is amended to read as follows:

(b) In determining what constitutes reasonable diligence or a justified nonuse as used in Subsection (a)(2) ~~[of this section]~~, the commission shall give consideration to:

(1) whether sufficient water is available in the source of supply to meet all or part of the appropriation during the 10-year period of nonuse;

(2) whether the nonuse is justified by the holder's participation in the federal Conservation Reserve Program or a similar governmental program as provided by Section 11.173(b)(1) ~~[of this code]~~;

(3) ~~[whether the permit, certified filing, or certificate of adjudication was obtained to meet demonstrated long term public water supply or electric generation needs as evidenced by a water management plan developed by the holder and consistent with projections of future water needs contained in the state water plan;~~

~~[(4) whether the permit, certified filing, or certificate of adjudication was obtained as the result of the construction of a reservoir funded, in whole or in part, by the holder of the permit, certified filing, or certificate of adjudication as part of the holder's long term water planning;~~



~~(5)~~ whether the existing or proposed authorized purpose and place of use are consistent with an approved regional water plan as provided by Section 16.053 ~~[of this code]~~;

(4) ~~(6)~~ whether the permit, certified filing, or certificate of adjudication has been deposited into the Texas Water Bank as provided by Sections 15.7031 and 15.704 ~~[of this code]~~ or whether it can be shown that the water right or water available under the right is currently being made available for purchase through private marketing efforts; or

(5) ~~(7)~~ whether the permit, certified filing, or certificate of adjudication has been reserved to provide for instream flows or bay and estuary inflows.

SECTION 2.14. Subdivision (2), Section 15.701, Water Code, is amended to read as follows:

(2) "Depositor" means a person who deposits or has on deposit a water right in the water bank or trust.

SECTION 2.15. Section 16.012, Water Code, is amended by adding Subsections (l) and (m) to read as follows:

(l) The executive administrator shall obtain or develop groundwater availability models for major and minor aquifers in coordination with groundwater conservation districts and regional water planning groups created under Section 16.053 that overlie the aquifers. Modeling of major aquifers shall be completed not later than October 1, 2004. On completing a groundwater availability model for an aquifer, the executive administrator shall provide the model to each groundwater conservation district and each regional water planning group created under Section 16.053 overlying that aquifer.

(m) The executive administrator may conduct surveys of entities using groundwater and surface water at intervals determined appropriate by the executive administrator to gather data to be used for long-term water supply planning. Recipients of the

survey shall complete and return the survey to the executive administrator. A person who fails to timely complete and return the survey is not eligible for funding from the board for board programs and is ineligible to obtain permits, permit amendments, or permit renewals from the commission under Chapter 11. A person who fails to complete and return the survey commits an offense that is punishable as a Class C misdemeanor. Surveys obtained by the board from nongovernmental entities are excepted from the requirements of Section 552.021, Government Code, unless otherwise directed in writing by the person completing the survey. This subsection does not apply to survey information regarding windmills used for domestic and livestock use.

SECTION 2.16. Subsections (a), (f), (g), and (h), Section 16.051, Water Code, are amended to read as follows:

(a) Not ~~[No]~~ later than January 5, 2002, and before the end of each successive five-year period after that date ~~[every five years thereafter]~~, the board shall prepare, develop, formulate, and adopt a comprehensive state water plan that incorporates the regional water plans approved under Section 16.053. The state water plan shall provide for the orderly development, management, and conservation of water resources and preparation for and response to drought conditions, in order that sufficient water will be available at a reasonable cost to ensure public health, safety, and welfare; further economic development; and protect the agricultural and natural resources of the entire state.

(f) The legislature may designate a~~[-~~  
[~~(1)~~] river or stream segment of unique ecological value.  
This designation solely means that a state agency or political subdivision of the state may not finance the actual construction of a reservoir in a specific river or stream segment designated by the legislature under this subsection.

\_\_\_\_\_ (g) The legislature may designate a~~[-~~  
[~~(2)~~] site of unique value for the construction of a reservoir.

~~[(g)]~~ A state agency or political subdivision of the state may not obtain a fee title or an easement that would[-

~~[(1) destroy the unique ecological value of a river or stream segment designated by the legislature under Subsection (f) of this section; or~~

~~[(2) significantly prevent the construction of a reservoir on a site designated by the legislature under [Subsection (f) of] this subsection [section].~~

(h) The board, the commission, or the Parks and Wildlife Department or a political subdivision affected by an action taken in violation of Subsection (f) or (g) ~~[of this section]~~ may bring a cause of action to remedy or prevent the violation. A cause of action brought under this subsection must be filed in a district court in Travis County or in the county in which the action is proposed or occurring.

SECTION 2.17. Subsections (d) and (e), Section 16.053, Water Code, are amended to read as follows:

(d) The board shall provide guidelines for the consideration of existing regional planning efforts by regional water planning groups. The board shall provide guidelines for the format in which information shall be presented in the regional water plans. The board by rule shall require a holder of a surface water permit, a certified filing, or a certificate of adjudication for surface water, a holder of a permit for the export of groundwater from a groundwater conservation district, a retail public water supplier, a wholesale water provider, an irrigation district, and any other person who is transporting groundwater or surface water 20 miles or more to report to the board information on certain water pipelines and other facilities that can be used for water conveyance. Nothing in the initial planning effort shall prevent development of a management plan or project where local or regional needs require action prior to completion of the initial regional water plan under this section.

(e) Each regional water planning group shall submit to the board a regional water plan that:

(1) is consistent with the guidance principles for the state water plan adopted by the board under Section 16.051(d);

(2) provides information based on data provided or approved by the board in a format consistent with the guidelines provided by the board under Subsection (d);

(3) identifies:

(A) each source of water supply in the regional water planning area in accordance with the guidelines provided by the board under Subsections (d) and (f);

(B) factors specific to each source of water supply to be considered in determining whether to initiate a drought response; ~~and~~

(C) actions to be taken as part of the response; and

(D) information on water pipelines and other facilities that can be used for water conveyance, including, but not limited to, currently used and abandoned oil, gas, and water pipelines, as provided by board rules and guidelines;

(4) has specific provisions for water management strategies to be used during a drought of record;

(5) includes but is not limited to consideration of the following:

(A) any existing water or drought planning efforts addressing all or a portion of the region;

(B) certified groundwater conservation district management plans and other plans submitted under Section 16.054;

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(C) all potentially feasible water management strategies, including but not limited to improved conservation, reuse, and management of existing water supplies, acquisition of available existing water supplies, and development of new water supplies;

(D) protection of existing water rights in the region;

(E) opportunities for and the benefits of developing regional water supply facilities or providing regional management of water supply facilities;

(F) appropriate provision for environmental water needs and for the effect of upstream development on the bays, estuaries, and arms of the Gulf of Mexico and the effect of plans on navigation;

(G) provisions in Section 11.085(k)(1) if interbasin transfers are contemplated;

(H) voluntary transfer of water within the region using, but not limited to, regional water banks, sales, leases, options, subordination agreements, and financing agreements; and

(I) emergency transfer of water under Section 11.139, including information on the part of each permit, certified filing, or certificate of adjudication for nonmunicipal use in the region that may be transferred without causing unreasonable damage to the property of the nonmunicipal water rights holder; ~~and~~

(6) identifies river and stream segments of unique ecological value and sites of unique value for the construction of reservoirs that the regional water planning group recommends for protection under Section 16.051;

(7) assesses the impact of the plan on unique river and stream segments identified in Subdivision (6) if the regional water planning group or the legislature determines that a site of unique ecological value exists; and

(8) describes the impact of proposed water projects on water quality.

SECTION 2.18. Subdivision (7), Subsection (h), Section 16.053, Water Code, is amended to read as follows:

(7) The board may approve a regional water plan only after it has determined that:

(A) all interregional conflicts involving that regional water planning area have been resolved;

(B) the plan includes water conservation practices and drought management measures incorporating, at a minimum, the provisions of Sections 11.1271 and 11.1272; and

(C) the plan is consistent with long-term protection of the state's water resources, agricultural resources, and natural resources as embodied in the guidance principles adopted under Section 16.051(d).

SECTION 2.19. Section 16.053, Water Code, is amended by amending Subsection (j) and adding Subsections (p) and (q) to read as follows:

(j) The board may provide financial assistance to political subdivisions under Subchapters E and F of this chapter, Subchapters C, D, E, F, ~~and~~ J, O, and P, Chapter 15, and Subchapters D, I, K, and L, Chapter 17, for water supply projects only if:

(1) the board determines that the needs to be addressed by the project will be addressed in a manner that is consistent with the state water plan; and

(2) beginning January 5, 2002, the board:

(A) has approved a regional water plan as provided by Subsection (i), and any required updates of the plan, for the region of the state that includes the area benefiting from the proposed project; and

(B) determines that the needs to be addressed by the project will be addressed in a manner that is consistent with that regional water plan.

(p) If a groundwater conservation district files a petition with the board stating that a conflict requiring resolution may exist between the district's certified groundwater conservation district management plan developed under Section 36.1071 and the approved regional water plan, the board shall facilitate coordination between the district and the involved region to resolve the conflict. If conflict remains, the board shall resolve the conflict. If the board determines that resolution of conflict requires a revision of an approved regional water plan, the board shall suspend the approval of that plan and provide information to the regional water planning group. The regional water planning group shall prepare any revisions to its plan specified by the board and shall hold, after notice, at least one public hearing at some central location within the regional water planning area. The regional water planning group shall consider all public and board comments, prepare, revise, and adopt its plan, and submit the revised plan to the board for approval and inclusion in the state water plan. If the board determines that resolution of conflict requires a revision of the district's certified groundwater conservation district management plan, the board shall suspend the certification of that plan and provide information to the district. The groundwater district shall prepare any revisions to its plan specified by the board and shall hold, after notice, at least one public hearing at some central location within the district. The groundwater district shall consider all public and board comments, prepare, revise, and adopt its plan, and submit the revised plan to the board for certification. On the request of the involved region or groundwater conservation district, the board shall include discussion of the conflict and its resolution in the state water plan that the board provides to the governor, the lieutenant governor, and the speaker of the house of representatives under Section 16.051(e).

(q) Each regional planning group shall examine the financing needed to implement the water management strategies and projects identified in the group's most recent approved regional plan and, not later than June 1, 2002, shall report to the board regarding:

(1) how local governments, regional authorities, and other political subdivisions in the region propose to pay for water infrastructure projects identified in the plan; and

(2) what role the regional planning group proposes for the state in financing projects identified in the plan, giving particular attention to proposed increases in the level of state participation in funding for regional projects to meet needs beyond the reasonable financing capability of local governments, regional authorities, and other political subdivisions involved in building water infrastructure.

SECTION 2.20. Subsections (a), (c), and (d), Section 16.054, Water Code, are amended to read as follows:

(a) Notwithstanding the provisions of this subsection, groundwater districts are the state's preferred method of managing groundwater resources. It is the policy of the state that water resource management, water conservation, and drought planning should occur on an ongoing basis. The board, commission, and Parks and Wildlife Department shall make available where appropriate technical and financial assistance for such planning. In addition, the Department of Agriculture may provide input and assistance, as appropriate, for local water [such] planning.

(c) When preparing a plan to be submitted under this section, a person shall consider the implementation of a desalination program if practicable.

(d) The regional water planning group shall consider any plan submitted under this section when preparing the regional water plan under Section 16.053 of this code. A political subdivision, including a groundwater conservation district, in the regional



water planning area may request a regional water planning group to consider specific changes to a regional water plan based on changed conditions or new information. The regional water planning group shall consider the request and shall amend its regional water plan if it determines that an amendment is warranted. If the entity requesting the change is dissatisfied with the decision of the regional planning group, the entity may request that the board review the decision and consider changing the state-approved regional plan.

(e) After January 5, 2002, when ~~[(d) When]~~ preparing individual water plans that address drought or the development, management, or conservation of water resources from the holders of existing permits, certified filings, or certificates of adjudication, the water suppliers, ~~[groundwater districts,]~~ special districts, irrigation districts, and other water users should ensure that the plan is not in conflict with the applicable approved regional water plan for their region.

SECTION 2.21. Subdivision (11), Section 35.002, Water Code, is amended to read as follows:

(11) "Management area" means an area designated and delineated by the Texas Water Development Board ~~[commission]~~ as an area suitable for management of groundwater resources.

SECTION 2.22. Section 35.004, Water Code, is amended to read as follows:

Sec. 35.004. DESIGNATION OF GROUNDWATER MANAGEMENT AREAS. (a) The Texas Water Development Board, with assistance and cooperation from the commission, shall designate groundwater management areas covering all major and minor aquifers in the state. The initial designation of groundwater management areas shall be completed not later than September 1, 2003 ~~[On its own motion from time to time, or on receiving a petition, the commission may designate groundwater management areas]~~. Each

groundwater management area shall be designated with the objective of providing the most suitable area for the management of the groundwater resources. To the extent feasible, the groundwater management area shall coincide with the boundaries of a groundwater reservoir or a subdivision of a groundwater reservoir. The Texas Water Development Board [~~commission~~] also may consider other factors, including the boundaries of political subdivisions.

(b) The commission may designate a groundwater management area after September 1, 2001, for a petition filed and accepted by the commission according to its rules in effect before September 1, 2001. The commission shall act on the designation in accordance with this section [~~On the request of any person interested in the petition, or on the request of the commission, the executive director shall prepare available evidence relating to the configuration of a groundwater management area. Before making the designation, the commission shall consider the evidence prepared by the executive director and other evidence submitted at the hearing~~].

(c) The Texas Water Development Board [~~commission~~] may alter the boundaries of designated management areas as required by future conditions and as justified by factual data. An alteration of boundaries does not invalidate the previous creation of any district.

(d) The Texas Water Development Board [~~commission~~] shall designate groundwater management areas using the procedures applicable to rulemaking under [~~the Administrative Procedure Act, Subchapter B,~~] Chapter 2001, Government Code.

SECTION 2.23. Subsections (a) and (f), Section 35.007, Water Code, are amended to read as follows:

(a) The executive director and the executive administrator shall meet periodically [~~at least once a year~~] to identify, based on information gathered by the commission and the Texas Water Development Board, those areas of the state that are experiencing or that are expected to experience, within the immediately following 25-year period, critical

groundwater problems, including shortages of surface water or groundwater, land subsidence resulting from groundwater withdrawal, and contamination of groundwater supplies. Not later than September 1, 2005, the commission, with assistance and cooperation from the Texas Water Development Board, shall complete the initial designation of priority groundwater management areas across all major and minor aquifers of the state for all areas that meet the criteria for that designation. The studies may be prioritized considering information from the regional planning process, information from the Texas Water Development Board groundwater management areas and from groundwater conservation districts, and any other information available. After the initial designation of priority groundwater management areas, the commission and the Texas Water Development Board shall annually review the need for additional designations as provided by this subsection.

(f) The report shall include:

(1) the recommended delineation of the boundaries of any proposed priority groundwater management area in the form of an order to be considered for adoption by the commission;

(2) the reasons and supporting information for or against designating the area as a priority groundwater management area;

(3) a recommendation regarding whether one or more districts [a district] should be created in the priority groundwater management area, ~~[or]~~ whether the priority groundwater management area should be added to an existing district, or whether a combination of those actions should be taken;

(4) a recommendation as to actions that should be considered to conserve natural resources;

(5) an evaluation of information or studies submitted to the executive director under Subsection (c); and

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(6) any other information that the executive director considers helpful to the commission.

SECTION 2.24. Section 35.008, Water Code, is amended to read as follows:

Sec. 35.008. PROCEDURES FOR DESIGNATION OF PRIORITY GROUNDWATER MANAGEMENT AREA; CONSIDERATION OF CREATION OF NEW DISTRICT OR ADDITION OF LAND IN PRIORITY GROUNDWATER MANAGEMENT AREA TO EXISTING DISTRICT; COMMISSION ORDER. (a) The commission shall designate priority groundwater management areas using the procedures provided by this chapter in lieu of those provided by Subchapter B, Chapter 2001, Government Code.

(b) The commission shall call an evidentiary hearing to consider:

(1) the designation of a priority groundwater management area; and

(2) whether one or more districts [~~a district~~] should be created over all or part of a priority groundwater management area, ~~or~~

~~[(3) whether]~~ all or part of the land in the priority groundwater management area should be added to an existing district, or a combination of those actions should be taken. Consideration of this issue shall include a determination of whether a district is feasible and practicable.

(c) Evidentiary hearings shall be held at a location in one of the counties in which the priority groundwater management area is located, or proposed to be located, or in the nearest convenient location if adequate facilities are not available in those counties.

(d) At the hearing, the commission shall hear testimony and receive evidence from affected persons. Affected persons shall include landowners, well owners, and

other users of groundwater in the proposed priority groundwater management area. The commission shall consider the executive director's report and supporting information and the testimony and evidence received at the hearing. If the commission considers further information necessary, the commission may request such information from any source.

(e) Any evidentiary hearing shall be concluded not later than the 75th day after the date notice of the hearing is published.

(f) At the conclusion of the hearing and the commission's considerations, the commission shall issue an order stating its findings and conclusions, including whether a priority groundwater management area should be designated in the area and recommendations regarding district creation as set forth in Subsection (g).

(g) The commission's order designating a priority groundwater management area must recommend that the area be covered by a district in any of the following ways:

(1) creation of one or more new districts;

(2) addition of the land in the priority groundwater management area to one or more existing districts; or

(3) a combination of actions under Subdivisions (1) and (2).

(h) In recommending the boundaries of a district or districts under Subsection (g), the commission shall give preference to boundaries that are coterminous with those of the priority groundwater management area, but may recommend district boundaries along existing political subdivision boundaries at the discretion of the commission to facilitate district creation and confirmation.

(i) The designation of a priority groundwater management area may not be appealed nor may it be challenged under Section 5.351 of this code or [the Administrative Procedure Act,] Section 2001.038, Government Code.

SECTION 2.25. Subsections (a) and (b), Section 35.009, Water Code, are amended to read as follows:

(a) The commission shall have notice of the hearing published in at least one newspaper with general circulation in the county or counties in which the area proposed for designation as a priority groundwater management area [~~or the area within a priority groundwater management area being considered for district creation or for addition to an existing district~~] is located. Notice must be published not later than the 30th day before the date set for the hearing [~~commission to consider the designation of the priority groundwater management area, the creation of a district in a priority groundwater management area, or the addition of land in a priority groundwater management area to an existing district~~].

(b) The notice must include:

- (1) if applicable, a statement of the general purpose and effect of designating the proposed priority groundwater management area;
- (2) if applicable, a statement of the general purpose and effect of creating a new district in the priority groundwater management area;
- (3) if applicable, a statement of the general purpose and effect of adding all or part of the land in the priority groundwater management area to an existing district;
- (4) a map generally outlining the boundaries of the area being considered for priority groundwater management area designation [~~or the priority groundwater management area being considered for district creation or for addition to an existing district,~~] or notice of the location at which a copy of the map may be examined or obtained;
- (5) a statement that the executive director's report concerning the priority groundwater management area or proposed area is available at the commission's main office in Austin, Texas, and at regional offices of the commission for regions

which include territory within the priority groundwater management area or proposed priority groundwater management area and that the report is available for inspection during regular business hours;

(6) a description or the name of the locations in the affected area at which the commission has provided copies of the executive director's report to be made available for public inspection;

(7) the name and address of each public library, each county clerk's office, and each district to which the commission has provided copies of the executive director's report; and

(8) the date, time, and place of the hearing.

SECTION 2.26. Section 35.012, Water Code, is amended to read as follows:

Sec. 35.012. CREATION OF DISTRICT IN PRIORITY

GROUNDWATER MANAGEMENT AREA [~~COMMISSIONER ORDER~~]. (a) [~~At the conclusion of its hearing and considerations, the commission shall issue an order stating its findings and conclusions.~~

~~[(b) If the commission finds that the land and other property in the priority groundwater management area would benefit from the creation of one or more districts, that there is a public need for one or more districts, and that the creation of one or more districts would further the public welfare, the commission shall issue an order stating that the creation of one or more districts is needed.~~

~~[(c)]~~ Following the issuance of a commission order under Section 35.008 designating a priority groundwater management area and recommending the creation of one or more districts, or the addition of land to an existing district [~~Subsection (b)~~], the landowners in the priority groundwater management area may:

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(1) create one or more districts under Subchapter B, Chapter 36;

(2) have the area annexed to a district that adjoins the area;

or

(3) create one or more districts through the legislative process.

(b) Within two years, but no sooner than 120 days, from the date on which the commission issues an order under Section 35.008 designating a priority groundwater management area, for those areas that are not within a district, the commission shall:

- (1) create one or more new districts under Section 36.0151;
- (2) recommend that the areas, or a portion of the areas, be added to an existing district under Section 35.013; or
- (3) take any combination of the actions under Subdivisions (1) and (2).

(c) Following the issuance of a commission order under Section 35.008 ~~[(d) The commission shall identify the areas subject to the order of the commission issued under Subsection (b) that have not been incorporated into a district and shall delineate proposed boundaries of a district to include those areas. If the commission proposes the creation of one or more districts],~~ the Texas Agricultural Extension Service shall begin an educational program within such areas with the assistance and cooperation of the Texas Water Development Board, the commission, the Department of Agriculture, other state agencies, and existing districts to inform the residents of the status of the area's water resources and management options including possible formation of a district ~~[, before beginning the procedures for creation of a district provided in Subchapter B, Chapter 36].~~ The county commissioners court of each county in the priority groundwater management area shall form a steering committee to provide



assistance to the Texas Agricultural Extension Service in accomplishing the goals of the education program within the area.

~~[(e) If the commission fails to find that the district would be a benefit to the land and other property within the priority groundwater management area, that there is a public need for the district, or that creation of the district will further the public welfare, the commission shall issue an order stating that a district should not be created within the boundaries of the priority groundwater management area.~~

~~[(f) An order of the commission issued under this section may not be appealed.]~~

SECTION 2.27. Section 35.013, Water Code, is amended to read as follows:

Sec. 35.013. ADDING PRIORITY GROUNDWATER MANAGEMENT AREA TO EXISTING DISTRICT. (a) ~~[If land in a priority groundwater management area is located adjacent to one or more existing districts, the commission, instead of issuing an order under Section 35.012, may issue an order recommending that the priority groundwater management area be added to the existing district designated by the commission. In its order, the commission must find that the land and other property in the priority groundwater management area and the land in the existing district will benefit from the addition of the area, that there is a public need to add the priority groundwater management area to the existing district, and that the addition of the land to the existing district would further the public welfare.~~

~~[(b)] If the commission in its order under Section 35.008 ~~[executive director]~~ recommends that the priority groundwater management area or a portion of the priority groundwater management area be added to an existing district ~~[or if the commission considers it possible to add the priority groundwater management area to an adjacent existing district], the~~~~

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commission shall give notice to the board of the existing district recommended in its order ~~[by the executive director or considered by the commission to possibly serve the area]~~ and to any other existing districts adjacent to the priority groundwater management area.

(b) ~~(a)~~ The commission shall submit a copy of the order to the board of the district to which it is recommending the priority groundwater management area be added. The board shall vote on the addition of the priority groundwater management area to the district and shall advise the commission of the outcome.

(c) ~~(b)~~ If the board votes to accept the addition of the priority groundwater management area to the district, the board:

(1) may request the Texas Agricultural Extension Service, the commission, and the Texas Water Development Board, with the cooperation and assistance of the Department of Agriculture and other state agencies, to administer an educational program to inform the residents of the status of the area's water resources and management options including possible annexation into a district;

(2) shall call an election within the priority groundwater management area, or portion of the priority groundwater management area, as delineated by the commission to determine if the priority groundwater management area will be added to the district; and

(3) shall designate election precincts and polling places for the elections in the order calling an election under this subsection.

(d) ~~(c)~~ The board shall give notice of the election and the proposition to be voted on. The board shall publish notice of the election at least one time in one or more newspapers with general circulation within the boundaries of the priority groundwater management area. The notice must be published before the 30th day preceding the date set for the election.

(e) [~~(f)~~] The ballots for the election shall be printed to provide for voting for or against the proposition: "The inclusion of \_\_\_\_\_ (briefly describe priority groundwater management area) in the \_\_\_\_\_ District." If the district has outstanding debts or taxes, the proposition shall include the following language: "and assumption by the described area of a proportional share of the debts or taxes of the district."

(f) [~~(g)~~] Immediately after the election, the presiding judge of each polling place shall deliver the returns of the election to the board, and the board shall canvass the returns for the election within the priority groundwater management area and declare the results. If a majority of the voters in the priority groundwater management area voting on the proposition vote in favor of the proposition, the board shall declare that the priority groundwater management area is added to the district. If a majority of the voters in the priority groundwater management area voting on the proposition vote against adding the priority groundwater management area to the district, the board shall declare that the priority groundwater management area is not added to the district. The board shall file a copy of the election results with the commission.

(g) [~~(h)~~] If the voters approve adding the priority groundwater management area to the district, the board of the district to which the priority groundwater management area is added shall provide reasonable representation on that board compatible with the district's existing scheme of representation. Not later than the 30th day after the date on which the board declares that the priority groundwater management area is added to the district, the board of the existing district shall appoint a person or persons to represent the area until the next regularly scheduled election or appointment of directors.

(h) [~~(i)~~] If the proposition is defeated, or if the board of the existing district votes not to accept the addition of the area to the district, then the commission shall, except as provided under Subsection (i), create under Section 36.0151 one or more districts

covering the priority groundwater management area not later than the first anniversary of the date on which the proposition is defeated or the board votes not to accept the area.

(i) For an area that is not feasible for the creation of one or more districts as determined in the commission's findings under Section 35.008, the commission shall include in its report under Section 35.018 recommendations for the future management of the priority groundwater management area.

(j) Another [another] election to add the priority groundwater management area to an existing district may not be called before the first anniversary of the date on which the election on the proposition was held.

SECTION 2.28. Subsection (c), Section 35.018, Water Code, is amended to read as follows:

(c) If the commission determines that a district created under Chapter 36 is not appropriate for, or capable of, the protection of the groundwater resources for a particular management area or priority groundwater management area, the commission may recommend in its report to the legislature the creation of a special district or amendment of an existing district. [(1) If voters fail to create a groundwater district in a priority groundwater management area or if voters fail to add the priority groundwater management area to an existing groundwater district, the report shall include recommendations for the future management of the priority groundwater management area. The recommendations may include but are not limited to the following:

[(A) creation of a groundwater district by the legislature;

[(B) annexation of a priority groundwater management area into an existing district by the legislature; or

~~[(C) management of the priority groundwater management area by the nearest regional office of the commission. The commission may be authorized to:~~

~~[(i) adopt spacing and annual per acre pumping restrictions;~~

~~[(ii) issue well permits in accordance with Sections 36.113 and 36.1131;~~

~~[(iii) prevent waste and protect the quality of groundwater in accordance with Sections 36.001(8)(A)-(G);~~

~~[(iv) levy administrative penalties for violations; and~~

~~[(v) collect fees in accordance with Sections 36.206(a) and (b).]~~

~~[(2) If the commission is required by the legislature to manage the priority groundwater management area, a new election may not be called for three years from the date of the last election.]~~

SECTION 2.29. Section 36.001, Water Code, is amended by amending Subdivision (13) and adding Subdivisions (18) through (22) to read as follows:

(13) "Management area" means an area designated and delineated by the Texas Water Development Board ~~[commission]~~ under Chapter 35 as an area suitable for management of groundwater resources.

(18) "River basin" means a river or coastal basin designated as a river basin by the board under Section 16.051. The term does not include waters of the bays or arms originating in the Gulf of Mexico.

(19) "Agriculture" means any of the following activities:

(A) cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers;

(B) the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, by a nursery grower;

(C) raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial value;

(D) planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure;

(E) wildlife management; and

(F) raising or keeping equine animals.

(20) "Agricultural use" means any use or activity involving agriculture, including irrigation.

(21) "Conjunctive use" means the combined use of groundwater and surface water sources that optimizes the beneficial characteristics of each source.

(22) "Nursery grower" means a person who grows more than 50 percent of the products that the person either sells or leases, regardless of the variety sold, leased, or grown. For the purpose of this definition, "grow" means the actual cultivation or propagation of the product beyond the mere holding or maintaining of the item prior to sale or lease and typically includes activities associated with the production or multiplying of stock such as the development of new plants from cuttings, grafts, plugs, or seedlings.

SECTION 2.30. Section 36.0015, Water Code, is amended to read as follows:

Sec. 36.0015. PURPOSE. In order to provide for the conservation, preservation, protection, recharging, and prevention of waste of groundwater, and of groundwater reservoirs or their subdivisions, and to control subsidence caused by withdrawal of water from those groundwater reservoirs or their subdivisions, consistent with the objectives of Section 59, Article XVI, Texas Constitution, groundwater conservation districts may be created as provided by this chapter. Groundwater conservation districts created as provided by this chapter are the state's preferred method of groundwater management through rules developed, adopted, and promulgated by a district in accordance with the provisions of this chapter.

SECTION 2.31. Section 36.002, Water Code, is amended to read as follows:

Sec. 36.002. OWNERSHIP OF GROUNDWATER. The ownership and rights of the owners of the land and their lessees and assigns in groundwater are hereby recognized, and nothing in this code shall be construed as depriving or divesting the owners or their lessees and assigns of the ownership or rights, except as those rights may be limited or altered by [subject to] rules promulgated by a district.

SECTION 2.32. Subsection (b), Section 36.011, Water Code, is amended to read as follows:

(b) The commission has exclusive jurisdiction over the [~~delineation of management areas and the~~] creation of districts.

SECTION 2.33. Section 36.012, Water Code, is amended by adding Subsection (f) to read as follows:

(f) This section does not apply to districts created under Section 36.0151.

SECTION 2.34. Section 36.013, Water Code, is amended to read as follows:

Sec. 36.013. PETITION TO CREATE DISTRICT. (a) A petition requesting creation of a district must be filed with the commission [~~executive director~~] for review and certification under Section 36.015 [~~submission to the commission~~].

(b) The petition filed pursuant to this section must be signed by:

(1) a majority of the landowners within the proposed district, as indicated by the county tax rolls; or

(2) if there are more than 50 landowners in the proposed district, at least 50 of those landowners.

(c) The petition must include:

(1) the name of the proposed district;

(2) the area and boundaries of the proposed district, including a map generally outlining the boundaries of the proposed district;

(3) the purpose or purposes of the district;

(4) a statement of the general nature of any projects proposed to be undertaken by the district, the necessity and feasibility of the work, and the estimated costs of those projects according to the persons filing the projects if the projects are to be funded by the sale of bonds or notes; [~~and~~]

(5) the names of at least five individuals qualified to serve as temporary directors; and

(6) financial information, including the projected maintenance tax or production fee rate and a proposed budget of revenues and expenses for the district [~~any additional terms or conditions that restrict the powers of the district from those provided in this chapter~~].



~~[(d) If a part of the proposed district is not included within either a management area or a priority groundwater management area, the petition to create a district may also contain a request to create a management area. A request to create a management area must comply with the requirements for a petition in Section 35.005, and may be acted on by the commission separately from the petition to create the district.]~~

SECTION 2.35. Section 36.014, Water Code, is amended to read as follows:

Sec. 36.014. NOTICE AND PUBLIC MEETING ~~[HEARING]~~ ON DISTRICT CREATION. (a) If a petition is filed under Section 36.013, the commission shall give notice of the [an] application [as required by Section 49.011(a)] and shall [may] conduct a public meeting in a central location within the area of the proposed district [hearing] on the application not later than the 60th day after the date the commission issues notice [if the commission determines that a hearing is necessary under Section 49.011]. The notice must contain the date, time, and location of the public meeting and must be published in one or more newspapers of general circulation in the area of the proposed district.

(b) If the petition contains a request to create a management area in all or part of the proposed district, the notice must also be given in accordance with the requirements in Section 35.006 for the designation of management areas.

SECTION 2.36. Section 36.015, Water Code, is amended to read as follows:

Sec. 36.015. COMMISSION CERTIFICATION AND ORDER.  
(a) Not later than the 90th day after the date the commission holds a public meeting on a petition under Section 36.014, the commission shall certify the petition if the petition is administratively complete. A petition is administratively complete if it complies with the requirements of Sections 36.013(b) and (c).

(b) The commission may not certify a petition if the commission finds that the proposed district cannot be adequately funded to carry out its purposes based on the financial information provided in the petition under Section 36.013(c)(6) or that the boundaries of the proposed district do not provide for the effective management of the groundwater resources. The commission shall give preference to boundary lines that are coterminous with those of a groundwater management area but may also consider boundaries along existing political subdivision boundaries if such boundaries would facilitate district creation and confirmation.

(c) If a petition proposes the creation of a district in an area, in whole or in part, that has not been designated as a management area, the commission shall provide notice to the Texas Water Development Board. On the receipt of notice from the commission, the Texas Water Development Board shall initiate the process of designating a management area for the area of the proposed district not included in a management area. The commission may not certify the petition until the Texas Water Development Board has adopted a rule whereby the boundaries of the proposed district are coterminous with or inside the boundaries of a management area.

(d) If the commission does not certify the petition, the commission shall provide to the petitioners, in writing, the reasons for not certifying the petition. The petitioners may resubmit the petition, without paying an additional fee, if the petition is resubmitted within 90 days after the date the commission sends the notice required by this subsection.

(e) If the commission certifies the petition as administratively complete, the commission shall issue an order, notify the petitioners, and appoint temporary directors as provided by Section 36.016.

(f) Refusal by the commission to certify a petition to create a district  
does not invalidate or affect the designation of any management area. ~~[FINDINGS. (a) If the~~  
~~commission finds that a district is feasible and practicable, that it would be a benefit to the land~~  
~~in the district, and that it would be a public benefit or utility, the commission shall issue an order~~  
~~containing these findings granting the petition.~~

~~[(b) If the commission finds that a district is not feasible and~~  
~~practicable, that it would not be a benefit to the land in the district, that it would not be a public~~  
~~benefit or utility, or that it is not needed, the commission by order shall deny the petition.~~

~~[(c) The commission may adjust the boundaries of the proposed~~  
~~district to exclude any land that would not be benefited by inclusion in the district and is not~~  
~~necessary to the district for proper regulation of the groundwater reservoir.~~

~~[(d) If the commission grants the petition to create the district, it shall~~  
~~direct in its order creating the district that an election be called by the temporary directors to~~  
~~confirm the creation of the district and to elect permanent directors.~~

~~[(e) The refusal to grant a petition to create a district does not~~  
~~invalidate or affect the designation of any management area requested in the same petition.~~

~~[(f) The commission shall act on the petition within a reasonable~~  
~~amount of time.]~~

SECTION 2.37. Subsection (a), Section 36.0151, Water Code, is  
amended to read as follows:

(a) If the commission is required to create ~~[proposes that]~~ a district  
~~[be created]~~ under Section 35.012(b) ~~[35.012(d)]~~, it shall, without an evidentiary hearing, issue  
an order creating the district and shall provide in its order ~~[creating the district provide]~~ that  
temporary directors be appointed under Section 36.016 and that an election be called by the

temporary directors to authorize the district to assess taxes [~~confirm the creation of the district~~] and to elect permanent directors.

SECTION 2.38. Subsection (a), Section 36.016, Water Code, is amended to read as follows:

(a) If the commission certifies [~~grants~~] a petition to create a district under Section 36.015, the commission shall appoint the temporary directors named in the petition. If [~~or after~~] the commission dissolves a district's board under Section 36.303, it shall appoint five temporary directors.

SECTION 2.39. Section 36.017, Water Code, is amended by amending the section heading and Subsections (a), (d), and (g) and adding Subsection (i) to read as follows:

Sec. 36.017. CONFIRMATION AND DIRECTORS' ELECTION FOR DISTRICT IN A MANAGEMENT AREA. (a) For a district created under Section 36.015, not [~~Not~~] later than the 120th [~~60th~~] day after the date all temporary directors have been appointed and have qualified, the temporary directors shall meet and order an election to be held within the boundaries of the proposed district to approve the creation of the district and to elect permanent directors.

(d) The ballot for the election must be printed to provide for voting for or against the proposition: "The creation of the \_\_\_\_\_ Groundwater Conservation District." If the district levies a maintenance tax for payment of its expenses, then an additional [~~the~~] proposition shall be included with [~~include~~] the following language: "The [~~and the~~] levy of a maintenance tax at a rate not to exceed \_\_\_\_\_ cents for each \$100 of assessed valuation." The same ballot or another ballot must provide for the election of permanent directors, in accordance with Section 36.059.

(g) If a majority of the votes cast at the election are against the creation of the district, the temporary board shall declare the district defeated and shall enter the result in its minutes. The temporary board shall continue operations in accordance with Subsection (h).

(i) If a majority of the votes cast at the election are against the levy of a maintenance tax, the district shall set production fees to pay for the district's regulation of groundwater in the district, including fees based on the amount of water to be withdrawn from a well.

SECTION 2.40. Subchapter B, Chapter 36, Water Code, is amended by adding Section 36.0171 to read as follows:

Sec. 36.0171. TAX AUTHORITY AND DIRECTORS' ELECTION FOR DISTRICT IN A PRIORITY GROUNDWATER MANAGEMENT AREA. (a) For a district created under Section 36.0151, not later than the 120th day after the date all temporary directors have been appointed and have qualified, the temporary directors shall meet and order an election to be held within the boundaries of the proposed district to authorize the district to assess taxes and to elect permanent directors.

(b) In the order calling the election, the temporary directors shall designate election precincts and polling places for the election. In designating the polling places, the temporary directors shall consider the needs of all voters for conveniently located polling places.

(c) The temporary directors shall publish notice of the election at least once in at least one newspaper with general circulation within the boundaries of the proposed district. The notice must be published before the 30th day preceding the date of the election.

(d) The ballot for the election must be printed to provide for voting for or against the proposition: "The levy of a maintenance tax by the \_\_\_\_\_ Groundwater Conservation District at a rate not to exceed \_\_\_\_\_ cents for each \$100 of assessed valuation." The same ballot or another ballot must provide for the election of permanent directors, in accordance with Section 36.059.

(e) Immediately after the election, the presiding judge of each polling place shall deliver the returns of the election to the temporary board, and the board shall canvass the returns, declare the result, and turn over the operations of the district to the elected permanent directors. The board shall file a copy of the election result with the commission.

(f) If a majority of the votes cast at the election favor the levy of a maintenance tax, the temporary board shall declare the levy approved and shall enter the result in its minutes.

(g) If a majority of the votes cast at the election are against the levy of a maintenance tax, the temporary board shall declare the levy defeated and shall enter the result in its minutes.

(h) If the majority of the votes cast at the election are against the levy of a maintenance tax, the district shall set permit fees to pay for the district's regulation of groundwater in the district, including fees based on the amount of water to be withdrawn from a well.

SECTION 2.41. Section 36.019, Water Code, is amended to read as follows:

Sec. 36.019. CONFIRMATION ELECTION IN DISTRICT INCLUDING LAND IN MORE THAN ONE COUNTY. (a) A district, the major portion of which is located in one county, may not be organized to include land in another county unless the

election held in the other county to confirm and ratify the creation of the district is approved by a majority of the voters of the other county voting in an election called for that purpose.

(b) This section does not apply to districts created under Section 36.0151.

SECTION 2.42. Subsection (a), Section 36.060, Water Code, is amended to read as follows:

(a) A director is entitled to receive fees of office of not more than \$150 [~~\$100~~] a day for each day the director actually spends performing the duties of a director. The fees of office may not exceed \$9,000 [~~\$6,000~~] a year.

SECTION 2.43. Subsection (g), Section 36.066, Water Code, is amended to read as follows:

(g) If the district prevails in any suit other than a suit in which it voluntarily intervenes, the district may seek and the court shall grant [it may], in the same action, recovery [~~recover reasonable fees~~] for attorney's fees [~~attorneys~~], costs for expert witnesses, and other costs incurred by the district before the court. The amount of the attorney's fees shall be fixed by the court.

SECTION 2.44. Subsection (a), Section 36.101, Water Code, is amended to read as follows:

(a) A district may make and enforce rules, including rules limiting groundwater production based on tract size or the spacing of wells, to provide for conserving, preserving, protecting, and recharging of the groundwater or of a groundwater reservoir or its subdivisions in order to control subsidence, prevent degradation of water quality, or prevent waste of groundwater and to carry out the powers and duties provided by this chapter. During the rulemaking process the board shall consider all groundwater uses and needs and shall develop rules which are fair and impartial.

SECTION 2.45. Subsection (b), Section 36.102, Water Code, is amended to read as follows:

(b) The board by rule may set reasonable civil penalties for breach of any rule of the district ~~[that shall]~~ not to exceed \$10,000 per day per violation, and each day of a continuing violation constitutes a separate violation ~~[the jurisdiction of a justice court as provided by Section 27.031, Government Code].~~

SECTION 2.46. Section 36.1071, Water Code, is amended by amending Subsections (a) and (b) and adding Subsection (h) to read as follows:

(a) Following notice and hearing, the district shall, in coordination with surface water management entities on a regional basis, develop a comprehensive management plan which addresses the following management goals, as applicable:

(1) providing the most efficient use of groundwater;  
(2) controlling and preventing waste of groundwater;  
(3) controlling and preventing subsidence;  
(4) addressing conjunctive surface water management issues; ~~and~~

(5) addressing natural resource issues;

(6) addressing drought conditions; and

(7) addressing conservation.

(b) After January 5, 2002, a [A] district management plan, or any amendments to a district management plan, shall be developed by the district using the district's best available data and forwarded to the regional water planning group for consideration in their planning process ~~[adopted after the Texas Water Development Board approval of a regional water plan for the region in which the district is located shall be consistent with the regional water plan].~~

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(h) In developing its management plan, the district shall use the groundwater availability modeling information provided by the executive administrator in conjunction with any available site-specific information provided by the district and acceptable to the executive administrator.

SECTION 2.47. Section 36.1072, Water Code, is amended by adding Subsection (g) to read as follows:

(g) In this subsection, "board" means the Texas Water Development Board. A person with a legally defined interest in groundwater in a district or the regional water planning group may file a petition with the board stating that a conflict requiring resolution may exist between the district's certified groundwater conservation district management plan developed under Section 36.1071 and the state water plan. If a conflict exists, the board shall facilitate coordination between the involved person or regional water planning group and the district to resolve the conflict. If conflict remains, the board shall resolve the conflict. The board action under this provision may be consolidated, at the option of the board, with related action under Section 16.053(p). If the board determines that resolution of the conflict requires a revision of the certified groundwater conservation district management plan, the board shall suspend the certification of the plan and provide information to the district. The district shall prepare any revisions to the plan specified by the board and shall hold, after notice, at least one public hearing at some central location within the district. The district shall consider all public and board comments, prepare, revise, and adopt its plan, and submit the revised plan to the board for certification. On the request of the district or the regional water planning group, the board shall include discussion of the conflict and its resolution in the state water plan that the board provides to the governor, the lieutenant governor, and the speaker of the house of representatives under Section 16.051(e).

SECTION 2.48. Section 36.108, Water Code, is amended to read as follows:

Sec. 36.108. JOINT PLANNING IN MANAGEMENT AREA.

(a) If two or more districts are located within the boundaries of the same management area, each district shall prepare a comprehensive management plan as required by Section 36.1071 covering that district's respective territory. On completion and certification of the plan as required by Section 36.1072, each district shall forward a copy of the new or revised management plan to the other districts in the management area. The boards of the districts shall consider the plans individually and shall compare them to other management plans then in force in the management area.

(b) The board of directors of each district in the management area may, by resolution, call for [a] joint planning [meeting] with ~~[the boards of directors of]~~ the other districts in the management area to review the management plans and accomplishments for the management area. ~~[The boards shall meet to consider the plans individually and shall compare them to other management plans then in force in the management area.]~~ In reviewing the management plans, the boards shall consider:

(1) the goals of each management plan and its impact on planning throughout the management area;

(2) the effectiveness of the measures established by each management plan for conserving and protecting groundwater and preventing waste, and the effectiveness of these measures in the management area generally; and

(3) any other matters that the boards consider relevant to the protection and conservation of groundwater and the prevention of waste in the management area.

(c) If a [A] joint meeting of the boards of directors is called, the meeting must be held in accordance with ~~[the Open Meetings Act,]~~ Chapter 551, Government

Code. Notice of the meeting shall be given in accordance with the requirements for notice of district board of directors meetings under that Act. In addition, notice of the meeting shall be published not later than the 30th day before the date of the scheduled meeting in a newspaper with general circulation in each county in the management area.

(d) A district in the management area may file with good cause a petition with the commission requesting an inquiry if the petitioner district adopted a resolution calling for joint planning and the other district or districts refused to join in the planning process or the process failed to result in adequate planning, and the petition provides evidence ~~believes~~ that:

(1) another district in the management area has failed to adopt rules;

(2) the groundwater in the management area is not adequately protected by the rules adopted by another district; or

(3) the groundwater in the management area is not adequately protected due to the failure of another district to enforce substantial compliance with its rules.

(e) Not later than the 90th day after the date the petition is filed, the commission shall review the petition and either:

(1) dismiss it if it finds that the evidence is not adequate to show that any of the conditions alleged in the petition exist; or

(2) select a review panel as provided in Subsection (f).

(f) If the petition is not dismissed under Subsection (e), the ~~The~~ commission shall ~~may~~ appoint a review panel consisting of a chairman and four other members. A director or general manager of a district located outside the management area that is the subject of the petition may be appointed to the review panel. The commission may not

appoint more than two members of the review panel from any one district. The commission also shall appoint a disinterested person to serve as a nonvoting recording secretary for the review panel. The recording secretary may be an employee of the commission. The recording secretary shall record and document the proceedings of the panel.

(g) Not later than the 120th day after appointment, the review panel shall review the petition and any evidence relevant to the petition and, in a public meeting, consider and adopt ~~prepare~~ a report to be submitted to the commission. The commission may direct the review panel to conduct public hearings at a location in the management area to take evidence on the petition. The review panel may attempt to negotiate a settlement or resolve the dispute by any lawful means.

(h) In its report, the review panel shall include:

(1) a summary of all evidence taken in any hearing on the petition;

(2) a list of findings and recommended actions appropriate for the commission to take and the reasons it finds those actions appropriate; and

(3) any other information the panel considers appropriate.

(i) The review panel shall submit its report to the commission.

(j) Districts located within the same management areas or in adjacent management areas may contract to jointly conduct studies or research, or to construct projects, under terms and conditions that the districts consider beneficial. These joint efforts may include studies of groundwater availability and quality, aquifer modeling, and the interaction of groundwater and surface water; educational programs; the purchase and sharing of equipment; and the implementation of projects to make groundwater available, including aquifer recharge, brush control, weather modification, desalination, regionalization, and treatment or conveyance facilities. The districts may contract under their existing authorizations including those of

Chapter 791, Government Code, if their contracting authority is not limited by Sections 791.011(c)(2) and (d)(3) and Section 791.014, Government Code.

SECTION 2.49. Section 36.113, Water Code, is amended by amending Subsection (d), adding a new Subsection (e), and relettering existing Subsections (e) and (f) as Subsections (f) and (g) to read as follows:

(d) Before granting or denying a permit, the district shall consider whether:

(1) the application conforms to the requirements prescribed by this chapter and is accompanied by the prescribed fees;

(2) the proposed use of water unreasonably affects existing groundwater and surface water resources or existing permit holders;

(3) the proposed use of water is dedicated to any beneficial use;

(4) the proposed use of water is consistent with the district's certified water management plan;

(5) the applicant has agreed to avoid waste and achieve water conservation; and

(6) the applicant has agreed that reasonable diligence will be used to protect groundwater quality and that the applicant will follow well plugging guidelines at the time of well closure.

(e) The district may impose more restrictive permit conditions on new permit applications and increased use by historic users if the limitations:

(1) apply to all subsequent new permit applications and increased use by historic users, regardless of type or location of use;

(2) bear a reasonable relationship to the existing district management plan; and

(3) are reasonably necessary to protect existing use.

(f) Permits may be issued subject to the rules promulgated by the district and subject to terms and provisions with reference to the drilling, equipping, completion, or alteration of wells or pumps that may be necessary to prevent waste and achieve water conservation, minimize as far as practicable the drawdown of the water table or the reduction of artesian pressure, lessen interference between wells, or control and prevent subsidence.

(g) [~~(f)~~] A district may require that changes in the withdrawal and use of groundwater under a permit not be made without the prior approval of a permit amendment issued by the district.

SECTION 2.50. Section 36.116, Water Code, is amended to read as follows:

Sec. 36.116. REGULATION OF SPACING AND PRODUCTION.

(a) In order to minimize as far as practicable the drawdown of the water table or the reduction of artesian pressure, to control subsidence, to prevent interference between wells, to prevent degradation of water quality, or to prevent waste, a district by rule may regulate:

(1) [~~provide for~~] the spacing of water wells by:

(A) requiring all water wells to be spaced a certain distance from property lines or adjoining wells;

(B) requiring wells with a certain production capacity, pump size, or other characteristic related to the construction or operation of and production from a well to be spaced a certain distance from property lines or adjoining wells; or

(C) imposing spacing requirements adopted by the board; and

(2) the production of groundwater by:

(A) setting production limits on wells;

(B) limiting the amount of water produced based on acreage or tract size;

(C) limiting the amount of water that may be produced from a defined number of acres assigned to an authorized well site;

(D) limiting the maximum amount of water that may be produced on the basis of acre-feet per acre or gallons per minute per well site per acre; or

(E) any combination of the above [~~and may~~ regulate the production of wells].

(b) In promulgating any rules limiting groundwater production, the district may preserve historic use before the effective date of the rules to the maximum extent practicable consistent with the district's comprehensive management plan under Section 36.1071.

(c) In regulating the production of groundwater based on tract size or acreage, a district may consider the service needs of a retail water utility. For purposes of this subsection, "retail water utility" shall have the meaning provided at Section 13.002.

SECTION 2.51. Section 36.117, Water Code, is amended to read as follows:

Sec. 36.117. EXEMPTIONS; EXCEPTION; LIMITATIONS. (a) A district may exempt wells from the requirement of obtaining [~~requirements to obtain~~] a drilling permit, an operating permit, or any other permit required by this chapter or the district's rules.

(b) A district may not require any [a] permit issued by the district for:

(1) ~~[drilling or producing from]~~ a well used solely for domestic use or for providing water for livestock or poultry on a tract of land larger than 10 acres that is either drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day;

(2) the drilling of a water well used solely to supply water for a rig that is actively engaged in drilling or exploration operations for an oil or gas well permitted by the Railroad Commission of Texas provided that the person holding the permit is responsible for drilling and operating the water well and the well is located on the same lease or field associated with the drilling rig; or ~~[alteration of the size of a well or to restrict the production of a well if the water produced or to be produced from the well is used or to be used to supply the domestic needs of 10 or fewer households and a person who is a member of each household is either the owner of the well, a person related to the owner or a member of the owner's household within the second degree by consanguinity, or an employee of the owner;]~~

(3) the drilling of a water well authorized under a permit issued by the Railroad Commission of Texas under Chapter 134, Natural Resources Code, or for production from such a well to the extent the withdrawals are required for mining activities regardless of any subsequent use of the water. ~~[or alteration of the size of a well or to restrict the production from the well if the water produced or to be produced from the well is used or to be used to provide water for feeding livestock and poultry connected with farming, ranching, or dairy enterprises; or~~

~~[(4) water wells to supply water for hydrocarbon production activities, regardless of whether those wells are producing, that are associated with any well permitted by the Railroad Commission of Texas drilled before September 1, 1985.~~

~~[(b) The board shall adopt rules determining the applicability of Subsection (a)(3) to facilities used primarily for feeding livestock.]~~



(c) ~~[The district shall not deny the owner of a tract of land, or his lessee, who has no well equipped to produce more than 25,000 gallons a day on the tract, either a permit to drill a well on his land or the privilege to produce groundwater from his land, subject to the rules of the district.~~

~~[(d)]~~ A district may not restrict the production of any well that is exempt from permitting under Subsection (b)(1) ~~[equipped to produce 25,000 gallons or less a day].~~

(d) Notwithstanding Subsection (b), a district may require a well to be permitted by the district and to comply with all district rules if:

(1) the purpose of a well exempted under Subsection (b)(2) is no longer solely to supply water for a rig that is actively engaged in drilling or exploration operations for an oil or gas well permitted by the Railroad Commission of Texas; or

(2) the withdrawals from a well exempted under Subsection (b)(3) are no longer necessary for mining activities or are greater than the amount necessary for mining activities specified in the permit issued by the Railroad Commission of Texas under Chapter 134, Natural Resources Code.

(e) An entity holding a permit issued by the Railroad Commission of Texas under Chapter 134, Natural Resources Code, that authorizes the drilling of a water well shall report monthly to the district:

(1) the total amount of water withdrawn during the month;

(2) the quantity of water necessary for mining activities; and

(3) the quantity of water withdrawn for other purposes.

~~[Nothing in this chapter applies to wells drilled for oil, gas, sulphur, uranium, or brine, or for core tests, or for injection of gas, saltwater, or other fluid, or for any other purpose, under permits issued by the Railroad Commission of Texas. A district may not require a drilling permit for a~~

~~well to supply water for drilling any wells permitted by the Railroad Commission of Texas. Any well that ceases to be used for these purposes and is then used as an ordinary water well is subject to the rules of the district. Water wells drilled after September 1, 1997, to supply water for hydrocarbon production activities must meet the spacing requirements of the district unless no space is available within 300 feet of the production well or the central injection station.]~~

(f) Notwithstanding Subsection (d), a district may not require a well exempted under Subsection (b)(3) to comply with the spacing requirements of the district.

~~[Water wells exempted under this section shall be equipped and maintained so as to conform to the district's rules requiring installation of casing, pipe, and fittings to prevent the escape of groundwater from a groundwater reservoir to any reservoir not containing groundwater and to prevent the pollution or harmful alteration of the character of the water in any groundwater reservoir.]~~

(g) A district may not deny an application for a permit to drill and produce water for hydrocarbon production activities if the application meets all applicable rules as promulgated by the district.

(h) A ~~[shall require]~~ water well ~~[wells]~~ exempted under Subsection (a) or (b) shall:

(1) ~~[this section to]~~ be registered in accordance with rules promulgated by the district; and

(2) ~~[before drilling. All exempt water wells shall]~~ be equipped and maintained so as to conform to the district's rules requiring installation of casing, pipe, and fittings to prevent the escape of groundwater from a groundwater reservoir to any reservoir not containing groundwater and to prevent the pollution or harmful alteration of the character of the water in any groundwater reservoir.

(i) The driller of a well exempted under Subsection (a) or (b) shall file the drilling log with the district.

(j) ~~(h)~~ A well to supply water for a subdivision of land for which a plat approval is required by Chapter 232, Local Government Code, ~~law~~ is not exempted under Subsection (b) ~~[this section]~~.

(k) Groundwater withdrawn from a well exempt from permitting or regulation under this section and subsequently transported outside the boundaries of the district is subject to any applicable production and export fees under Sections 36.122 and 36.205.

(l) This chapter applies to water wells, including water wells used to supply water for activities related to the exploration or production of hydrocarbons or minerals. This chapter does not apply to production or injection wells drilled for oil, gas, sulphur, uranium, or brine, or for core tests, or for injection of gas, saltwater, or other fluids, under permits issued by the Railroad Commission of Texas.

SECTION 2.52. Section 36.122, Water Code, is amended to read as follows:

Sec. 36.122. TRANSFER OF GROUNDWATER OUT OF DISTRICT. (a) If an application for a permit or an amendment to a permit under Section 36.113 proposes the transfer of groundwater outside of a district's boundaries, the district may also consider the provisions of this section in determining whether to grant or deny the permit or permit amendment.

(b) A district may promulgate rules requiring a person to obtain a permit or an amendment to a permit under Section 36.113 from the district for the transfer of groundwater out of the district to:

(1) increase, on or after March 2, 1997, the amount of groundwater to be transferred under a continuing arrangement in effect before that date; or

(2) transfer groundwater out of the district on or after March 2, 1997, under a new arrangement.

(c) Except as provided in Section 36.113(e), the district may not impose more restrictive permit conditions on transporters than the district imposes on existing in-district users.

(d) [(b)] The district may impose a reasonable fee for processing an application [for a permit] under this section. The fee may not exceed fees that the district imposes for processing other applications under Section 36.113. An application filed to comply with this section shall be considered and processed under the same procedures as other applications for permits under Section 36.113 and shall be combined with applications filed to obtain a permit for in-district water use under Section 36.113 from the same applicant.

(e) The district may impose a reasonable fee or surcharge for an export fee using one of the following methods:

(1) a fee negotiated between the district and the transporter;

(2) a rate not to exceed the equivalent of the district's tax rate per hundred dollars of valuation for each thousand gallons of water transferred out of the district or 2.5 cents per thousand gallons of water, if the district assesses a tax rate of less than 2.5 cents per hundred dollars of valuation; or

(3) for a fee-based district, a 50 percent export surcharge, in addition to the district's production fee, for water transferred out of the district.

[(e)] Before issuing a permit under this section, the district must give notice of the application and hold a public hearing.

[(d)] In reviewing a proposed transfer of groundwater out of the district [determining whether to issue a permit under this section], the district shall consider:

(1) the availability of water in the district and in the proposed receiving area during the period for which the water supply is requested;

(2) ~~the availability of feasible and practicable alternative supplies to the applicant;~~

~~[(3) the amount and purposes of use in the proposed receiving area for which water is needed;~~

~~[(4) the projected effect of the proposed transfer on aquifer conditions, depletion, subsidence, or effects on existing permit holders or other groundwater users within the district; and~~

(3) ~~[(5)]~~ the approved regional water plan and certified district management plan.

~~(g) [(e)]~~ The district may not deny a permit based on the fact that the applicant seeks to transfer groundwater outside of the district but may limit a permit issued under this section if conditions in Subsection (f) [(d)] warrant the limitation, subject to Subsection (c).

~~(h) [(f)]~~ In addition to conditions provided by Section 36.1131, the permit shall specify:

(1) the amount of water that may be transferred out of the district; and

(2) the period for which the water may be transferred.

(i) The period specified by Subsection (h)(2) shall be:

(1) at least three years if construction of a conveyance system has not been initiated prior to the issuance of the permit; or

(2) at least 30 years if construction of a conveyance system has been initiated prior to the issuance of the permit.

(j) A term under Subsection (i)(1) shall automatically be extended to the terms agreed to under Subsection (i)(2) if construction of a conveyance system is begun before the expiration of the initial term.

(k) Notwithstanding the period specified in Subsections (i) and (j) during which water may be transferred under a permit, a district may periodically review the amount of water that may be transferred under the permit and may limit the amount if additional factors considered in Subsection (f) warrant the limitation, subject to Subsection (c). The review described by this subsection may take place not more frequently than the period provided for the review or renewal of regular permits issued by the district. In its determination of whether to renew a permit issued under this section, the district shall consider relevant and current data for the conservation of groundwater resources and shall consider the permit in the same manner it would consider any other permit in the district.

(l) A district is prohibited from using revenues obtained under Subsection (e) to prohibit the transfer of groundwater outside of a district. A district is not prohibited from using revenues obtained under Subsection (e) for paying expenses related to enforcement of this chapter or district rules.

(m) [~~(g)~~] A district may not prohibit the export of groundwater if the purchase was in effect on or before June 1, 1997.

(n) [~~(h)~~] This section applies only to a transfer of water that is permitted [~~initiated or increased~~] after September 1, 1997 [~~the effective date of this section~~].

(o) [~~(i)~~] A district shall adopt rules as necessary to implement this section but may not adopt rules expressly prohibiting the export of groundwater.

(p) Subsection (e) does not apply to a district that is collecting an export fee or surcharge on March 1, 2001.

(q) In applying this section, a district must be fair, impartial, and nondiscriminatory.

SECTION 2.53. Section 36.205, Water Code, is amended to read as follows:

Sec. 36.205. AUTHORITY TO SET FEES. (a) A district may set fees for administrative acts of the district, such as filing applications. Fees set by a district may not unreasonably exceed the cost to the district of performing the administrative function for which the fee is charged.

(b) A district shall set and collect fees for all services provided outside the boundaries of the district. The fees may not unreasonably exceed the cost to the district of providing the services outside the district.

(c) A district may assess production fees based on the amount of water authorized by permit to be withdrawn from a well or the amount actually withdrawn. A district may assess the fees in lieu of, or in conjunction with, any taxes otherwise levied by the district. A district may use revenues generated by the fees for any lawful purpose. Production fees [~~Fees based on the amount of water to be withdrawn from a well~~] shall not exceed:

(1) \$1 [~~one dollar~~] per acre-foot payable annually [~~acre foot~~] for water used for agricultural use [~~the purpose of irrigating agricultural crops~~]; or

(2) \$10 per acre-foot payable annually [~~17 cents per thousand gallons~~] for water used for any other purpose.

(d) The Barton Springs-Edwards Aquifer Conservation District, the Lone Star Groundwater Conservation District, and the Guadalupe County Groundwater Conservation District may not charge production fees for an annual period greater than \$1 per acre-foot for water used for agricultural use or 17 cents per thousand gallons for water used for any other purpose. The Barton Springs-Edwards Aquifer Conservation District [~~A district~~]

~~affected by Subsection (c)(2) that also~~ may assess a water use fee against a specific municipality ~~in [shall assess]~~ an amount not to exceed 60 percent of the total funding of the district received from water use fees assessed against that municipality and other nonexempt users in the district. This subsection shall take precedence over all prior enactments.

(e) Subsection (c) does not apply to the following districts:

- (1) the Edwards Aquifer Authority;
- (2) the Fort Bend Subsidence District; ~~[ø]~~
- (3) the Harris-Galveston Coastal Subsidence District;
- (4) the Barton Springs-Edwards Aquifer Conservation

District; or

(5) any district that collects a property tax and that was created before September 1, 1999, unless otherwise authorized by special law.

(f) A district, including a district described under Subsection (d), may assess a production fee under Subsection (c) for any water produced under an exemption under Section 36.117 if that water is subsequently sold to another person.

(g) A district may assess a transportation fee under Section 36.122.

SECTION 2.54. Section 36.206, Water Code, is amended by amending Subsection (b) and adding Subsection (c) to read as follows:

(b) The rate of fees set for ~~[crop or livestock production or other]~~ agricultural uses shall be no more than 20 percent of the rate applied to municipal uses.

(c) District fees may not be used to purchase groundwater rights unless the purchased rights are acquired for conservation purposes and are permanently held in trust not to be produced.

SECTION 2.55. Subchapter I, Chapter 36, Water Code, is amended by adding Section 36.3011 to read as follows:

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Sec. 36.3011. FAILURE OF A DISTRICT TO CONDUCT JOINT

PLANNING. (a) If the board of a district within a common management area fails to forward a copy of its new or revised certified management plan under Section 36.108, the commission shall take appropriate action under Section 36.303.

(b) Not later than the 45th day after receiving the review panel's report under Section 36.108, the executive director or the commission shall take action to implement any or all of the panel's recommendations. If the commission finds that a district in the joint planning area has failed to adopt rules, the groundwater in the management area is not adequately protected by the rules adopted by the district, or the groundwater in the management area is not adequately protected because of the district's failure to enforce substantial compliance with its rules, the commission may take any action it considers necessary in accordance with Section 36.303.

SECTION 2.56. Subsection (a), Section 36.303, Water Code, is amended to read as follows:

(a) If Section 36.108, 36.301, or 36.302(f) applies, the commission, after notice and hearing in accordance with Chapter 2001, Government Code, shall take action the commission considers appropriate, including:

- (1) issuing an order requiring the district to take certain actions or to refrain from taking certain actions;
- (2) dissolving the board in accordance with Sections 36.305 and 36.307 and calling an election for the purpose of electing a new board;
- (3) requesting the attorney general to bring suit for the appointment of a receiver to collect the assets and carry on the business of the groundwater conservation district [~~removing the district's taxing authority~~]; or

(4) dissolving the district in accordance with Sections 36.304, 36.305, and 36.308.

SECTION 2.57. Subchapter I, Chapter 36, Water Code, is amended by adding Section 36.3035 to read as follows:

Sec. 36.3035. APPOINTMENT OF A RECEIVER. (a) If the attorney general brings a suit for the appointment of a receiver for a district, a district court shall appoint a receiver if an appointment is necessary to protect the assets of the district.

(b) The receiver shall execute a bond in an amount to be set by the court to ensure the proper performance of the receiver's duties.

(c) After appointment and execution of bond, the receiver shall take possession of the assets of the district specified by the court.

(d) Until discharged by the court, the receiver shall perform the duties that the court directs to preserve the assets and carry on the business of the district and shall strictly observe the final order involved.

(e) On a showing of good cause by the district, the court may dissolve the receivership and order the assets and control of the business returned to the district.

SECTION 2.58. Section 51.149, Water Code, is amended to read as follows:

Sec. 51.149. CONTRACTS. (a) No approvals other than those specified in Subsection (c) and in Section 1, Chapter 778, Acts of the 74th Legislature, Regular Session, 1995, need be obtained in order for a contract between a district and a municipality to be valid, binding, and enforceable against all parties to the contract. After approval by a majority of the electors voting at an election conducted in the manner of a bond election, a district may make payments under a contract from taxes for debt that does not exceed 30 years.

(b) [~~(b)~~] A contract may provide that the district will make payments under the contract from proceeds from the sale of notes or bonds, from taxes, from any other income of the district, or from any combination of these.

(c) [~~(c)~~] A district may make payments under a contract from taxes, other than maintenance taxes, after the provisions of the contract have been approved by a majority of the electors voting at an election held for that purpose.

(d) [~~(d)~~] Any contract election may be held at the same time as and in conjunction with an election to issue bonds, and the procedure for calling the election, giving notice, conducting the election, and canvassing the returns shall be the same as the procedure for a bond election.

(e) A district created pursuant to Chapter 628, Acts of the 68th Legislature, Regular Session, 1983, is defined as a municipal corporation and political subdivision pursuant to Chapter 405, Acts of the 76th Legislature, Regular Session, 1999, and is authorized to take action accordingly.

SECTION 2.59. Subsection (a), Section 182.052, Utilities Code, is amended to read as follows:

(a) Except as provided by Section 182.054, a government-operated utility may not disclose personal information in a customer's account record, or any information relating to the volume or units of utility usage or the amounts billed to or collected from the individual for utility usage, if the customer requests that the government-operated utility keep the information confidential. However, a government-operated utility may disclose information related to the customer's volume or units of utility usage or amounts billed to or collected from the individual for utility usage if the primary source of water for such utility was a sole-source designated aquifer.

SECTION 2.60. Section 1.03, Chapter 626, Acts of the 73rd

Legislature, Regular Session, 1993, is amended by adding Subdivisions (26) and (27) to read as follows:

(26) "Agricultural use" means any use or activity involving any of the following activities:

(A) cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers;

(B) the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, by a nursery grower;

(C) raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial value;

(D) wildlife management;

(E) raising or keeping equine animals; and

(F) planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure.

(27) "Nursery grower" means a person who grows more than 50 percent of the products that the person either sells or leases, regardless of the variety sold, leased, or grown. For the purpose of this definition, "grow" means the actual cultivation or propagation of the product beyond the mere holding or maintaining of the item before sale or lease and typically includes activities associated with the production or multiplying of stock, such as the development of new plants from cuttings, grafts, plugs, or seedlings.

SECTION 2.61. Subsection (e), Section 1.29, Chapter 626, Acts of the 73rd Legislature, Regular Session, 1993, is amended to read as follows:

(e) In developing an equitable fee structure under this section, the authority may establish different fee rates on a per acre-foot basis for different types of use. The fees must be equitable between types of uses. The fee rate for agricultural use shall be based on the volume of water withdrawn and may not be more than \$2 per acre-foot [~~20 percent of the fee rate for municipal use~~]. The authority shall assess the fees on the amount of water a permit holder is authorized to withdraw under the permit.

SECTION 2.62. Section 1.44, Chapter 626, Acts of the 73rd Legislature, Regular Session, 1993, is amended by adding Subsection (e) to read as follows:

(e) The authority may contract for injection or artificial recharge under this section only if provision is made for protecting and maintaining the quality of groundwater in the receiving part of the aquifer, and:

(1) the water used for artificial recharge is groundwater withdrawn from the aquifer; or

(2) the water is recharged through a natural recharge feature.

SECTION 2.63. Subsections (a) and (b), Section 4.03, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, are amended to read as follows:

(a) The authority may establish fees, rates, and charges, and classifications of fee payers and ratepayers, as necessary to enable the authority to fulfill the authority's purposes and regulatory obligations provided by this Act.

(b) The authority may charge against the owner of a well located in the authority's boundaries a fee on the amount of water pumped from the well. The board shall establish the rate of a fee under this subsection only after a special meeting on the fee. The board shall by rule exempt from the fee under this subsection those classes of wells that are not subject

to groundwater reduction requirements imposed by the subsidence district, except that if any of those classes of wells become subject at a future date to a groundwater reduction requirement imposed by the subsidence district, then the authority may after that date charge the fee under this subsection to those affected classes of wells. The board by rule may exempt any other classes of wells from the fee under this subsection. The board may not apply the fee to a well:

- (1) with a casing diameter of less than five inches that serves a single-family dwelling;
- (2) regulated under Chapter 27, Water Code;
- (3) used for irrigation of agricultural crops; or
- (4) ~~that produces 10 million gallons or less annually; or~~  
[~~5~~] used solely for electric generation.

### ARTICLE 3. DISTRICT RATIFICATIONS AND CREATIONS

#### PART 1. COW CREEK GROUNDWATER CONSERVATION DISTRICT

SECTION 3.0101. RATIFICATION OF CREATION. (a) The creation of the Cow Creek Groundwater Conservation District in Kendall County by Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, is ratified as required by Section 15(a) of that chapter, subject to approval at a confirmation election under Section 3.0108 of this part. The district is a governmental agency and a body politic and corporate.

(b) The district may develop and implement regulatory, conservation, and recharge programs that preserve and protect groundwater resources located in the district.

SECTION 3.0102. DEFINITIONS. In this part:

- (1) "District" means the Cow Creek Groundwater Conservation District.

(2) "Retail public utility" means a retail public utility as defined by Section 13.002, Water Code, that is providing service in the district on September 1, 2001.

(3) "Well" means any excavation drilled or dug into the ground that may intercept or penetrate a water-bearing stratum or formation.

SECTION 3.0103. BOUNDARIES. The boundaries of the district are coextensive with the boundaries of Kendall County.

SECTION 3.0104. POWERS. Except as otherwise provided by this part, the district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of the state, including Chapter 36, Water Code, applicable to groundwater conservation districts created under Section 59, Article XVI, Texas Constitution. This part prevails over any provision of general law, including Chapter 36, Water Code, or Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, that is in conflict or inconsistent with this part.

SECTION 3.0105. BOARD OF DIRECTORS. (a) The district is governed by a board of five directors.

(b) Temporary directors serve until initial directors are elected under Sections 3.0108 and 3.0109 of this part or until this part expires under Section 3.0108 of this part, whichever occurs first.

(c) Initial directors serve until permanent directors are elected under Section 3.0110 of this part.

(d) Permanent directors serve staggered four-year terms.

(e) A director serves until the director's successor has qualified.

(f) Each director must qualify to serve as director in the manner provided by Section 36.055, Water Code.

(g) A vacancy in the office of director is filled by appointment of the board until the next election for directors. At the next election for directors, a person shall be elected to fill the position. If the position is not scheduled to be filled at the election, the person elected to fill the position shall serve only for the remainder of the unexpired term.

SECTION 3.0106. METHOD OF ELECTING DIRECTORS:  
COMMISSIONERS PRECINCTS. (a) The directors of the district shall be elected according to the commissioners precinct method as provided by this part.

(b) One director shall be elected by the qualified voters of the entire district and one director shall be elected from each county commissioners precinct by the qualified voters of that precinct.

(c) A person shall indicate on the application for a place on the ballot the precinct that the person seeks to represent or that the person seeks to represent the district at large.

(d) When the boundaries of the commissioners precincts are changed, each director in office on the effective date of the change or elected to a term of office beginning on or after the effective date of the change serves in the precinct to which the director was elected for the entire term to which the director was elected, even though the change in boundaries places the person's residence outside the precinct for which the person was elected.

(e) To be eligible to be a candidate for or to serve as director from a county commissioners precinct, a person must be a registered voter in the precinct from which the person is elected or appointed. To be eligible to be a candidate for or to serve as director at large, a person must be a registered voter in the district.

SECTION 3.0107. TEMPORARY DIRECTORS. (a) The temporary board of directors shall be appointed by the county commissioners court. One temporary



director shall be appointed from each commissioners precinct, and one temporary director shall be a director at large.

(b) If a temporary director fails to qualify for office, the temporary directors who have qualified shall appoint a person to fill the vacancy. If at any time there are fewer than three qualified temporary directors, the Texas Natural Resource Conservation Commission shall appoint the necessary number of persons to fill all vacancies on the board.

SECTION 3.0108. CONFIRMATION AND INITIAL DIRECTORS ELECTION. (a) The temporary board of directors shall call and hold an election to confirm establishment of the district and to elect five initial directors.

(b) A person who wishes to be a candidate for the office of initial director may file an application with the temporary board of directors to have the candidate's name printed on the ballot as provided by Section 3.0106 of this part.

(c) At the confirmation and initial directors election, the temporary board of directors shall have the names of the five persons serving as temporary directors placed on the ballot by commissioners precinct and as at-large director, together with the name of any candidate filing for the office of director as provided by this section.

(d) If a majority of the votes cast at the election favor the creation of the district, the temporary directors shall declare the district created. If a majority of the votes cast at the election are against the creation of the district, the temporary directors shall declare the district defeated. The temporary directors shall file a copy of the election results with the Texas Natural Resource Conservation Commission.

(e) If a majority of the votes cast at the election are against the creation of the district, the temporary directors may call and hold subsequent elections to confirm establishment of the district and to elect initial directors. A subsequent election may not be held

earlier than the first anniversary of the date on which the previous election was held. If the district is not created before September 1, 2006, this part expires on that date.

(f) Section 41.001(a), Election Code, does not apply to a confirmation and initial directors election held under this section.

(g) Section 36.017(a), Water Code, does not apply to the district.

(h) Except as provided by this section, a confirmation and directors election must be conducted as provided by Sections 36.017(b)-(h), Water Code, and the Election Code.

SECTION 3.0109. INITIAL DIRECTORS. (a) If the district is created at the election, the temporary directors, at the time the vote is canvassed, shall declare the candidate receiving the most votes for each commissioners precinct or for the at-large director to be elected as the initial directors.

(b) The initial directors for Precincts 2 and 3 serve until the first regular meeting of the board of directors held after the first permanent directors election under Section 3.0110 of this part. The initial directors for Precincts 1 and 4 and the initial director representing the district at large serve until the first regular meeting of the board of directors held after the second permanent directors election under Section 3.0110 of this part.

SECTION 3.0110. ELECTION OF PERMANENT DIRECTORS. Beginning in the second year after the year in which the district is authorized to be created at a confirmation election, an election shall be held in the district on the first Saturday in May every two years to elect the appropriate number of directors to the board.

SECTION 3.0111. ADDITIONAL AUTHORITY. (a) The district may contract with one or more state agencies or other governmental bodies, including a county, a river authority, or another district, to carry out any function of the district.

(b) The district may require a drilling permit before a new well is drilled or an existing well is substantially altered. Notwithstanding an exemption for a well under Section 36.117, Water Code, written authorization granted by the district must be received before a new well is drilled or an existing well is substantially altered.

(c) The district may participate in the construction, implementation, and maintenance of best management practices for water resource management in the district and may engage in and promote the acceptance of best management practices through education efforts sponsored by the district. Construction, implementation, and maintenance of best management practices must address water quantity and quality practices such as brush management, prescribed grazing, recharge structures, water and silt detention and retention structures, plugging of abandoned wells, rainwater harvesting, and other treatment measures for the conservation of water resources.

(d) Reasonable fees, as determined by the district, may be imposed on an annual basis on each nonexempt well. The district shall adopt any rules necessary for the assessment and collection of fees under this subsection.

(e) The district may use money collected from fees:

(1) in any manner necessary for the management and operation of the district;

(2) to pay all or part of the principal of and interest on district bonds or notes; and

(3) for any purpose consistent with the district's certified water management plan.

(f) The district shall grant an exemption or other relief from ad valorem taxes on property on which a water conservation initiative has been implemented. The district shall adopt rules to implement this subsection. A retail public utility shall receive the

same exemption or relief from ad valorem taxes on property as any other customer of the district would receive.

(g) As a water conservation initiative to encourage retail public utilities to obtain water supplies from sources other than groundwater, the district shall grant an exemption or other relief from ad valorem taxes on property served by a retail public utility based on:

(1) the percentage of potable water supplied within the district by the retail public utility from sources other than groundwater compared to the total water supplied by the retail public utility for the preceding year; and

(2) the percentage of wastewater effluent produced by the retail public utility that is used as reclaimed water within the district compared to the total wastewater effluent produced by the retail public utility for the preceding year. The district may consider the impact of floods and equipment breakage on the retail public utility's ability to supply water from sources other than groundwater.

(h) The total amount of the exemption or other relief from ad valorem taxes may not exceed one-half of the tax levied by the district.

**SECTION 3.0112. PROHIBITED ACTS.** The district may not:

(1) impose an ad valorem property tax for administrative, operation, or maintenance expenses that exceeds the lesser of the rate approved by the majority of the qualified voters voting in the election authorizing the tax, or three cents per \$100 valuation;

(2) require the owner of a well used solely for domestic or livestock purposes to install a meter or measuring device on the well;

(3) enter into any contract or engage in any action to supply water to any person in the service area of any municipality or retail public utility located in the district, except with the consent of the municipality or retail public utility; or

(4) issue any bonds secured by ad valorem taxes before September 1, 2004.

## PART 2. CROSSROADS GROUNDWATER CONSERVATION DISTRICT

SECTION 3.0201. RATIFICATION OF CREATION. The creation of the Crossroads Groundwater Conservation District in Victoria County by Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, is ratified as required by Section 15(a) of that chapter, subject to approval at a confirmation election under Section 3.0210 of this part.

SECTION 3.0202. DEFINITIONS. In this part:

(1) "Board" means the district's board of directors.

(2) "Commissioners court" means the Victoria County Commissioners Court.

(3) "District" means the Crossroads Groundwater Conservation District.

SECTION 3.0203. LEGISLATIVE FINDINGS. The legislature finds that:

(1) the organization of the district is feasible and practicable;

(2) all of the land to be included in, and the residents of, the district will benefit from the creation of the district;

(3) there is a public necessity for the district; and

(4) the creation of the district will provide a benefit and utility to the public.

SECTION 3.0204. BOUNDARIES. The boundaries of the district are coextensive with the boundaries of Victoria County.

SECTION 3.0205. APPLICATION OF CHAPTER 36, WATER CODE; GENERAL POWERS AND DUTIES. (a) Except to the extent of any conflict with this part or as specifically limited by this part, the district is governed by and subject to Chapter 36, Water Code, and may exercise all of the powers contained in that chapter, including the power to issue bonds and levy and collect taxes and the power of eminent domain. The district may exercise all of the duties provided by Chapter 36, Water Code.

(b) This part prevails over any conflicting or inconsistent provision of Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999.

SECTION 3.0206. BOARD OF DIRECTORS. (a) The district is governed by a board of seven directors.

(b) The directors for Places 1-4 are appointed by the commissioners court. The directors for Places 5-7 are appointed by the city council of the City of Victoria.

(c) The directors shall select from their members persons to serve as chairman, vice chairman, and secretary.

SECTION 3.0207. QUALIFICATIONS OF BOARD MEMBERS. To be qualified for appointment as a director, a person must be a resident of the district and must be at least 18 years of age.

SECTION 3.0208. TERM OF OFFICE. (a) Except for the temporary and initial directors of the district, directors serve staggered four-year terms.

(b) A vacancy in the office of director is filled for the remainder of the term by appointment by the commissioners court or the city council of the City of Victoria, as appropriate.

SECTION 3.0209. TEMPORARY DIRECTORS. (a) On September 1, 2001, the following persons are designated as temporary directors of the district:

- (1) Place 1: Mark Dierlam
- (2) Place 2: Rocky Sanders
- (3) Place 3: S. F. Ruschhaupt III
- (4) Place 4: Joseph Dial
- (5) Place 5: Stephen Diebel
- (6) Place 6: Jerry James
- (7) Place 7: Denise McCue

(b) If a temporary director fails to qualify for office or if a vacancy occurs in the office of temporary director for any reason, the commissioners court shall appoint a person to fill a vacancy in Place 1, 2, 3, or 4, and the city council of the City of Victoria shall appoint a person to fill a vacancy in Place 5, 6, or 7.

(c) The temporary directors shall select from their members persons to serve as chairman, vice chairman, and secretary.

(d) The temporary directors serve until they declare the district created, at which time they become the initial directors of the district under Section 3.0211 of this part.

(e) To be qualified to serve as a temporary director, a person must be a resident of Victoria County and at least 18 years of age.

SECTION 3.0210. CONFIRMATION ELECTION. (a) Not later than October 1, 2001, and without the necessity of having a petition presented, the temporary directors shall meet and call an election to be held not later than January 1, 2002, within the boundaries of the proposed district to confirm the creation of the district.

(b) Section 41.001(a), Election Code, does not apply to an election called under this section.

(c) The ballot for the election shall be printed to provide for a vote for or against the following propositions:

(1) the creation of the Crossroads Groundwater Conservation District in Victoria County; and

(2) the levy and collection of a property tax in the district.

(d) The temporary board may include other propositions on the ballot that it considers necessary.

(e) If a majority of votes cast at the election favor the creation of the district, the temporary directors shall declare the district created. If a majority of the votes cast at the election are against the creation of the district, the temporary directors shall declare the district defeated. The temporary directors shall file a copy of the election results with the Texas Natural Resource Conservation Commission.

(f) If the creation of the district is defeated, further elections may be called and held after the first anniversary of the most recent confirmation election. If the district is not created by September 1, 2006, this part expires.

SECTION 3.0211. INITIAL DIRECTORS. (a) On confirmation of the creation of the district under Section 3.0210 of this part, the temporary directors become the initial directors of the district and serve terms as provided by Subsection (b) of this section, except that not later than the 60th day after the date on which the temporary directors declare the district created, the commissioners court may replace any director in Places 1-4 and the city council of the City of Victoria may replace any director in Places 5-7.



(b) The initial directors for Places 1, 3, 5, and 7 serve for four years following the confirmation of the district. The initial directors for Places 2, 4, and 6 serve for two years following the confirmation of the district.

(c) If, for any reason, an appointed director is not qualified to take office at the first regular meeting of the board following the director's appointment, the director for that place shall continue to serve until a successor has qualified.

SECTION 3.0212. LIMITATION ON TAXATION. The district may not impose an ad valorem tax at a rate that exceeds two cents on the \$100 valuation of taxable property in the district.

### PART 3. HAYS TRINITY GROUNDWATER CONSERVATION DISTRICT

SECTION 3.0301. RATIFICATION OF CREATION. The creation by Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, of the Hays Trinity Groundwater Conservation District in Hays County is ratified as required by Section 15(a) of that Act, subject to approval at a confirmation election under Section 3.0309 of this part.

SECTION 3.0302. DEFINITION. In this part, "district" means the Hays Trinity Groundwater Conservation District.

SECTION 3.0303. BOUNDARIES. The boundaries of the district are coextensive with the boundaries of Hays County, Texas, excluding any area in Hays County that is, on the effective date of this Act, within another groundwater conservation district with authority to require a permit to drill or alter a well for the withdrawal of groundwater. Not later than the 30th day after the date of the first meeting of the board of directors of the district, and before a confirmation election is held, the board shall prepare and file a description of district boundaries with the Hays County clerk and the Texas Natural Resource Conservation Commission.

SECTION 3.0304. GENERAL POWERS. (a) The district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of this state, including Chapter 36, Water Code, applicable to groundwater conservation districts created under Section 59, Article XVI, Texas Constitution. This part prevails over any provision of general law that is in conflict or inconsistent with this part, including any provision of Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999.

(b) Notwithstanding Subsection (a) of this section, the following provisions prevail over a conflicting or inconsistent provision of this part:

- (1) Sections 36.1071-36.108, Water Code;
- (2) Sections 36.159-36.161, Water Code; and
- (3) Subchapter I, Chapter 36, Water Code.

(c) The district may not enter property to inspect an exempt well without the property owner's permission.

(d) The Hays County Commissioners Court by resolution may require an election to affirm or reverse a decision of the board of directors of the district not later than six months after the date of the decision.

(e) The district may not adopt standards for the construction of a residential well that are more stringent than state standards for a residential well.

SECTION 3.0305. EXEMPT WELLS. (a) The following wells are exempt from the requirements of Chapter 36, Water Code, and may not be regulated, permitted, or metered by the district:

- (1) a well used for domestic use by a single private residential household and producing less than 25,000 gallons per day; and

(2) a well used for conventional farming and ranching activities, including such intensive operations as aquaculture, livestock feedlots, or poultry operations.

(b) The district may not require a permit to construct a well described by Subsection (a)(2) of this section.

(c) A well used for dewatering and monitoring in the production of coal or lignite is exempt from permit requirements, regulations, and fees imposed by the district.

SECTION 3.0306. FISCAL RESPONSIBILITIES. (a) The district annually shall prepare a budget showing proposed expenditures and disbursements and estimated receipts and collections for the next fiscal year and shall hold a public hearing on the proposed budget. The district must publish notice of the hearing at least once in a newspaper of general circulation in the county not later than the 10th day before the date of the hearing. A taxpayer of the district is entitled to appear at the hearing to be heard regarding any item in the proposed budget.

(b) At the written request of the Hays County Commissioners Court, the county auditor shall audit the performance of the district. The court may request a general audit of the performance of the district or may request an audit of only one or more district matters.

SECTION 3.0307. BOARD OF DIRECTORS. (a) The district is governed by a board of five directors.

(b) Temporary directors serve until initial directors are elected under Section 3.0309 of this part.

(c) Initial directors serve until permanent directors are elected under Section 3.0310 of this part.

(d) Permanent directors serve staggered two-year terms.

(e) Each director must qualify to serve as director in the manner provided by Section 36.055, Water Code.

(f) A director serves until the director's successor has qualified.

(g) If there is a vacancy on the board, the Hays County Commissioners Court shall appoint a director to serve the remainder of the term.

(h) A director may not receive a salary or other compensation for service as a director but may be reimbursed for actual expenses of attending meetings at the rate in effect for employees of Hays County.

SECTION 3.0308. METHOD OF ELECTING DIRECTORS: SINGLE-MEMBER DISTRICTS. (a) The temporary directors shall draw five numbered, single-member districts for electing directors.

(b) For the conduct of an election under Section 3.0309 or Section 3.0310 of this part, the board shall provide for one director to be elected from each of the single-member districts. A director elected from a single-member district represents the residents of that single-member district.

(c) To be qualified to be a candidate for or to serve as director, a person must be a registered voter in the single-member district that the person represents or seeks to represent.

(d) The initial or permanent directors may revise the districts as necessary or appropriate. The board of directors shall revise each single-member district after each federal decennial census to reflect population changes. At the first election after the single-member districts are revised, a new director shall be elected from each district. The directors shall draw lots to determine which two directors serve one-year terms and which three directors serve two-year terms.

SECTION 3.0309. CONFIRMATION AND INITIAL DIRECTORS

ELECTION. (a) The temporary board of directors shall call and hold an election to confirm establishment of the district and to elect initial directors.

(b) At the confirmation and initial directors election, the temporary board of directors shall have placed on the ballot the name of any candidate filing for an initial director's position and blank spaces to write in the names of other persons. A temporary director who is qualified to be a candidate under Section 3.0308 of this part may file for an initial director's position.

(c) Section 41.001(a), Election Code, does not apply to a confirmation and initial directors election held as provided by this section.

(d) Except as provided by this section, a confirmation and initial directors election must be conducted as provided by Sections 36.017(b)-(h), Water Code, and the Election Code.

SECTION 3.0310. ELECTION OF DIRECTORS. (a) On the first

Saturday in May or the first Tuesday after the first Monday in November of the first even-numbered year after the year in which the district is authorized to be created at a confirmation election, an election shall be held in the district for the election of three directors to serve two-year terms and two directors to serve one-year terms.

(b) On the first Saturday in May or the first Tuesday after the first Monday in November, as applicable, of each subsequent second year following the election held under Subsection (a) of this section, the appropriate number of directors shall be elected.

SECTION 3.0311. OTHER ELECTIONS. An election held by the

district, other than an election under Section 3.0309 or 3.0310 of this part, must be scheduled to coincide with a general election in May or November.

SECTION 3.0312. FUNDING AUTHORITY. (a) Except as provided by Sections 3.0305(b) and (c) of this part, the district may require a permit for the construction of a new well completed after the effective date of this Act and may charge and collect a construction permit fee not to exceed \$300.

(b) The district may levy and collect a water utility service connection fee not to exceed \$300 for each new water service connection made after the effective date of this Act. This subsection does not apply to a water utility that has surface water as its sole source of water.

(c) Notwithstanding Section 3.0304(a) of this part or Subchapter G, Chapter 36, Water Code, the district may not impose a tax or assess or collect any fees except as authorized by Subsection (a) or (b) of this section.

SECTION 3.0313. EXPIRATION DATE. If the creation of the district is not confirmed at a confirmation election held under Section 3.0309 of this part before September 1, 2003, this part expires on that date.

#### PART 4. LONE WOLF GROUNDWATER CONSERVATION DISTRICT

SECTION 3.0401. RATIFICATION OF CREATION. The creation of the Lone Wolf Groundwater Conservation District in Mitchell County by Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, is ratified as required by Section 15(a) of that chapter, subject to approval at a confirmation election under Section 3.0407 of this part.

SECTION 3.0402. DEFINITION. In this part, "district" means the Lone Wolf Groundwater Conservation District.

SECTION 3.0403. GENERAL POWERS. The district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of the state, including Chapter 36, Water Code, applicable to groundwater conservation districts created under Section 59, Article XVI, Texas Constitution. This part prevails over any provision of

general law, including Chapter 36, Water Code, or Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, that is in conflict or inconsistent with this part.

SECTION 3.0404. BOARD OF DIRECTORS. (a) The district is governed by a board of five directors.

(b) Temporary directors serve until initial directors are elected under Section 3.0407 of this part.

(c) Initial directors serve until permanent directors are elected under Section 3.0408 of this part.

(d) Permanent directors serve staggered four-year terms.

(e) Each director must qualify to serve as director in the manner provided by Section 36.055, Water Code.

(f) A director serves until the director's successor has qualified.

SECTION 3.0405. COMPENSATION OF DIRECTORS. A director is not entitled to fees of office but is entitled to reimbursement of actual expenses reasonably and necessarily incurred while engaging in activities on behalf of the district.

SECTION 3.0406. METHOD OF ELECTING DIRECTORS:  
COMMISSIONERS PRECINCTS. (a) The directors of the district shall be elected according to the commissioners precinct method as provided by this section.

(b) One director shall be elected by the voters of the entire district, and one director shall be elected from each county commissioners precinct by the voters of that precinct.

(c) To be eligible to be a candidate for or to serve as director at large, a person must be a registered voter in the district. To be eligible to be a candidate for or to serve as director from a county commissioners precinct, a person must be a registered voter of that precinct.

(d) A person shall indicate on the application for a place on the ballot:

(1) the precinct that the person seeks to represent; or

(2) that the person seeks to represent the district at large.

(e) When the boundaries of the commissioners precincts are changed, each director in office on the effective date of the change or elected to a term of office beginning on or after the effective date of the change serves in the precinct to which the director was elected for the entire term to which the director was elected, even though the change in boundaries places the person's residence outside the precinct for which the person was elected.

SECTION 3.0407. CONFIRMATION AND INITIAL DIRECTORS ELECTION. (a) The temporary board of directors shall call and hold an election to confirm establishment of the district and to elect initial directors.

(b) At the confirmation and initial directors election, the temporary board of directors shall have placed on the ballot the name of any candidate filing for an initial director position and blank spaces to write in the names of other persons. A temporary director who is eligible to be a candidate under Section 3.0406 of this part may file for an initial director position.

(c) Section 41.001(a), Election Code, does not apply to a confirmation and initial directors election held as provided by this section.

(d) Except as provided by this section, a confirmation and initial directors election must be conducted as provided by Sections 36.017(b)-(h), Water Code, and the Election Code.

SECTION 3.0408. ELECTION OF DIRECTORS. (a) On the first Saturday in May of the first even-numbered year after the year in which the district is authorized to be created at a confirmation election, an election shall be held in the district for the election of three directors to serve four-year terms and two directors to serve two-year terms.



(b) On the first Saturday in May of each subsequent second year following the election, the appropriate number of directors shall be elected.

SECTION 3.0409. LIMITATION ON TAXATION. The district may levy property taxes at a rate not to exceed 20 cents on each \$100 of assessed valuation to pay any part of the bonds or notes issued by the district if the authority to impose property taxes under this part is approved by a majority of the voters voting at a confirmation election under Section 3.0407 of this part or at a separate election called for that purpose by the board of directors.

SECTION 3.0410. EXPIRATION. If the creation of the district is not confirmed at a confirmation election held under Section 3.0407 of this part before September 1, 2003, the district is dissolved and this part expires on that date.

#### PART 5. LOST PINES GROUNDWATER CONSERVATION DISTRICT

SECTION 3.0501. RATIFICATION OF CREATION. The creation of the Lost Pines Groundwater Conservation District in Bastrop and Lee counties by Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, is ratified as required by Section 15(a) of that chapter, subject to approval at a confirmation election under Section 3.0507 of this part.

SECTION 3.0502. DEFINITIONS. In this part:

(1) "District" means the Lost Pines Groundwater Conservation District.

(2) "Public utility" means any person, corporation, public utility, water supply or sewer service corporation, municipality, political subdivision, or agency operating, maintaining, or controlling facilities in the state for providing potable water service for compensation.

SECTION 3.0503. BOUNDARIES. The boundaries of the district are coextensive with the boundaries of Bastrop and Lee counties, Texas.

SECTION 3.0504. POWERS. (a) The district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of the state, including Chapter 36, Water Code, applicable to groundwater conservation districts created under Section 59, Article XVI, Texas Constitution. This part prevails over any provision of general law, including Chapter 36, Water Code, or Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, that is in conflict or inconsistent with this part.

(b) The district may not impose a tax. The district may assess regulatory pumping fees for water produced in or exported from the district. The regulatory pumping fees the district assesses for water for crop or livestock production or other agricultural uses may not exceed 20 percent of the rate applied to water for municipal uses. Regulatory pumping fees based on the amount of water withdrawn from a well may not exceed:

(1) \$1 per acre-foot for water used for the purpose of irrigating agricultural crops; or

(2) 17 cents per thousand gallons for water used for any other purpose.

(c) The district may adopt a rule exempting a well that is not capable of producing more than 50,000 gallons of groundwater a day from a permit requirement, a fee, or a restriction on production.

SECTION 3.0505. GROUNDWATER WELLS UNDER JURISDICTION OF RAILROAD COMMISSION. (a) Groundwater wells drilled or operated within the district under permits issued by the Railroad Commission of Texas are under the exclusive jurisdiction of the railroad commission and are exempt from regulation by the district.

(b) Groundwater produced in an amount authorized by a railroad commission permit may be used within or exported from the district without obtaining a permit from the district.

(c) To the extent groundwater production exceeds railroad commission authorization, the holder of the railroad commission permit must apply to the district for appropriate permits for the excess production and is subject to the applicable regulatory fees.

(d) Groundwater produced from wells under the jurisdiction of the railroad commission is generally exempt from water district fees. However, the district may impose either a pumping fee or an export fee on groundwater produced from an otherwise exempt mine well that is used for municipal purposes or by a public utility. Any fee imposed by the district under this subsection may not exceed the fee imposed on other groundwater producers in the district.

SECTION 3.0506. BOARD OF DIRECTORS. (a) The district is governed by a board of 10 directors.

(b) Five directors shall be appointed from Bastrop County by the county judge of Bastrop County and five directors shall be appointed from Lee County by the county judge of Lee County.

(c) Temporary directors serve until their successors are appointed and have qualified.

(d) The temporary directors shall draw lots to determine:

(1) which three directors from each county will serve four-year terms that expire December 31, 2005; and

(2) which two directors from each county will serve two-year terms that expire December 31, 2003.

(e) In each subsequent second year following the initial appointment of directors, the appropriate number of directors shall be appointed.

(f) Except as provided by Subsection (d) of this section, directors serve staggered four-year terms.

(g) Directors may serve consecutive terms.

(h) Each director must qualify to serve as director in the manner provided by Section 36.055, Water Code.

(i) A director serves until the director's successor has qualified.

(j) If a vacancy occurs on the board of directors, the board may appoint a director to serve the remainder of the term.

(k) A director may receive fees of office as provided by Section 36.060, Water Code, and is entitled to reimbursement for reasonable actual expenses incurred in performing duties as a director.

SECTION 3.0507. INITIAL MEETING AND CONFIRMATION ELECTION. (a) As soon as practicable after September 1, 2001, the temporary directors shall meet to set the date for and call the confirmation election. The directors shall hold the meeting in conjunction with the regularly scheduled meeting of the directors.

(b) The election shall be held on the authorized election date in November if the United States Department of Justice has precleared this part by that time. If this part has not been precleared by the November election date, the confirmation election shall be held at the next authorized election date. The district shall contract with the county clerks of Bastrop and Lee counties to conduct the election.

(c) Except as provided by this section, the confirmation election must be conducted as provided by Sections 36.017 and 36.018, Water Code, and the Election Code.

(d) If a majority of the votes cast at an election held under this section is against the confirmation of the district, the temporary directors may not call another election under this section before the first anniversary of that election.

SECTION 3.0508. REGIONAL COOPERATION. The district shall:

(1) adopt a management plan detailing proposed efforts of the district to cooperate with other groundwater conservation districts;

(2) participate as needed in coordination meetings with adjacent groundwater conservation districts that share one or more aquifers with the district;

(3) coordinate the collection of data with adjacent groundwater conservation districts in such a way as to achieve relative uniformity of data type and quality;

(4) provide groundwater level information to adjacent groundwater conservation districts;

(5) investigate any groundwater pollution to identify the pollution's source;

(6) notify adjacent groundwater conservation districts and all appropriate agencies of any groundwater pollution detected and the source of pollution identified;

(7) provide to adjacent groundwater conservation districts annually an inventory of water wells in the district and an estimate of groundwater production within the district; and

(8) include adjacent groundwater conservation districts on mailing lists for district newsletters and information regarding seminars, public education events, news articles, and field days.

SECTION 3.0509. EXPIRATION. If the creation of this district is not confirmed at a confirmation election held under Section 3.0507 of this part before September 1, 2005, this part expires on that date.

SECTION 3.0510. CONFLICTS. If another bill relating to the Lost Pines Groundwater Conservation District is enacted by the 77th Legislature, Regular Session,

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2001, and becomes law, then, to the extent of any conflict between that Act and this part, the provisions of that Act shall prevail.

**PART 6. MCMULLEN GROUNDWATER CONSERVATION DISTRICT**

**SECTION 3.0601. RATIFICATION OF CREATION.** The creation of the McMullen Groundwater Conservation District in McMullen County by Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, is ratified as required by Section 15(a) of that chapter, subject to approval at a confirmation election under Section 3.0607 of this part.

**SECTION 3.0602. DEFINITION.** In this part, "district" means the McMullen Groundwater Conservation District.

**SECTION 3.0603. BOUNDARIES.** The boundaries of the district are coextensive with the boundaries of McMullen County.

**SECTION 3.0604. GENERAL POWERS.** (a) The district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of the state, including Chapter 36, Water Code, applicable to groundwater conservation districts created under Section 59, Article XVI, Texas Constitution. This part prevails over any provision of general law, including Chapter 36, Water Code, or Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, that is in conflict or inconsistent with this part.

(b) The rights, powers, privileges, authority, functions, and duties of the district are subject to the continuing right of supervision of the state to be exercised by and through the Texas Natural Resource Conservation Commission.

**SECTION 3.0605. BOARD OF DIRECTORS.** (a) The district is governed by a board of five directors.

(b) Temporary directors serve until initial directors are elected under Section 3.0607 of this part.

(c) Initial directors serve until permanent directors are elected under Section 3.0608 of this part.

(d) Permanent directors serve staggered four-year terms.

(e) Each director must qualify to serve as director in the manner provided by Section 36.055, Water Code.

(f) A director serves until the director's successor has qualified.

(g) If there is a vacancy on the board, the remaining directors shall appoint a director to serve the remainder of the term.

#### SECTION 3.0606. METHOD OF ELECTING DIRECTORS:

COMMISSIONERS PRECINCTS. (a) The directors of the district shall be elected according to the commissioners precinct method as provided by this section.

(b) One director shall be elected by the voters of the entire district and one director shall be elected from each county commissioners precinct by the voters of that precinct.

(c) To be qualified as a candidate for or to serve as director at large, a person must be a registered voter in the district. To be a candidate for or to serve as director from a county commissioners precinct, a person must be a registered voter of that precinct.

(d) A person shall indicate on the application for a place on the ballot:

(1) the precinct that the person seeks to represent; or

(2) that the person seeks to represent the district at large.

(e) When the boundaries of the commissioners precincts are changed, each director in office on the effective date of the change or elected to a term of office beginning on or after the effective date of the change serves in the precinct to which the director was elected for the entire term to which the director was elected, even though the change in boundaries places the person's residence outside the precinct for which the person was elected.

SECTION 3.0607. CONFIRMATION AND INITIAL DIRECTORS

ELECTION. (a) The temporary board of directors shall call and hold an election to confirm establishment of the district and to elect initial directors.

(b) At the confirmation and initial directors election, the temporary board of directors shall have placed on the ballot the names of the persons serving as temporary directors who intend to run for an initial director position and are qualified to be a candidate under Section 3.0606 of this part together with the name of any candidate filing for an initial director position and blank spaces to write in the names of other persons.

(c) If the district is created at the election, the temporary board of directors, at the time the vote is canvassed, shall:

(1) declare the qualified person who receives the most votes for each position to be elected as the initial director for that position; and

(2) include the results of the initial directors election in the district's election report to the Texas Natural Resource Conservation Commission.

(d) Section 41.001(a), Election Code, does not apply to a confirmation and initial directors election held as provided by this section.

(e) Except as provided by this section, a confirmation and initial directors election must be conducted as provided by Sections 36.017(b)-(h), Water Code, and the Election Code.

(f) If a majority of the votes cast at an election held under this section is against the confirmation of the district, the temporary directors may not call another election under this section before the first anniversary of that election.

SECTION 3.0608. ELECTION OF PERMANENT DIRECTORS.

(a) On the first Saturday in October of the second year after the year in which the district is authorized to be created at a confirmation election, an election shall be held in the district for the



election of directors from county commissioners precincts one and three, each of whom serves a two-year term, and directors from county commissioners precincts two and four and the director at large, each of whom serves a four-year term.

(b) On the first Saturday in October of each subsequent second year following the election, the appropriate number of directors shall be elected to the board, each of whom serves a four-year term.

SECTION 3.0609. LIMITATION ON TAXATION. The district may not impose an ad valorem tax at a rate that exceeds five cents on the \$100 valuation of taxable property in the district.

SECTION 3.0610. EXPIRATION. If the creation of the district is not confirmed at a confirmation election held under Section 3.0607 of this part before September 1, 2003, this part expires on that date.

#### PART 7. KIMBLE COUNTY GROUNDWATER CONSERVATION DISTRICT

SECTION 3.0701. CREATION. (a) A groundwater conservation district, to be known as the Kimble County Groundwater Conservation District, is created in Kimble County, subject to approval at a confirmation election under this part. The district is a governmental agency and a body politic and corporate.

(b) The district is created under and is essential to accomplish the purposes of Section 59, Article XVI, Texas Constitution.

SECTION 3.0702. DEFINITION. In this part, "district" means the Kimble County Groundwater Conservation District.

SECTION 3.0703. BOUNDARIES. The boundaries of the district are coextensive with the boundaries of Kimble County, Texas, excluding that part of Kimble County that lies within the boundaries of the Hickory Underground Water District.

SECTION 3.0704. FINDING OF BENEFIT. All of the land and other property included within the boundaries of the district will be benefited by the works and projects that are to be accomplished by the district under powers conferred by Section 59, Article XVI, Texas Constitution. The district is created to serve a public use and benefit.

SECTION 3.0705. GENERAL POWERS. (a) The district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of this state, including Chapter 36, Water Code, applicable to groundwater conservation districts created under Section 59, Article XVI, Texas Constitution. This part prevails over any provision of general law that is in conflict or is inconsistent with this part.

(b) Notwithstanding Subsection (a) of this section, the following provisions prevail over a conflicting or inconsistent provision of this part:

- (1) Sections 36.1071-36.108, Water Code;
- (2) Sections 36.159-36.161, Water Code; and
- (3) Subchapter I, Chapter 36, Water Code.

(c) Chapter 49, Water Code, does not apply to the district.

SECTION 3.0706. BOARD OF DIRECTORS. (a) The district is governed by a board of five directors.

(b) Temporary directors serve until initial directors are elected under this part.

(c) Initial directors serve until permanent directors are elected under this part.

(d) Permanent directors serve staggered four-year terms.

(e) Each director must qualify to serve as director in the manner provided by Section 36.055, Water Code.

(f) A director serves until the director's successor has qualified.

SECTION 3.0707. COMPENSATION OF DIRECTORS. A director is not entitled to fees of office but is entitled to reimbursement of actual expenses reasonably and necessarily incurred while engaging in activities on behalf of the district.

SECTION 3.0708. TEMPORARY DIRECTORS. (a) The temporary board of directors consists of five members appointed by the Commissioners Court of Kimble County.

(b) If a temporary director fails to qualify for office, the Commissioners Court of Kimble County shall appoint a person to fill the vacancy.

SECTION 3.0709. METHOD OF ELECTING DIRECTORS: SINGLE-MEMBER DISTRICTS. (a) The temporary directors shall draw five numbered, single-member districts for electing directors.

(b) For the conduct of an election under the following two sections of this part, the board shall provide for one director to be elected from each of the single-member districts. A director elected from a single-member district represents the residents of that single-member district.

(c) To be qualified to be a candidate for or to serve as director, a person must be a registered voter in the single-member district that the person represents or seeks to represent.

(d) The initial or permanent directors may revise the districts as necessary or appropriate. The board of directors shall revise each single-member district after each federal decennial census to reflect population changes. At the first election after the single-member districts are revised, a new director shall be elected from each district. The directors shall draw lots to determine which two directors serve two-year terms and which three directors serve four-year terms.

SECTION 3.0710. CONFIRMATION AND INITIAL DIRECTORS

ELECTION. (a) The temporary board of directors shall call and hold an election to confirm establishment of the district and to elect initial directors.

(b) At the confirmation and initial directors election, the temporary board of directors shall have placed on the ballot the name of any candidate filing for an initial director's position and blank spaces to write in the names of other persons. A temporary director who is qualified to be a candidate under the preceding section of this part may file for an initial director's position.

(c) Section 41.001(a), Election Code, does not apply to a confirmation and initial directors election held as provided by this section.

(d) Except as provided by this section, a confirmation and initial directors election must be conducted as provided by Sections 36.017(b)-(h), Water Code, and the Election Code.

SECTION 3.0711. ELECTION OF DIRECTORS. (a) On the first

Saturday in May of the first even-numbered year after the year in which the district is authorized to be created at a confirmation election, an election shall be held in the district for the election of three directors to serve four-year terms and two directors to serve two-year terms.

(b) On the first Saturday in May of each subsequent second year following the election, the appropriate number of directors shall be elected.

SECTION 3.0712. TAX RATE. The district may not levy a tax to pay any part of bonds or notes issued by the district that exceeds 20 cents on each \$100 of assessed valuation.

SECTION 3.0713. EFFECTIVE DATE; EXPIRATION DATE.

(a) This part takes effect September 1, 2001.

(b) If the creation of the district is not confirmed at a confirmation election held under this part before September 1, 2003, this part expires on that date.

PART 8. RED SANDS GROUNDWATER CONSERVATION DISTRICT

SECTION 3.0801. RATIFICATION OF CREATION. The creation of the Red Sands Groundwater Conservation District in Hidalgo County by Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, is ratified as required by Section 15(a) of that chapter, subject to approval at a confirmation election under Section 3.0808 of this part.

SECTION 3.0802. DEFINITION. In this part, "district" means the Red Sands Groundwater Conservation District.

SECTION 3.0803. BOUNDARIES. The district includes all of the territory contained in the following described area:

A 19,232 acre tract more or less out of San Salvador Del Tule Grant as recorded in Volume 10, Page 58 of the Hidalgo County, Texas map records and out of the Santa Anita Grant as recorded in Volume 7, Page 38 of the Hidalgo County, Texas map records.

Commencing at the Southeast Corner of this here in described boundary tract, said point being the intersection of the centerline of U.S. Highway 281 and the centerline of Farm to Market Road number 490 (F.M. 490) (West Hargill Road) as shown in the map of San Salvador Del Tule Grant as recorded in Volume 10, Page 58 of the Hidalgo County map records. Said point is also the point of beginning.

Thence, Westerly along the center line of the F.M. 490, an approximate distance of 18,400 feet to a point on the West line of San Salvador Del Tule Grant, said point also being the intersection of the centerline of F.M. 490 and the West line of the San Salvador Del Tule Grant,

Thence, Northerly along the West line of the San Salvador Del Tule Grant and the East line of the Santa Anita Grant at an approximate distance of 21,300 feet to a point, said point being an

inside corner of this herein described tract, and also being the Southeast corner of Redland Vineyards Subdivision as recorded in Volume 4, Page 51 of the Hidalgo County map records, Thence, Westerly along the South line of the Redland Vineyards Subdivision, an approximate distance of 4,238 feet to a point, said point being an outside corner of this herein described tract, said point also being the Southwest corner of the Redland Vineyard Subdivision, Thence, Northerly with the West line of Redland Vineyards Subdivision, at approximately 4,590.50 feet past a point, said point being the Northwest corner of Redland Vineyard Subdivision, and the Southwest corner of Delbridge Subdivision as recorded in Volume 5, Page 11, Hidalgo County map records, and continuing Northerly along the West line of Delbridge Subdivision for an approximate total distance of 6,646 feet to a point, said point being an inside corner of this herein described tract, and also being the Northwest corner of Delbridge Subdivision, Thence, Westerly along the South line of a 196.37 acres tract, known as the A.B. De Kock Tract, an approximate distance of 3,500 feet past the Southeast corner of share 4, out of the 8,374.70 acre tract partition out of the Santa Anita Grant as recorded in Volume 7, Page 38, in the Hidalgo County map records and continuing Westerly for an approximate total distance of 6,500 feet to a point, said point being an outside corner of this herein described tract and also being the Southwest corner of share 4, Thence, Northerly along the West line of share 4, an approximate total distance of 19,143 feet to a point, said point being the Northwest corner of this herein described tracts and, the intersection of the West line of share 4 and the centerline of Farm to Market Road number 1017, (F.M. 1017) Thence, in a Southeasterly direction, with the Right-of-Way centerline of Farm to Market Road number 1017 (F.M. 1017) an approximate total distance of 27,800 feet to a point, said point being the Northeast corner of this herein described tract, and also being the intersection of the

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centerline of F.M. 1017 Right-of-Way and the center line of the U.S. Highway 281

Right-Of-Way,

Thence, in a Southerly direction, with the centerline of U.S. Highway 281 Right-Of-Way, an approximate distance of 7,500 feet past Floral Road, and at approximate 21,700 feet past Red Gate Road and at approximate 29,700 feet past Laguna Seca Road and for an approximate total distance of 39,300 feet to the point of beginning of this here in described tract, said tract contains 19,232 Acres, More or Less.

SECTION 3.0804. FINDINGS RELATIVE TO BOUNDARIES.

The legislature finds that the boundaries and field notes of the district form a closure. A mistake in the field notes or in the copying of the field notes in the legislative process does not affect the organization, existence, or validity of the district, the right of the district to levy and collect taxes, or the legality or operation of the district or its governing body.

SECTION 3.0805. GENERAL POWERS. (a) Except as provided by this part, the district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of the state, including Chapter 36, Water Code, applicable to groundwater conservation districts created under Section 59, Article XVI, Texas Constitution. This part prevails over any provision of general law, including Chapter 36, Water Code, or Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, that is in conflict or inconsistent with this part.

(b) The rights, powers, privileges, authority, functions, and duties of the district are subject to the continuing right of supervision of the state, to be exercised by and through the Texas Natural Resource Conservation Commission.

SECTION 3.0806. BOARD OF DIRECTORS. (a) The district is governed by a board of five directors, each elected at large to one of five numbered places.

(b) To be eligible to serve as a director, an individual must reside in the district.

(c) Each director must qualify to serve as director in the manner provided by Section 36.055, Water Code.

(d) Permanent directors serve staggered three-year terms.

(e) A director serves until the director's successor has qualified.

(f) A vacancy in the office of director shall be filled by appointment of the board of directors until the next election of directors, at which election a person shall be elected to fill the position. If the position is not scheduled to be filled at the election, the person elected to fill the position serves only the remainder of the unexpired term.

(g) An appointed director who is qualified to serve as a director under Subsection (b) of this section is eligible to run for election to the board of directors.

SECTION 3.0807. TEMPORARY DIRECTORS. (a) The temporary board of directors is composed of:

(1) Lucas Hinojosa;

(2) Becky Guerra;

(3) Arcadio Guerra;

(4) Elizabeth Ann Sweet; and

(5) John Cozad.

(b) The temporary directors are not required to meet the eligibility requirements of permanent directors.

(c) Temporary directors serve until permanent directors are elected at the confirmation election under Section 3.0808 of this part.



SECTION 3.0808. CONFIRMATION AND INITIAL DIRECTORS

ELECTION. (a) The temporary board of directors shall call and hold an election to confirm establishment of the district and to elect initial directors.

(b) At the confirmation and initial directors election, the temporary board of directors shall have placed on the ballot the names of the candidates for each of the five numbered positions and blank spaces to write in the names of other persons. Names on the ballot may include persons serving as temporary directors who intend to run for an initial director position together with the name of any candidate filing for an initial director position.

(c) If a majority of the votes cast at the election are in favor of the creation of the district, the temporary board of directors shall declare the district created. If a majority of the votes cast at the election are against the creation of the district, the temporary board of directors shall declare the district defeated. The temporary board of directors shall file a copy of the election results with the Texas Natural Resource Conservation Commission.

(d) If a majority of the votes cast at the election are against the creation of the district, the temporary board of directors may not call another election under this section before the first anniversary of the date of the election.

(e) If the creation of the district is confirmed at the election, the temporary board of directors, at the time the vote is canvassed, shall:

(1) declare the qualified person who receives the most votes for each position to be elected as the initial director for that position; and

(2) include the results of the initial directors election in the district's election report to the Texas Natural Resource Conservation Commission.

(f) The initial directors shall draw lots to determine their terms so that:

(1) one director serves a one-year term that expires on the anniversary of the date the initial directors were elected;

(2) two directors serve two-year terms that expire on the anniversary of the date the initial directors were elected; and

(3) two directors serve three-year terms that expire on the anniversary of the date the initial directors were elected.

(g) Section 41.001(a), Election Code, does not apply to a confirmation and initial directors election held as provided by this section.

(h) Except as provided by this section, a confirmation election must be conducted as provided by Sections 36.017(b)-(h), Water Code, and the Election Code.

#### SECTION 3.0809. ELECTION OF PERMANENT DIRECTORS.

Beginning in the first year after the year in which the district is authorized to be created at a confirmation election, the board of directors shall call an election to be held in the district on the first Saturday of the month in which the initial directors were elected under Section 3.0808 of this part and every year after that date to elect the appropriate number of directors to the board.

SECTION 3.0810. ELIGIBLE DISTRICT VOTERS. Any person qualified to vote under the Election Code who resides in the district is eligible to vote in district elections.

SECTION 3.0811. TAXATION AUTHORITY. (a) The board of directors shall impose taxes in accordance with Subchapter G, Chapter 36, Water Code.

(b) Notwithstanding Section 36.201, Water Code, the board of directors may annually impose an ad valorem tax at a rate not to exceed two cents on each \$100 of assessed valuation unless a higher rate is approved by a majority of the voters of the district voting at an election called and held for that purpose.

SECTION 3.0812. TRANSPORTATION OF GROUNDWATER.

(a) The board of directors may adopt rules under Section 36.122, Water Code, requiring a permit to transport district groundwater outside the district. The board of directors shall authorize the transportation of groundwater for use outside the district if the board determines that the use is in the public interest. The board of directors may:

- (1) designate uses of water that are in the public interest; and
- (2) establish criteria for permits issued under the rules.

(b) Transportation projects for the use of groundwater outside the district that began before September 1, 2001, may continue without a permit if the use of groundwater is on land contiguous to the district's boundaries and is for domestic or livestock purposes.

SECTION 3.0813. EXPIRATION. If the creation of the district is not confirmed at a confirmation election held under Section 3.0808 of this part before September 1, 2003, this part expires on that date.

PART 9. REFUGIO GROUNDWATER CONSERVATION DISTRICT

SECTION 3.0901. RATIFICATION OF CREATION. The creation of the Refugio Groundwater Conservation District in Refugio County by Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, is ratified as required by Section 15(a) of that chapter, subject to approval at a confirmation election under Section 3.0907 of this part.

SECTION 3.0902. DEFINITION. In this part, "district" means the Refugio Groundwater Conservation District.

SECTION 3.0903. BOUNDARIES. The boundaries of the district are coextensive with the boundaries of Refugio County.

SECTION 3.0904. GENERAL POWERS. The district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of this

state, including Chapter 36, Water Code, applicable to groundwater conservation districts created under Section 59, Article XVI, Texas Constitution. This part prevails over any provision of general law, including Chapter 36, Water Code, or Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, that is in conflict or inconsistent with this part.

SECTION 3.0905. BOARD OF DIRECTORS. (a) The district is governed by a board of five directors.

(b) Temporary directors serve until initial directors are elected under Section 3.0907 of this part.

(c) Initial directors serve until permanent directors are elected under Section 3.0908 of this part.

(d) Permanent directors serve staggered four-year terms.

(e) Each director must qualify to serve as director in the manner provided by Section 36.055, Water Code.

(f) A director serves until the director's successor has qualified.

(g) If a director fails to qualify for office or if there is at any time a vacancy on the temporary board of directors, the commissioners court shall appoint a person to fill the vacancy.

SECTION 3.0906. METHOD OF ELECTING DIRECTORS:  
COMMISSIONERS PRECINCTS. (a) The directors of the district shall be elected according to the commissioners precinct method as provided by this section.

(b) One director shall be elected by the qualified voters of the entire district, and one director shall be elected from each county commissioners precinct by the qualified voters of that precinct.

(c) To be qualified to be a candidate for or to serve as director at large, a person must be a registered voter in the district. To be a candidate for or to serve as

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director from a county commissioners precinct, a person must be a registered voter of that precinct.

(d) A person shall indicate on the application for a place on the ballot:

(1) the precinct that the person seeks to represent; or

(2) that the person seeks to represent the district at large.

(e) When the boundaries of the commissioners precincts are changed, each director in office on the effective date of the change or elected to a term of office beginning on or after the effective date of the change serves in the precinct to which the director was elected for the entire term to which the director was elected, even though the change in boundaries places the person's residence outside the precinct for which the person was elected.

SECTION 3.0907. CONFIRMATION AND INITIAL DIRECTORS ELECTION. (a) The temporary board of directors shall call and hold an election to confirm establishment of the district and to elect initial directors.

(b) At the confirmation and initial directors election, the temporary board of directors shall have placed on the ballot the name of any candidate filing for an initial director position and blank spaces to write in the names of other persons. A temporary director who is qualified to be a candidate under Sections 3.0905 and 3.0906 of this part may file for an initial director position.

(c) Section 41.001(a), Election Code, does not apply to a confirmation and initial directors election held as provided by this section.

(d) Except as provided by this section, a confirmation and initial directors election must be conducted as provided by Sections 36.017(b)-(h), Water Code, and the Election Code.

SECTION 3.0908. ELECTION OF DIRECTORS. (a) On the first Saturday in May of the first even-numbered year after the year in which the district is authorized

to be created at a confirmation election, an election shall be held in the district for the election of three directors to serve four-year terms and two directors to serve two-year terms.

(b) On the first Saturday in May of each subsequent second year following the election, the appropriate number of directors shall be elected.

SECTION 3.0909. EXPIRATION. If the creation of the district is not confirmed at a confirmation election held under Section 3.0907 of this part before September 1, 2003, the district is dissolved and this part expires on that date.

#### PART 10. SOUTHEAST TRINITY GROUNDWATER CONSERVATION DISTRICT

SECTION 3.1001. PURPOSE. The purpose of this part is to ratify the Southeast Trinity Groundwater Conservation District, a locally controlled groundwater district, to protect, recharge, and prevent the waste of groundwater and to control subsidence of water from the groundwater reservoirs.

SECTION 3.1002. RATIFICATION OF CREATION. The creation of the Southeast Trinity Groundwater Conservation District by Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, is ratified as required by Section 15(a) of that Act, subject to a confirmation election under Section 3.1008 of this part.

SECTION 3.1003. DEFINITIONS. In this part:

- (1) "Board" means the board of directors of the district.
- (2) "Commission" means the Texas Natural Resource Conservation Commission.
- (3) "District" means the Southeast Trinity Groundwater Conservation District.

SECTION 3.1004. BOUNDARIES. The boundaries of the district are as follows:

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BEGINNING at the point of intersection of the Bexar County - Comal County - Kendall County line:

THENCE following the meanders of the Cibolo Creek, the Bexar County - Comal County line in an Easterly direction to the point of intersection with latitude 29<sup>^</sup> 40':

THENCE along 29<sup>^</sup> 40' in a Southeasterly direction to the point of intersection with Farm to Market Road 3009:

THENCE with the centerline of Farm to Market Road 3009 in a Southerly direction to the point of intersection with the centerline of Schoenthal Road:

THENCE with the centerline of Schoenthal Road in a Northeasterly direction to the point of intersection with the centerline of Farm to Market Road 1863:

THENCE with the centerline of Farm to Market Road 1863 in an Easterly direction to the point of intersection with the centerline of Mission Valley Road:

THENCE with the centerline of Mission Valley Road in a Northeasterly direction to the point of intersection with the centerline of State Highway 46;

THENCE with the centerline of State Highway 46 in a Northwesterly direction to the point of intersection with the centerline of Hueco Springs Loop Road:

THENCE with the centerline of Hueco Springs Loop Road in a Northeasterly then Easterly direction to the point of intersection with the centerline of River Road:

THENCE with the centerline of River Road in a Northeasterly direction to the point of intersection with the Guadalupe River at the First Crossing:

THENCE following the meanders of the Guadalupe River in a Northerly direction to the point of intersection of the centerlines of the Guadalupe River and Deep Creek:

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[Note: the next four paragraphs coincide with the Southern boundary of Comal County Voters Precinct 18]

THENCE along the meanders of Deep Creek in a Northeasterly direction to the point of intersection of the centerline of Deep Creek and the South line of the G. F. Lawrence Survey No. 33, Abstract No. 358:

THENCE with the South line of the G. F. Lawrence Survey No. 33, Abstract No. 358 in a Northeasterly, Southeasterly, and Northeasterly direction to the point of intersection of the South centerline of Farm to Market Road 306 being at approximately Engineers Station 397+98.3:

THENCE with the centerline of Farm to Market Road 306 in a Southeasterly direction to the point of intersection of the centerlines of Farm to Market Road 306 and the William Pfeuffer private ranch road:

THENCE with the approximate bearing N 69° E and approximate distance 5,000 feet to an angle point in the Comal County - Hays County Line:

THENCE with the Comal County - Hays County line in a Northwesterly direction to the point of intersection of the Comal County - Hays County line with the Comal County - Blanco County line:

THENCE with the Comal County - Blanco County line in a Southwesterly direction to the point of intersection of the Comal County - Blanco County - Kendall County line, continuing with the Comal County - Kendall County line in a Southwesterly direction to point of intersection of the Kendall County - Comal County - Bexar County line being the Point of Beginning.

#### SECTION 3.1005. FINDINGS RELATIVE TO BOUNDARIES.

The legislature finds that the boundaries and field notes of the district form a closure. A mistake in the field notes or in copying the field notes in the legislative process does not affect the

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organization, existence, or validity of the district, the right of the district to levy and collect taxes, or the legality or operation of the district or its governing body.

SECTION 3.1006. AUTHORITY OF DISTRICT. (a) Except as provided by this section or otherwise by this part, the district has the same permitting and general management powers as those granted under Chapter 36, Water Code.

(b) The district has no regulatory jurisdiction over the Edwards Aquifer or any surface water supply.

(c) The board by rule may impose reasonable fees, including fees for groundwater transported out of the district, on each groundwater well in the district that is not exempt from regulation by the district, based on the amount of water withdrawn from the well. The fees may be assessed annually, based on the size of column pipe used in the wells, pump capacity, or actual, authorized, or anticipated pumpage, to pay the maintenance and operating expenses of the district's regulation of groundwater.

(d) Section 36.205(c), Water Code, does not apply to the district.

(e) The district may assess an ad valorem property tax not to exceed seven cents per \$100 valuation for administrative, operation, and maintenance expenses if approved by a majority of the qualified voters voting in an election authorizing the tax.

(f) Any district conservation fee paid by a retail public utility to the district shall be:

(1) collected by the retail public utility directly as a regulatory fee from the customers of the utility and paid to the district; and

(2) shown as a separate line item on the customer's bill.

(g) Fees may not be assessed for groundwater withdrawn from the Edwards Aquifer.

(h) The district shall determine which classes of wells are exempt from permitting requirements.

(i) The district may not require a permit for:

(1) the drilling of or producing from a well either drilled, completed, or equipped so that it is capable of producing less than 10,000 gallons of water per day; or

(2) the drilling of or alteration of the size of a well or to restrict the production of a well if the water produced or to be produced from the well is or will be used to supply the domestic needs of five or fewer households in which a person who is a member of each household is either the owner of the well, a person related to the owner or to a member of the owner's household within the second degree by consanguinity, or an employee of the owner.

(j) The district may construct according to, implement, and maintain best management practices in the district and may engage in and promote acceptance of best management practices through education efforts sponsored by the district for the purposes of water quality and water availability practices such as brush management, recharge enhancement, water and silt detention and retention structures, plugging of abandoned wells, and other treatment measures for the conservation of groundwater resources.

SECTION 3.1007. BOARD OF DIRECTORS. (a) The district is governed by a board of five directors.

(b) Temporary directors have been appointed by Comal County Commissioners Court and shall serve until initial directors are elected under Section 3.1008 of this part.

(c) The temporary directors are:

(1) Cal Perrine;

- (2) Ernest T. Lee;
- (3) Jill Sondeen;
- (4) Larry Hull; and
- (5) Stovy Bowlin.

(d) Initial directors shall be elected at a confirmation election and serve until permanent directors are elected under Section 3.1009 of this part.

(e) Permanent directors serve staggered four-year terms.

(f) The directors shall be elected from four precincts, and one director will represent the district at large. No more than two precincts may be in a single municipality.

(g) A member of the board must reside in and be a registered voter in the precinct from which the person is elected or appointed if representing a precinct or must reside and be registered to vote in the district if representing the district at large.

(h) Directors may serve consecutive terms.

(i) In an election for board members, a write-in vote may not be counted unless the name written in appears on the list of write-in candidates. A declaration of write-in candidacy must be filed not later than 5 p.m. of the 45th day before election day.

(j) Vacancies in the office of director are filled by appointment of the board. If the vacant office is not scheduled for election within the next two years at the time of the appointment, the board shall order an election for the unexpired term to be held as part of the next regularly scheduled directors election. The appointed director's term ends on qualification of the director elected at that election.

(k) The district may not issue bonds before September 1, 2004.

SECTION 3.1008. CONFIRMATION ELECTION AND ELECTION OF INITIAL DIRECTORS. (a) As soon as practicable after September 1, 2001, the temporary board of directors may set the date for, call, and hold an election:

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- (1) to confirm establishment of the district;
- (2) to elect five initial directors; and
- (3) to authorize the district to impose a tax.

(b) The election may be held on the first authorized election date after the United States Department of Justice has precleared this part. The district shall contract with the county clerk of Comal County to conduct the election.

(c) The elected initial directors shall draw lots to determine their terms so that:

(1) two of the initial directors serve two-year terms that expire on the uniform election date in November of the second year after the date the initial directors were elected; and

(2) the remaining three initial directors serve four-year terms that expire on the uniform election date in November of the fourth year after the year in which the initial directors were elected.

(d) Section 41.001(a), Election Code, does not apply to a confirmation and directors election held as provided by this section.

(e) Except as provided by this section, a confirmation and directors election must be conducted as provided by Sections 36.017(b)-(h), Water Code, and the Election Code.

(f) The Comal County Commissioners Court shall pay the expenses of conducting the confirmation and initial directors election, subject to reimbursement from the district if the establishment of the district is confirmed or from available revenues, including funds allocated under Section 36.160, Water Code, if the establishment of the district is defeated.

(g) If the district is defeated, the temporary directors may call and hold subsequent elections to confirm establishment of the district. A subsequent election may

not be held earlier than the first anniversary of the date on which the previous election was held. If the district has not been confirmed at an election held under this section before the fourth anniversary of the effective date of this part, the district is dissolved on that date, except that any debts incurred shall be paid and the organization of the district shall be maintained until all debts are paid.

**SECTION 3.1009. ELECTION OF PERMANENT DIRECTORS.**

(a) On the uniform election date in November of the second year after the year in which initial directors are elected, an election shall be held in the district to elect two permanent directors for the positions of the two initial directors serving two-year terms.

(b) On the uniform election date in November of each subsequent second year following the election held under Subsection (a) of this section, an election shall be held to elect the appropriate number of permanent directors to the board.

**SECTION 3.1010. COORDINATION WITH OTHER DISTRICTS.**

The district may coordinate activities with other groundwater districts that regulate the Trinity Aquifer for the purposes of conjunctively managing the common resource.

**SECTION 3.1011. MODIFICATION OF DISTRICT.** The district may be modified only under Subchapter J, Chapter 36, Water Code, and by subsequent acts of the legislature.

**SECTION 3.1012. STATUTORY INTERPRETATION.** Except as otherwise provided by this part, if there is a conflict between this part and Chapter 36, Water Code, or Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, this part controls.

**PART 11. TEXANA GROUNDWATER CONSERVATION DISTRICT**

**SECTION 3.1101. RATIFICATION OF CREATION.** The creation of the Texana Groundwater Conservation District in Jackson County by Chapter 1331, Acts of

the 76th Legislature, Regular Session, 1999, is ratified as required by Section 15(a) of that chapter, subject to approval at a confirmation election under Section 3.1107 of this part.

SECTION 3.1102. DEFINITION. In this part, "district" means the Texana Groundwater Conservation District.

SECTION 3.1103. BOUNDARIES. The boundaries of the district are coextensive with the boundaries of Jackson County.

SECTION 3.1104. GENERAL POWERS. The district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of the state, including Chapter 36, Water Code, applicable to groundwater conservation districts created under Section 59, Article XVI, Texas Constitution. This part prevails over any provision of general law, including Chapter 36, Water Code, or Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, that is in conflict or inconsistent with this part.

SECTION 3.1105. BOARD OF DIRECTORS. (a) The district is governed by a board of seven directors.

(b) Temporary directors serve until initial directors are elected under Section 3.1107 of this part.

(c) Initial directors serve until permanent directors are elected under Section 3.1108 of this part.

(d) Permanent directors serve staggered four-year terms.

(e) Each director must qualify to serve as director in the manner provided by Section 36.055, Water Code.

(f) A director serves until the director's successor has qualified.

(g) If there is a vacancy on the board, the remaining directors shall appoint a director to serve the remainder of the term.

(h) A director may not receive a salary or other compensation for service as a director but may be reimbursed for actual expenses of attending meetings at the rate in effect for employees of Jackson County.

**SECTION 3.1106. METHOD OF ELECTING DIRECTORS:**

**COMMISSIONERS PRECINCTS.** (a) The directors of the district shall be elected according to the commissioners precinct method as provided by this section.

(b) Three directors shall be elected by the qualified voters of the entire district, and one director shall be elected from each county commissioners precinct by the qualified voters of that precinct.

(c) To be qualified to be a candidate for or to serve as a director at large, a person must be a registered voter in the district. To be a candidate for or to serve as director from a county commissioners precinct, a person must be a registered voter of that precinct.

(d) A person shall indicate on the application for a place on the ballot:

- (1) the precinct that the person seeks to represent; or
- (2) that the person seeks to represent the district at large.

(e) When the boundaries of the commissioners precincts are changed, each director in office on the effective date of the change or elected to a term of office beginning on or after the effective date of the change serves in the precinct to which the director was elected for the entire term to which the director was elected, even though the change in boundaries places the person's residence outside the precinct for which the person was elected.

**SECTION 3.1107. CONFIRMATION AND INITIAL DIRECTORS**

**ELECTION.** (a) The temporary board of directors shall call and hold an election to confirm establishment of the district and to elect initial directors.

(b) At the confirmation and initial directors election, the temporary board of directors shall have placed on the ballot the name of any candidate filing for an initial director position and blank spaces to write in the names of other persons. A temporary director who is qualified to be a candidate under Sections 3.1105 and 3.1106 of this part may file for an initial director position.

(c) Section 41.001(a), Election Code, does not apply to a confirmation and initial directors election held as provided by this section.

(d) Except as provided by this section, a confirmation and initial directors election must be conducted as provided by Sections 36.017(b)-(h), Water Code, and the Election Code.

(e) If the majority of the votes cast at an election held under this section is against the confirmation of the district, the temporary directors may not call another election under this section before the first anniversary of that election.

SECTION 3.1108. ELECTION OF DIRECTORS. (a) On the first Saturday in May of the first even-numbered year after the year in which the district is authorized to be created at a confirmation election, an election shall be held in the district for the election of two directors at large and two directors representing precincts to serve four-year terms and one director at large and two directors representing precincts to serve two-year terms.

(b) On the first Saturday in May of each subsequent second year following the election, the appropriate number of directors shall be elected.

SECTION 3.1109. LIMITATION ON TAXATION. The district may not levy or collect an ad valorem tax at a rate that exceeds two cents on each \$100 valuation of taxable property in the district.

SECTION 3.1110. CONTRACTS WITH GOVERNMENT ENTITIES. (a) The district may contract with other government entities.

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(b) The district may contract with other governmental entities, including river authorities located in the district, for the performance of any or all district functions. A river authority with which the district contracts under this section may perform district functions as provided by the contract.

#### PART 12. TRI-COUNTY GROUNDWATER CONSERVATION DISTRICT

SECTION 3.1201. RATIFICATION OF CREATION. The creation of the Tri-County Groundwater Conservation District in Foard, Hardeman, and Wilbarger counties by Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, is ratified as required by Section 15(a) of that chapter, subject to approval at a confirmation election under Section 3.1207 of this part.

SECTION 3.1202. DEFINITION. In this part, "district" means the Tri-County Groundwater Conservation District.

SECTION 3.1203. BOUNDARIES. The boundaries of the district are coextensive with the boundaries of Foard, Hardeman, and Wilbarger counties.

SECTION 3.1204. GENERAL POWERS. The district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of the state, including Chapter 36, Water Code, applicable to groundwater conservation districts created under Section 59, Article XVI, Texas Constitution. This part prevails over any provision of general law, including Chapter 36, Water Code, or Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, that is in conflict or inconsistent with this part.

SECTION 3.1205. BOARD OF DIRECTORS. (a) The district is governed by a board of six directors. Two directors are appointed by the commissioners court of each county in the district.

(b) Each director must qualify to serve as director in the manner provided by Section 36.055, Water Code.

(c) Directors other than initial directors serve staggered four-year terms.

(d) A director serves until the director's successor has qualified.

(e) If there is a vacancy on the board, the appropriate commissioners court shall appoint a director to serve the remainder of the term.

(f) The appropriate commissioners court shall appoint a director to succeed a director on or before the date the director's term expires.

(g) A director may not receive a salary or other compensation for service as a director but may be reimbursed for actual expenses of attending meetings.

SECTION 3.1206. APPOINTMENT AND TERMS OF INITIAL DIRECTORS. (a) As soon as practicable after September 1, 2001, the commissioners courts of Foard, Hardeman, and Wilbarger counties shall each appoint two initial directors.

(b) The initial directors serve terms as follows:

(1) the two initial directors appointed by the Foard County Commissioners Court serve terms expiring February 1, 2002;

(2) the two initial directors appointed by the Hardeman County Commissioners Court serve terms expiring February 1, 2004; and

(3) the two initial directors appointed by the Wilbarger County Commissioners Court serve terms expiring February 1, 2006.

SECTION 3.1207. CONFIRMATION ELECTION. (a) The board of directors shall call and hold an election to confirm the establishment of the district.

(b) Section 41.001(a), Election Code, does not apply to a confirmation election held as provided by this section.

(c) Except as provided by this section, a confirmation election must be conducted as provided by Sections 36.017(b)-(h), Water Code, and the Election Code.

SECTION 3.1208. TAXING AUTHORITY. The district may levy and collect an ad valorem tax in the district at a rate not to exceed one cent on each \$100 of assessed valuation.

SECTION 3.1209. EXPIRATION. If the creation of the district is not confirmed at a confirmation election held under Section 3.1207 of this part before September 1, 2003, the district is dissolved and this part expires on that date.

PART 13. BRAZOS VALLEY GROUNDWATER CONSERVATION DISTRICT

SECTION 3.1301. RATIFICATION OF CREATION. The creation by Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999, of the Brazos Valley Groundwater Conservation District in Robertson and Brazos counties is ratified as required by Section 15(a) of that Act, subject to approval at a confirmation election under Section 3.1312 of this part.

SECTION 3.1302. DEFINITION. In this part, "district" means the Brazos Valley Groundwater Conservation District.

SECTION 3.1303. BOUNDARIES. The boundaries of the district are coextensive with the boundaries of Robertson and Brazos counties, Texas.

SECTION 3.1304. GENERAL POWERS. (a) Except as otherwise provided by this part, the district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of this state, including Chapter 36, Water Code, applicable to groundwater conservation districts created under Section 59, Article XVI, Texas Constitution. This part prevails over any provision of general law that is in conflict or inconsistent with this part, including any provision of Chapter 36, Water Code, or Chapter 1331, Acts of the 76th Legislature, Regular Session, 1999.

(b) The district does not have the authority granted by the following provisions of Chapter 36, Water Code:

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(1) Section 36.105, relating to eminent domain; and

(2) Sections 36.020 and 36.201-36.204, relating to taxes.

SECTION 3.1305. BONDS. The district may issue bonds and notes under Sections 36.171-36.181, Water Code, not to exceed \$500,000 of total indebtedness at any time.

SECTION 3.1306. FEES. (a) The board of directors of the district by rule may impose reasonable fees on each well for which a permit is issued by the district and which is not exempt from regulation by the district. A fee may be based on the size of column pipe used by the well or on the actual, authorized, or anticipated amount of water to be withdrawn from the well.

(b) The initial fee shall be based on the amount of water to be withdrawn from the well. The initial fee:

(1) may not exceed:

(A) \$0.25 per acre-foot for water used for irrigating agricultural crops or operating existing steam electric stations; or

(B) \$0.0425 per thousand gallons for water used for any other purpose; and

(2) may be increased at a cumulative rate not to exceed three percent per year.

(c) In addition to the fee authorized under Subsection (b) of this section, the district may impose a reasonable fee or surcharge for an export fee using one of the following methods:

(1) a fee negotiated between the district and the transporter;

or

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(2) a combined production and export fee not to exceed 17 cents per thousand gallons for water used.

SECTION 3.1307. GROUNDWATER WELLS UNDER JURISDICTION OF RAILROAD COMMISSION. (a) Groundwater wells drilled or operated within the district under permits issued by the Railroad Commission of Texas are under the exclusive jurisdiction of the railroad commission and are exempt from regulation by the district.

(b) Groundwater produced in an amount authorized by a railroad commission permit may be used within or exported from the district without obtaining a permit from the district.

(c) To the extent groundwater production exceeds railroad commission authorization, the holder of the railroad commission permit must apply to the district for appropriate permits for the excess production and is subject to the applicable regulatory fees.

(d) Groundwater produced from wells under the jurisdiction of the railroad commission is generally exempt from water district fees. However, the district may impose either a pumping fee or an export fee on groundwater produced from an otherwise exempt mine well that is used for municipal purposes or by a public utility. Any fee imposed by the district under this subsection may not exceed the fee imposed on other groundwater producers in the district.

SECTION 3.1308. REGIONAL COOPERATION. (a) To provide for regional continuity, the district shall:

(1) participate in a regular annual coordination meeting with other groundwater districts in its designated management area and may hold coordination meetings at other times as needed;

(2) coordinate the collection of data with other groundwater districts in its designated management area in such a way as to achieve relative uniformity of data type and quality;

(3) coordinate efforts to monitor water quality with other groundwater districts in its designated management area, local governments, and state agencies;

(4) provide groundwater level data to other groundwater districts in its designated management area;

(5) investigate any groundwater and aquifer pollution with the intention of locating its source;

(6) notify other groundwater districts in its designated management area and all appropriate agencies of any detected groundwater pollution;

(7) annually provide to other groundwater districts in its designated management area an inventory of water wells and an estimate of groundwater production within the district; and

(8) include other groundwater districts in its designated management area on the mailing lists for district newsletters, seminars, public education events, news articles, and field days.

(b) The district shall prepare a comprehensive management plan as required by Section 36.1071, Water Code, covering that district's respective territory. On completion and certification of the plan as required by Section 36.1072, Water Code, the district shall forward a copy of the new or revised management plan to the other districts in its designated management area. The district shall consider the management plans individually and shall compare them to other management plans in the designated management area.

(1) The district shall, by resolution, call for joint planning with the other districts in the designated management area to review and coordinate the

management plans and accomplishments for the designated management area. In reviewing and coordinating the management plans, the boards shall consider:

- (A) the goals of each management plan and its impact on planning throughout the management area;
- (B) the groundwater management standards of each district describing the desired condition of the groundwater source over time as indicated by indices of quantity of water in the source, quality of water produced from the source, springflows, or subsidence of the land surface;
- (C) the groundwater withdrawal rates adopted by each district and the effectiveness of those rates in achieving the groundwater management standard of the district;
- (D) the effectiveness of the measures established by each management plan for conserving and protecting groundwater and preventing waste, and the effectiveness of these measures in the management area generally; and
- (E) any other matters that the boards consider relevant to the protection and conservation of groundwater and the prevention of waste in the management area.

(2) In the management plan the district may establish and coordinate with the other districts within the designated management area an annual total groundwater withdrawal limit and equitable allocation as determined from an evaluation of the overall scientific data of the groundwater resources in the region, including the Texas Water Development Board's groundwater availability model. The determination of sustainable groundwater withdrawal shall be reviewed at least every five years.

(3) Each district participating in the joint planning process initiated under this subsection shall ensure that the groundwater management standards adopted

by the district are adequate to protect the groundwater within the area of each district and are not incompatible with the groundwater management standards adopted by the other districts in the management area.

(4) If a joint meeting of the boards of directors is called, the meeting must be held in accordance with Chapter 551, Government Code. Notice of the meeting shall be given in accordance with the requirements for notice of district board of directors meetings under that chapter. In addition, notice of the meeting shall be published not later than the 30th day before the date of the scheduled meeting in a newspaper with general circulation in each county in the management area.

(5) A district in the management area may file with good cause a petition with the Texas Natural Resource Conservation Commission requesting an inquiry if the petitioner district adopted a resolution calling for joint planning and the other district or districts refused to join in the planning process or the process failed to result in adequate planning, and the petition provides evidence that:

(A) another district in the management area has failed to adopt rules;

(B) the groundwater in the management area is not adequately protected by the rules adopted by another district; or

(C) the groundwater in the management area is not adequately protected due to the failure of another district to enforce substantial compliance with its rules.

(6) The district may contract to jointly conduct studies or research, or to construct projects, under terms and conditions that the districts consider beneficial with districts located within the same management area or in adjacent management areas. These joint efforts may include studies of groundwater availability and quality, aquifer modeling, and



the interaction of groundwater and surface water; educational programs; the purchase and sharing of equipment; and the implementation of projects to make groundwater available, including aquifer recharge, brush control, weather modification, desalination, regionalization, and treatment or conveyance facilities. The districts may contract under their existing authorizations including those of Chapter 791, Government Code, if their contracting authority is not limited by Sections 791.011(c)(2) and (d)(3) and Section 791.014, Government Code.

(c) The district shall determine biennially, using the overall available scientific data of groundwater resources in the Central Carrizo-Wilcox area, whether pumping within the district or an adjacent district is unreasonably affecting groundwater wells. The district, in agreement with other districts within the designated management area, may adopt mitigation measures in response to such unreasonable adverse effects only if the measures are based on a scientific determination made.

(d) The district may assist in the mediation between landowners regarding the mitigation of the loss of existing groundwater supply of exempt domestic and livestock users due to the groundwater pumping of others in adjoining districts.

SECTION 3.1309. BOARD OF DIRECTORS. (a) The district is governed by a board of eight directors.

(b) Initial directors serve until permanent directors are appointed under Section 3.1310 of this part and qualified as required by Subsection (d) of this section.

(c) Permanent directors serve four-year staggered terms.

(d) Each director must qualify to serve as a director in the manner provided by Section 36.055, Water Code.

(e) A director serves until the director's successor has qualified.

(f) A director may serve consecutive terms.

(g) If there is a vacancy on the board, the governing body of the entity that appointed the director who vacated the office shall appoint a director to serve the remainder of the term.

(h) Directors are not entitled to receive compensation for serving as a director but may be reimbursed for actual, reasonable expenses incurred in the discharge of official duties.

(i) A majority vote of a quorum is required for board action. If there is a tie vote, the proposed action fails.

SECTION 3.1310. APPOINTMENT OF DIRECTORS. (a) The Robertson County Commissioners Court shall appoint four directors, of whom:

- (1) one must represent municipal interests in the county;
- (2) one must represent agricultural interests in the county;
- (3) one must represent rural water suppliers' interests in the county; and

- (4) one must represent industrial interests in the county.

(b) The Brazos County Commissioners Court shall appoint two directors, of whom:

- (1) one must represent rural water suppliers' interests in the county; and

- (2) one must represent agricultural interests in the county.

(c) The governing body of the City of Bryan, with the approval of the Brazos County Commissioners Court, shall appoint one director.

(d) The governing body of the City of College Station, with the approval of the Brazos County Commissioners Court, shall appoint one director.

(e) Each of the governing bodies authorized by this section to make an appointment shall appoint the appropriate number of initial directors as soon as practicable following the effective date of this Act, but not later than the 45th day after the effective date of this Act.

(f) The four initial directors from Robertson County shall draw lots to determine their terms. Two initial directors from Robertson County and the two initial directors from Brazos County serve terms that expire on January 1 of the second year following the confirmation of the district at an election held under Section 3.1312 of this part. The remaining four initial directors serve terms that expire on January 1 of the fourth year following the confirmation of the district. On January 1 of the second year following confirmation of the district and every two years after that date, the appropriate governing body shall appoint the appropriate number of permanent directors.

SECTION 3.1311. ORGANIZATIONAL MEETING. As soon as practicable after all the initial directors have been appointed and have qualified as provided in this part, a majority of the directors shall convene the organizational meeting of the district at a location within the district agreeable to a majority of the directors. If no location can be agreed on, the organizational meeting of the directors shall be at the Robertson County Courthouse.

SECTION 3.1312. CONFIRMATION ELECTION. (a) The initial board of directors shall call and hold an election on the same date in each county within the district to confirm the creation of the district.

(b) Except as provided by this section, a confirmation election must be conducted as provided by Sections 36.017, 36.018, and 36.019, Water Code, and Section 41.001, Election Code.

(c) Confirmation of the district requires a vote in favor of confirmation by a majority of the qualified voters voting in the election.

(d) The district is dissolved and this part expires on August 31, 2003, unless the voters confirm the creation of the district before that date.

PART 14. POST OAK SAVANNAH GROUNDWATER CONSERVATION DISTRICT

SECTION 3.1401. CREATION. (a) A groundwater conservation district, to be known as the Post Oak Savannah Groundwater Conservation District, is created in Milam and Burleson counties, subject to approval at a confirmation election under Section 3.1412 of this part. The district is a governmental agency and a body politic and corporate.

(b) The district is created under and is essential to accomplish the purposes of Section 59, Article XVI, Texas Constitution.

SECTION 3.1402. DEFINITION. In this part, "district" means the Post Oak Savannah Groundwater Conservation District.

SECTION 3.1403. BOUNDARIES. The boundaries of the district are coextensive with the boundaries of Milam and Burleson counties.

SECTION 3.1404. FINDING OF BENEFIT. All of the land and other property included within the boundaries of the district will be benefited by the works and projects that are to be accomplished by the district under powers conferred by Section 59, Article XVI, Texas Constitution. The district is created to serve a public use and benefit.

SECTION 3.1405. GENERAL POWERS. (a) Except as otherwise provided by this part, the district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of this state, including Chapter 36, Water Code, applicable to groundwater conservation districts created under Section 59, Article XVI, Texas Constitution. This part prevails over any provision of general law that is in conflict or inconsistent with this part, including any provision of Chapter 36, Water Code.

(b) The district does not have the authority granted by the following provisions of Chapter 36, Water Code:

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(1) Section 36.105, relating to eminent domain; and

(2) Sections 36.020 and 36.201-36.204, relating to taxes.

SECTION 3.1406. FEES. (a) The board of directors of the district by rule may impose reasonable fees on each well for which a permit is issued by the district and which is not exempt from regulation by the district. A fee may be based on the size of column pipe used by the well or on the actual, authorized, or anticipated amount of water to be withdrawn from the well.

(b) Fees may not exceed:

(1) one dollar per acre-foot for water used for irrigating agricultural crops; or

(2) 17 cents per thousand gallons for water used for any other purpose.

(c) In addition to the fee authorized under Subsection (b) of this section, the district may impose a reasonable fee or surcharge for an export fee using one of the following methods:

(1) a fee negotiated between the district and the transporter;  
or

(2) a combined production and export fee not to exceed 17 cents per thousand gallons for water used.

SECTION 3.1407. GROUNDWATER WELLS UNDER JURISDICTION OF RAILROAD COMMISSION. (a) Groundwater wells drilled or operated within the district under permits issued by the Railroad Commission of Texas are under the exclusive jurisdiction of the railroad commission and are exempt from regulation by the district.

(b) Groundwater produced in an amount authorized by a Railroad Commission of Texas permit may be used within or exported from the district without obtaining a permit from the district.

(c) To the extent groundwater production exceeds Railroad Commission of Texas authorization, the holder of the railroad commission permit must apply to the district for appropriate permits for the excess production and is subject to the applicable regulatory fees.

(d) Groundwater produced from wells under the jurisdiction of the Railroad Commission of Texas is generally exempt from water district fees. However, the district may impose either a pumping fee or an export fee on groundwater produced from an otherwise exempt mine well that is used for municipal purposes or by a public utility. Any fee imposed by the district under this subsection may not exceed the fee imposed on other groundwater producers in the district.

SECTION 3.1408. REGIONAL COOPERATION. (a) To provide for regional continuity, the district shall:

(1) participate in a regular annual coordination meeting with other groundwater districts in its designated management area and may hold coordination meetings at other times as needed;

(2) coordinate the collection of data with other groundwater districts in its designated management area in such a way as to achieve relative uniformity of data type and quality;

(3) coordinate efforts to monitor water quality with other groundwater districts in its designated management area, local governments, and state agencies;

(4) provide groundwater level data to other groundwater districts in its designated management area;

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(5) investigate any groundwater and aquifer pollution with the intention of locating its source;

(6) notify other groundwater districts in its designated management area and all appropriate agencies of any detected groundwater pollution;

(7) annually provide to other groundwater districts in its designated management area an inventory of water wells and an estimate of groundwater production within the district; and

(8) include other groundwater districts in its designated management area on the mailing lists for district newsletters, seminars, public education events, news articles, and field days.

(b) The district shall prepare a comprehensive management plan as required by Section 36.1071, Water Code, covering that district's respective territory. On completion and certification of the plan as required by Section 36.1072, Water Code, the district shall forward a copy of the new or revised management plan to the other districts in its designated management area. The district shall consider the management plans individually and shall compare them to other management plans in the designated management area.

(1) The district shall, by resolution, call for joint planning with the other districts in the designated management area to review and coordinate the management plans and accomplishments for the designated management area. In reviewing and coordinating the management plans, the boards shall consider:

(A) the goals of each management plan and its impact on planning throughout the management area;

(B) the groundwater management standards of each district describing the desired condition of the groundwater source over time as indicated by

indices of quantity of water in the source, quality of water produced from the source, springflows, or subsidence of the land surface;

(C) the groundwater withdrawal rates adopted by each district and the effectiveness of those rates in achieving the groundwater management standard of the district;

(D) the effectiveness of the measures established by each management plan for conserving and protecting groundwater and preventing waste, and the effectiveness of these measures in the management area generally; and

(E) any other matters that the boards consider relevant to the protection and conservation of groundwater and the prevention of waste in the management area.

(2) In the management plan the district may establish and coordinate with the other districts within the designated management area an annual total groundwater withdrawal limit and equitable allocation as determined from an evaluation of the overall scientific data of the groundwater resources in the region, including the Texas Water Development Board's groundwater availability model. The determination of sustainable groundwater withdrawal shall be reviewed at least every five years.

(3) Each district participating in the joint planning process initiated under this subsection shall ensure that the groundwater management standards adopted by the district are adequate to protect the groundwater within the area of each district and are not incompatible with the groundwater management standards adopted by the other districts in the management area.

(4) If a joint meeting of the boards of directors is called, the meeting must be held in accordance with Chapter 551, Government Code. Notice of the meeting shall be given in accordance with the requirements for notice of district board of directors



meetings under that chapter. In addition, notice of the meeting shall be published not later than the 30th day before the date of the scheduled meeting in a newspaper with general circulation in each county in the management area.

(5) A district in the management area may file with good cause a petition with the Texas Natural Resource Conservation Commission requesting an inquiry if the petitioner district adopted a resolution calling for joint planning and the other district or districts refused to join in the planning process or the process failed to result in adequate planning, and the petition provides evidence that:

(A) another district in the management area has failed to adopt rules;

(B) the groundwater in the management area is not adequately protected by the rules adopted by another district; or

(C) the groundwater in the management area is not adequately protected due to the failure of another district to enforce substantial compliance with its rules.

(6) The district may contract to jointly conduct studies or research, or to construct projects, under terms and conditions that the districts consider beneficial with districts located within the same management area or in adjacent management areas. These joint efforts may include studies of groundwater availability and quality, aquifer modeling, and the interaction of groundwater and surface water; educational programs; the purchase and sharing of equipment; and the implementation of projects to make groundwater available, including aquifer recharge, brush control, weather modification, desalination, regionalization, and treatment or conveyance facilities. The districts may contract under their existing authorizations including those of Chapter 791, Government Code, if their contracting authority is not limited by Sections 791.011(c)(2) and (d)(3) and Section 791.014, Government Code.

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(c) The district shall determine biennially, using the overall available scientific data of groundwater resources in the Central Carrizo-Wilcox area, whether pumping within the district or an adjacent district is unreasonably affecting groundwater wells. The district, in agreement with other districts within the designated management area, may adopt mitigation measures in response to such unreasonable adverse effects only if the measures are based on a scientific determination made.

(d) The district may assist in the mediation between landowners regarding the mitigation of the loss of existing groundwater supply of exempt domestic and livestock users due to the groundwater pumping of others in adjoining districts.

SECTION 3.1409. BOARD OF DIRECTORS. (a) The district is governed by a board of 10 directors.

(b) Initial directors serve until permanent directors are appointed under Section 3.1410 of this part and qualified as required by Subsection (d) of this section.

(c) Permanent directors serve four-year staggered terms.

(d) Each director must qualify to serve as a director in the manner provided by Section 36.055, Water Code.

(e) A director serves until the director's successor has qualified.

(f) A director may serve consecutive terms.

(g) If there is a vacancy on the board, the governing body of the entity that appointed the director who vacated the office shall appoint a director to serve the remainder of the term.

(h) Directors are not entitled to receive compensation for serving as a director but may be reimbursed for actual, reasonable expenses incurred in the discharge of official duties.

(i) A quorum exists when at least two-thirds of the board members are present. A majority vote of a quorum is required for board action. If there is a tie vote, the proposed action fails.

SECTION 3.1410. APPOINTMENT OF DIRECTORS. (a) The Milam County Commissioners Court shall appoint five directors, of whom:

(1) one must represent municipal interests in the county;  
(2) one must represent agricultural interests in the county;  
(3) one must represent rural water suppliers' interests in the county;

(4) one must represent industrial interests in the county; and  
(5) one must represent the interests of the county at large.

(b) The Burleson County Commissioners Court shall appoint five directors, of whom:

(1) one must represent municipal interests in the county;  
(2) one must represent agricultural interests in the county;  
(3) one must represent rural water suppliers' interests in the county;

(4) one must represent industrial interests in the county; and  
(5) one must represent the interests of the county at large.

(c) Each of the governing bodies authorized by this section to make an appointment shall appoint the appropriate number of initial directors as soon as practicable following the effective date of this Act, but not later than the 45th day after the effective date of this Act.

(d) The initial directors shall draw lots to determine their terms. Two initial directors from Milam County and two initial directors from Burleson County serve terms

that expire on January 1 of the second year following the confirmation of the district at an election held under Section 3.1412 of this part. The remaining six initial directors serve terms that expire on January 1 of the fourth year following the confirmation of the district. On January 1 of the second year following confirmation of the district and every two years after that date, the appropriate commissioners court shall appoint the appropriate number of permanent directors.

SECTION 3.1411. ORGANIZATIONAL MEETING. As soon as practicable after all the initial directors have been appointed and have qualified as provided in this part, a majority of the directors shall convene the organizational meeting of the district at a location within the district agreeable to a majority of the directors. If no location can be agreed on, the organizational meeting of the directors shall be at the Milam County Courthouse.

SECTION 3.1412. CONFIRMATION ELECTION. (a) The initial board of directors shall call and hold an election on the same date in each county within the district to confirm the creation of the district.

(b) Except as provided by this section, a confirmation election must be conducted as provided by Sections 36.017, 36.018, and 36.019, Water Code, and Section 41.001, Election Code.

(c) If the majority of qualified voters in a county who vote in the election vote to confirm the creation of the district, that county is included in the district.

(d) The district is dissolved and this part expires on August 31, 2003, unless the voters confirm the creation of the district before that date.

#### PART 15. MID-EAST TEXAS GROUNDWATER CONSERVATION DISTRICT

SECTION 3.1501. CREATION. (a) A groundwater conservation district, to be known as the Mid-East Texas Groundwater Conservation District, is created in Leon, Madison, and Freestone counties, subject to approval at a confirmation election under

Section 3.1512 of this part. The district is a governmental agency and a body politic and corporate.

(b) The district is created under and is essential to accomplish the purposes of Section 59, Article XVI, Texas Constitution.

SECTION 3.1502. DEFINITION. In this part, "district" means the Mid-East Texas Groundwater Conservation District.

SECTION 3.1503. BOUNDARIES. The boundaries of the district are coextensive with the boundaries of Leon, Madison, and Freestone counties.

SECTION 3.1504. FINDING OF BENEFIT. All of the land and other property included within the boundaries of the district will be benefited by the works and projects that are to be accomplished by the district under powers conferred by Section 59, Article XVI, Texas Constitution. The district is created to serve a public use and benefit.

SECTION 3.1505. GENERAL POWERS. (a) Except as otherwise provided by this part, the district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of this state, including Chapter 36, Water Code, applicable to groundwater conservation districts created under Section 59, Article XVI, Texas Constitution. This part prevails over any provision of general law that is in conflict or inconsistent with this part, including any provision of Chapter 36, Water Code.

(b) The district does not have the authority granted by the following provisions of Chapter 36, Water Code:

- (1) Section 36.105, relating to eminent domain; and
- (2) Sections 36.020 and 36.201-36.204, relating to taxes.

SECTION 3.1506. FEES. (a) The board of directors of the district by rule may impose reasonable fees on each well for which a permit is issued by the district and which is not exempt from regulation by the district. A fee may be based on the size of column

pipe used by the well or on the actual, authorized, or anticipated amount of water to be withdrawn from the well.

(b) Fees may not exceed:

(1) one dollar per acre-foot for water used for irrigating agricultural crops; or

(2) 17 cents per thousand gallons for water used for any other purpose.

(c) In addition to the fee authorized under Subsection (b) of this section, the district may impose a reasonable fee or surcharge for an export fee using one of the following methods:

(1) a fee negotiated between the district and the transporter;

or

(2) a combined production and export fee not to exceed 17 cents per thousand gallons for water used.

SECTION 3.1507. GROUNDWATER WELLS UNDER JURISDICTION OF RAILROAD COMMISSION. (a) Groundwater wells drilled or operated within the district under permits issued by the Railroad Commission of Texas are under the exclusive jurisdiction of the railroad commission and are exempt from regulation by the district.

(b) Groundwater produced in an amount authorized by a Railroad Commission of Texas permit may be used within or exported from the district without obtaining a permit from the district.

(c) To the extent groundwater production exceeds Railroad Commission of Texas authorization, the holder of the railroad commission permit must apply to the district for appropriate permits for the excess production and is subject to the applicable regulatory fees.

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(d) Groundwater produced from wells under the jurisdiction of the Railroad Commission of Texas is generally exempt from water district fees. However, the district may impose either a pumping fee or an export fee on groundwater produced from an otherwise exempt mine well that is used for municipal purposes or by a public utility. Any fee imposed by the district under this subsection may not exceed the fee imposed on other groundwater producers in the district.

SECTION 3.1508. REGIONAL COOPERATION. (a) To provide for regional continuity, the district shall:

(1) participate in a regular annual coordination meeting with other groundwater districts in its designated management area and may hold coordination meetings at other times as needed;

(2) coordinate the collection of data with other groundwater districts in its designated management area in such a way as to achieve relative uniformity of data type and quality;

(3) coordinate efforts to monitor water quality with other groundwater districts in its designated management area, local governments, and state agencies;

(4) provide groundwater level data to other groundwater districts in its designated management area;

(5) investigate any groundwater and aquifer pollution with the intention of locating its source;

(6) notify other groundwater districts in its designated management area and all appropriate agencies of any detected groundwater pollution;

(7) annually provide to other groundwater districts in its designated management area an inventory of water wells and an estimate of groundwater production within the district; and

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(8) include other groundwater districts in its designated management area on the mailing lists for district newsletters, seminars, public education events, news articles, and field days.

(b) The district shall prepare a comprehensive management plan as required by Section 36.1071, Water Code, covering that district's respective territory. On completion and certification of the plan as required by Section 36.1072, Water Code, the district shall forward a copy of the new or revised management plan to the other districts in its designated management area. The district shall consider the management plans individually and shall compare them to other management plans in the designated management area.

(1) The district shall, by resolution, call for joint planning with the other districts in the designated management area to review and coordinate the management plans and accomplishments for the designated management area. In reviewing and coordinating the management plans, the boards shall consider:

(A) the goals of each management plan and its impact on planning throughout the management area;

(B) the groundwater management standards of each district describing the desired condition of the groundwater source over time as indicated by indices of quantity of water in the source, quality of water produced from the source, springflows, or subsidence of the land surface;

(C) the groundwater withdrawal rates adopted by each district and the effectiveness of those rates in achieving the groundwater management standard of the district;

(D) the effectiveness of the measures established by each management plan for conserving and protecting groundwater and preventing waste, and the effectiveness of these measures in the management area generally; and

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(E) any other matters that the boards consider relevant to the protection and conservation of groundwater and the prevention of waste in the management area.

(2) In the management plan the district may establish and coordinate with the other districts within the designated management area an annual total groundwater withdrawal limit and equitable allocation as determined from an evaluation of the overall scientific data of the groundwater resources in the region, including the Texas Water Development Board's groundwater availability model. The determination of sustainable groundwater withdrawal shall be reviewed at least every five years.

(3) Each district participating in the joint planning process initiated under this subsection shall ensure that the groundwater management standards adopted by the district are adequate to protect the groundwater within the area of each district and are not incompatible with the groundwater management standards adopted by the other districts in the management area.

(4) If a joint meeting of the boards of directors is called, the meeting must be held in accordance with Chapter 551, Government Code. Notice of the meeting shall be given in accordance with the requirements for notice of district board of directors meetings under that chapter. In addition, notice of the meeting shall be published not later than the 30th day before the date of the scheduled meeting in a newspaper with general circulation in each county in the management area.

(5) A district in the management area may file with good cause a petition with the Texas Natural Resource Conservation Commission requesting an inquiry if the petitioner district adopted a resolution calling for joint planning and the other district or districts refused to join in the planning process or the process failed to result in adequate planning, and the petition provides evidence that:

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(A) another district in the management area has failed to adopt rules;

(B) the groundwater in the management area is not adequately protected by the rules adopted by another district; or

(C) the groundwater in the management area is not adequately protected due to the failure of another district to enforce substantial compliance with its rules.

(6) The district may contract to jointly conduct studies or research, or to construct projects, under terms and conditions that the districts consider beneficial with districts located within the same management area or in adjacent management areas. These joint efforts may include studies of groundwater availability and quality, aquifer modeling, and the interaction of groundwater and surface water; educational programs; the purchase and sharing of equipment; and the implementation of projects to make groundwater available, including aquifer recharge, brush control, weather modification, desalination, regionalization, and treatment or conveyance facilities. The districts may contract under their existing authorizations including those of Chapter 791, Government Code, if their contracting authority is not limited by Sections 791.011(c)(2) and (d)(3) and Section 791.014, Government Code.

(c) The district shall determine biennially, using the overall available scientific data of groundwater resources in the Central Carrizo-Wilcox area, whether pumping within the district or an adjacent district is unreasonably affecting groundwater wells. The district, in agreement with other districts within the designated management area, may adopt mitigation measures in response to such unreasonable adverse effects only if the measures are based on a scientific determination made.

(d) The district may assist in the mediation between landowners regarding the mitigation of the loss of existing groundwater supply of exempt domestic and livestock users due to the groundwater pumping of others in adjoining districts.

SECTION 3.1509. BOARD OF DIRECTORS. (a) The district is governed by a board of nine directors.

(b) Initial directors serve until permanent directors are appointed under Section 3.1510 of this part and qualified as required by Subsection (d) of this section.

(c) Permanent directors serve four-year staggered terms.

(d) Each director must qualify to serve as a director in the manner provided by Section 36.055, Water Code.

(e) A director serves until the director's successor has qualified.

(f) A director may serve consecutive terms.

(g) If there is a vacancy on the board, the governing body of the entity that appointed the director who vacated the office shall appoint a director to serve the remainder of the term.

(h) Directors are not entitled to receive compensation for serving as a director but may be reimbursed for actual, reasonable expenses incurred in the discharge of official duties.

(i) A majority vote of a quorum is required for board action. If there is a tie vote, the proposed action fails.

SECTION 3.1510. APPOINTMENT OF DIRECTORS. (a) The Leon County Commissioners Court shall appoint three directors, of whom:

(1) one must represent the interests of rural water suppliers or municipalities in the county, or both;

(2) one must represent agricultural interests in the county;

and

(3) one must represent industrial interests in the county.

(b) The Madison County Commissioners Court shall appoint three directors, of whom:

(1) one must represent the interests of rural water suppliers or municipalities in the county, or both;

(2) one must represent agricultural interests in the county;

and

(3) one must represent industrial interests in the county.

(c) The Freestone County Commissioners Court shall appoint three directors, of whom:

(1) one must represent the interests of rural water suppliers or municipalities in the county, or both;

(2) one must represent agricultural interests in the county;

and

(3) one must represent industrial interests in the county.

(d) Each of the governing bodies authorized by this section to make an appointment shall appoint the appropriate number of initial directors as soon as practicable following the effective date of this Act, but not later than the 45th day after the effective date of this Act.

(e) The initial directors shall draw lots to determine their terms. A simple majority of the initial directors, if an odd number of initial directors are appointed, or half the initial directors, if an even number of initial directors are appointed, serve terms that expire on January 1 of the fourth year following the confirmation of the district at an election held

under Section 3.1512 of this part. The remaining initial directors serve terms that expire on January 1 of the second year following the confirmation of the district. On January 1 of the second year following confirmation of the district and every two years after that date, the appropriate commissioners courts shall appoint the appropriate number of permanent directors.

SECTION 3.1511. ORGANIZATIONAL MEETING. As soon as practicable after all the initial directors have been appointed and have qualified as provided by this part, a majority of the directors shall convene the organizational meeting of the district at a location within the district agreeable to a majority of the directors. If no location can be agreed on, the organizational meeting of the directors shall be at the Leon County Courthouse.

SECTION 3.1512. CONFIRMATION ELECTION. (a) The initial board of directors shall call and hold an election on the same date in each county within the district to confirm the creation of the district.

(b) Except as provided by this section, a confirmation election must be conducted as provided by Sections 36.017, 36.018, and 36.019, Water Code, and Section 41.001, Election Code.

(c) If the majority of qualified voters in a county who vote in the election vote to confirm the creation of the district, that county is included in the district. If the majority of qualified voters in a county who vote in the election vote not to confirm the creation of the district, that county is excluded from the district.

(d) The district is dissolved and this part expires on August 31, 2003, unless the voters confirm the creation of the district before that date.

#### PART 16. NORTHEAST TRAVIS COUNTY UTILITY DISTRICT

SECTION 3.1601. CREATION. (a) A conservation and reclamation district, to be known as the Northeast Travis County Utility District, is created in Travis County,

subject to approval at a confirmation election under Section 3.1611 of this part. The district is a governmental agency and a body politic and corporate.

(b) The district is created under and is essential to accomplish the purposes of Section 59, Article XVI, Texas Constitution.

SECTION 3.1602. DEFINITION. In this part, "district" means the Northeast Travis County Utility District.

SECTION 3.1603. BOUNDARIES. The district includes the territory contained within the following areas:

Tract No. 1, approximately 146.50 acres of land out of the E. Kirkland Survey No. 7, in Travis County, Texas, being all of that certain tract conveyed to Kathleen Marie England and Jay Lawrence Johnson by Deeds recorded in Volume 11403, Page 374, Volume 11618, Page 104, Volume 11861, Page 120 and Volume 12118, Page 195, Real Property Records of Travis County, Texas;

Tract No. 2, approximately 70.31 acres of land out of the E. Kirkland Survey No. 7 in Travis County, Texas, being all of that certain tract of land conveyed to Charles E. Baker, et ux, by Deed recorded in Volume 7188, Page 1756, Deed Records of Travis County, Texas;

Tract No. 3, approximately 104.34 acres of land out of the G. M. Martin Survey No. 9, Abstract 529, Travis County, Texas, being all of that certain tract called 103.984 acres conveyed to Bernice Becker Zreet, Freida Becker Woodland, Edline Becker McMains, Adolf Becker, Jr., Wilbert Becker and Edwin F. Zreet and Bernice Zreet, Trustees of The Edwin F. and Bernice Zreet Trust dated August 27, 1997, by Deeds recorded in Volume 10215, Page 610, Volume 10537, Page 939, and Volume 13171, Page 102, Real Property Records of Travis County, Texas, and all of that certain tract called 0.356 of one acre conveyed by Muniment of Title recorded in Document No. 71552 of the Travis County Probate Records;

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Tract No. 4, approximately 103.266 acres of land out of the George M. Martin Survey No. 9, Abstract 529, Travis County, Texas, being all of that certain tract conveyed to Kermit Hees and wife, Lydia Hees by Partition Deed recorded in Volume 11552, Page 475, Real Property Records of Travis County, Texas, said 103.266 acre tract being the remainder of that tract called 106-1/2 acres conveyed to W. A. Randig by Deed recorded in Volume 498, Page 219, SAVE AND EXCEPT, that portion deeded to Travis County, Texas for highway purposes by Deed recorded in Volume 2268, Page 195, Deed Records of Travis County, Texas;

Tract No. 5, approximately 177.301 acres of land out of the G. M. Martin Survey in Travis County, Texas, being all of that certain tract of land conveyed to Karolyn P. Graf and Robert L. Pfluger, Trustees of the Lawrence and Willie Mae Pfluger Family Trust by Deeds recorded in Volume 10431, Page 422, Volume 10555, Page 214, and Volume 11091, Page 691, Real Property Records of Travis County, Texas;

Tract No. 6, approximately 107.4 acres of land out of the George M. Martin Survey, Abstract No. 9, and being all of that certain tract of land conveyed to Robert L. Pfluger and Karolyn P. Graf by Deed recorded in Volume 12947, Page 560 and to Robert L. Pfluger, Trustee for Miranda Kimbro and Weston N. Kimbro and Wayne Pfluger, Trustee for Josph L. Pfluger and Lydia Pfluger, by Deed recorded in Volume 12947, Page 562, Real Property Records of Travis County, Texas;

Tract No. 7, approximately 9.198 acres of land out of the G. M. Martin Survey, Abstract No. 9, in Travis County, Texas, and being all of that certain tract of land conveyed to Peggy Pfluger and Robert L. Pfluger by Deed recorded in Volume 13049, Page 1353, Real Property Records of Travis County, Texas.

#### SECTION 3.1604. FINDINGS RELATIVE TO BOUNDARIES.

The legislature finds that the boundaries and field notes of the district form a closure. A mistake

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in the field notes or in copying the field notes in the legislative process does not affect the organization, existence, or validity of the district, the right of the district to impose taxes, or the legality or operation of the district or its governing body.

SECTION 3.1605. FINDING OF BENEFIT. All of the land and other property included within the boundaries of the district will be benefited by the works and projects that are to be accomplished by the district under powers conferred by Section 59, Article XVI, Texas Constitution. The district is created to serve a public use and benefit.

SECTION 3.1606. GENERAL POWERS. (a) The district has all of the rights, powers, privileges, authority, functions, and duties provided by the general law of this state, including Chapters 30, 49, and 54, Water Code, applicable to municipal utility districts created under Section 59, Article XVI, Texas Constitution.

(b) The rights, powers, privileges, authority, functions, and duties of the district are subject to the continuing right of supervision of the state to be exercised by and through the Texas Natural Resource Conservation Commission.

SECTION 3.1607. DIVISION OF DISTRICT. (a) The district may divide into two or more districts as provided by Sections 51.748-51.753, Water Code, and this section. The proposed district may divide into two or more proposed districts before the establishment of the district is confirmed at the confirmation election held under Section 3.1611 of this part.

(b) A district created by division under this section may divide into two or more districts after the establishment of the district is confirmed at a confirmation election. A proposed district created by division under this section may divide into two or more proposed districts before the establishment of the district is confirmed at a confirmation election.

(c) The district or any district resulting from a division of the district may exercise powers under Chapters 49 and 54, Water Code, to annex or exclude property after a



confirmation election. The temporary board of the proposed district or of any proposed district resulting from a division of the proposed district may, after a hearing, alter the proposed boundaries of the proposed district before the temporary board orders a confirmation election.

(d) The order creating a district by division under this section and Sections 51.748-51.753, Water Code, must give the district an appropriate name that does not conflict with the name of any other district. The provisions of Section 51.749(c), Water Code, relating to naming a district, do not apply.

SECTION 3.1608. ANNEXATION BY MUNICIPALITY. (a) The district is a water or sewer district as defined by Section 43.071, Local Government Code, for purposes of that section.

(b) On annexation of the district by a municipality, the district is dissolved and the municipality shall assume the powers, authority, functions, duties, and outstanding bonded indebtedness of the district.

(c) A municipality that annexes the district must provide full municipal services, as defined by Section 43.056(c), Local Government Code, in the district before the expiration of two and one-half years after the effective date of the annexation, unless certain services cannot reasonably be provided within that period and the municipality proposes a schedule for providing those services. If the municipality proposes a schedule to extend the period for providing certain services, the schedule must provide for the provision of full municipal services before the expiration of four and one-half years after the effective date of the annexation.

SECTION 3.1609. BOARD OF DIRECTORS. (a) The district is governed by a board of five directors.

(b) Temporary directors serve until initial directors are elected under Section 3.1611 of this part.

(c) Initial directors serve until permanent directors are elected under Section 3.1612 of this part.

(d) Permanent directors serve staggered four-year terms.

(e) Each director must qualify to serve as a director in the manner provided by Section 49.055, Water Code.

(f) A director serves until the director's successor has qualified.

SECTION 3.1610. TEMPORARY DIRECTORS. (a) The temporary board of directors consists of:

- (1) Chris Fields;
- (2) Nate Nickerson;
- (3) Seth Spiker;
- (4) John Pfluger; and
- (5) Steven Thomas.

(b) The temporary directors are not required to own land or reside in the district.

(c) The temporary directors shall take the oath of office and execute bonds to qualify for holding their offices as soon as possible after the effective date of this Act.

(d) If a temporary director fails to qualify for office, the temporary directors who have qualified shall appoint a person to fill the vacancy. If at any time there are fewer than three qualified temporary directors, the Texas Natural Resource Conservation Commission shall appoint the necessary number of persons to fill all vacancies on the board.

SECTION 3.1611. CONFIRMATION AND INITIAL DIRECTORS ELECTION. (a) The temporary board of directors shall call and hold an election to confirm establishment of the district and to elect five initial directors as provided by Section 49.102,

Water Code. The board may submit to the voters propositions to authorize the issuance of bonds, a maintenance tax, and a tax to make payments under a contract.

(b) Section 41.001(a), Election Code, does not apply to an election held under this section.

SECTION 3.1612. ELECTION OF DIRECTORS. (a) On the first Saturday in May of the first even-numbered year after the year in which the district is authorized to be created at a confirmation election, a general election shall be held in the district for the election of three directors to serve four-year terms and two directors to serve two-year terms.

(b) On the first Saturday in May of each subsequent second year following the election, the appropriate number of directors shall be elected.

SECTION 3.1613. FINDINGS RELATING TO PROCEDURAL REQUIREMENTS. (a) The proper and legal notice of the intention to introduce this Act, setting forth the general substance of this Act, has been published as provided by law, and the notice and a copy of this Act have been furnished to all persons, agencies, officials, or entities to which they are required to be furnished by the constitution and other laws of this state, including the governor, who has submitted the notice and Act to the Texas Natural Resource Conservation Commission.

(b) The Texas Natural Resource Conservation Commission has filed its recommendations relating to this Act with the governor, lieutenant governor, and speaker of the house of representatives within the required time.

(c) All requirements of the constitution and laws of this state and the rules and procedures of the legislature with respect to the notice, introduction, and passage of this Act are fulfilled and accomplished.

SECTION 3.1614. EFFECTIVE DATE OF THIS PART. This part takes effect immediately if this Act receives a vote of two-thirds of all the members elected to

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each house, as provided by Section 39, Article III, Texas Constitution. If this Act does not receive the vote necessary for immediate effect, this part takes effect September 1, 2001.

ARTICLE 4. WATER INFRASTRUCTURE FINANCING

SECTION 4.01. Chapter 15, Water Code, is amended by adding Subchapter O to read as follows:

SUBCHAPTER O. WATER INFRASTRUCTURE FUND

Sec. 15.901. DEFINITIONS. In this subchapter:

(1) "Eligible political subdivision" means:

(A) a municipality;

(B) a county;

(C) a river authority or special law district that is

listed in Section 9.010(b);

(D) a water improvement district;

(E) an irrigation district;

(F) a water control and improvement district; and

(G) a groundwater district with a groundwater

management plan certified by the board under Section 36.1072.

(2) "Fund" means the water infrastructure fund.

(3) "Metropolitan statistical area" means an area so designated by the United States Office of Management and Budget.

(4) "Political subdivision bonds" means bonds or other obligations issued by a political subdivision to fund a project and purchased by the board from money in the fund.

(5) "Project" means any undertaking or work, including planning and design activities and work to obtain regulatory authority, to conserve, mitigate,

convey, and develop water resources of the state, including any undertaking or work done outside the state that the board determines will result in water being available for use in or for the benefit of the state.

Sec. 15.902. FINDINGS. The legislature finds that:

(1) the creation of the fund and the administration of the fund by the board will encourage the conservation and development of the water resources of the state;

(2) the use of the fund is in furtherance of the public purpose of conserving and developing the water resources of the state; and

(3) the use of the fund for the purposes provided by this subchapter is for the benefit of both the state and the political subdivisions to which the board makes financial assistance available in accordance with this subchapter and constitutes a program under, and is in furtherance of the public purposes set forth in, Section 52-a, Article III, Texas Constitution.

Sec. 15.903. WATER INFRASTRUCTURE FUND. (a) The water infrastructure fund is a special account in the general revenue fund to be administered by the board under this subchapter and rules adopted by the board under this subchapter. Money in the fund may be used to pay for the implementation of water projects recommended through the state and regional water planning processes under Sections 16.051 and 16.053.

(b) The fund consists of:

(1) appropriations from the legislature;

(2) any other fees or sources of revenue that the legislature may dedicate for deposit to the fund;

(3) repayments of loans made from the fund;

(4) interest earned on money credited to the fund;

(5) depository interest allocable to the fund in the general revenue fund;

(6) money from gifts, grants, or donations to the fund;

(7) money from revenue bonds or other sources designated by the board; and

(8) proceeds from the sale of political subdivision bonds or obligations held in the fund and not otherwise pledged to the discharge, repayment, or redemption of revenue bonds or other bonds, the proceeds of which were placed in the fund.

Sec. 15.904. USE OF WATER INFRASTRUCTURE FUND.

(a) The board may use the fund:

(1) to make loans to political subdivisions at or below market interest rates for projects;

(2) to make grants, low-interest loans, or zero interest loans to political subdivisions for projects to serve areas outside metropolitan statistical areas in order to ensure that the projects are implemented, or for projects to serve economically distressed areas;

(3) to make loans at or below market interest rates for planning and design costs, permitting costs, and other costs associated with state or federal regulatory activities with respect to a project;

(4) as a source of revenue or security for the payment of principal and interest on bonds issued by the board if the proceeds of the sale of the bonds will be deposited in the fund; and

(5) to pay the necessary and reasonable expenses of the board in administering the fund.

(b) Funding under Subsection (a)(2) or under Subsection (a)(3) may not exceed 10 percent of the amount of financial assistance budgeted by the board to be made available from the fund in a fiscal year.

(c) Principal and interest payments on loans made under Subsection (a)(3) may be deferred for a maximum of 10 years or until construction of the project is completed, whichever is earlier.

Sec. 15.905. APPROVAL OF APPLICATIONS. (a) On review and recommendation by the executive administrator, the board by resolution may approve an application if the board finds that:

(1) the application and the assistance applied for meet the requirements of this subchapter and board rules;

(2) the revenue or taxes, or both the revenue and taxes, pledged by the applicant will be sufficient to meet all the obligations assumed by the political subdivision; and

(3) the project will meet water needs in a manner consistent with the state and regional water plans as required by Section 16.053(j), unless otherwise specified by an act of the legislature.

(b) For an application under this subchapter, a program of water conservation through a more effective use of water shall be required in the same manner as for approval of an application for financial assistance under Section 15.106.

(c) The board may deliver funds for the part of a loan or grant for a project relating to surface water development, other than for planning and design costs, permitting costs, and other costs associated with federal and state regulatory activities with respect to a project, only if the executive administrator makes a written finding that the applicant:

(1) has the necessary water rights authorizing the applicant to appropriate and use the water that the project will provide, if the applicant is proposing surface water development; or

(2) has the right to use water that the project will provide, if the applicant is proposing groundwater development.

Sec. 15.906. APPLICABLE LAW. Subchapter E, Chapter 17, applies to financial assistance made available from the fund, except that the board may also execute contracts as necessary to evidence grant agreements.

Sec. 15.907. RULES. The board shall adopt rules necessary to carry out this subchapter, including rules establishing procedures for application for and for the award of financial assistance, for the investment of funds, and for the administration of the fund.

Sec. 15.908. SALE OF POLITICAL SUBDIVISION BONDS.

(a) The board may sell or dispose of political subdivision bonds at the price and under the terms that the board determines to be reasonable.

(b) The board may sell political subdivision bonds without making a previous offer to the political subdivision that issued the bonds and without advertising, soliciting, or receiving bids for sale.

(c) Notwithstanding other provisions of this chapter, the board may sell to the Texas Water Resources Finance Authority any political subdivision bonds purchased with money in the fund and may apply the proceeds of a sale in the manner provided by this section.

(d) Proceeds from the sale of political subdivision bonds under this section shall be deposited in the fund for use as provided by Section 15.904.

(e) As part of a sales agreement with the Texas Water Resources Finance Authority, the board by contract may agree to perform the functions required to ensure



that the political subdivision pays the debt service on political subdivision bonds sold and observes the conditions and requirements stated in those bonds.

(f) The board may exercise any powers necessary to carry out the authority granted by this section, including the authority to contract with any person to accomplish the purposes of this section.

Sec. 15.909. FUNDING FOR LOCAL ECONOMIC

DEVELOPMENT. (a) The board may use the fund to provide financial assistance to an eligible political subdivision to enable the political subdivision to fund loans and grants for projects that conserve and develop the water resources of the political subdivision for the ultimate benefit of the public, and that develop and diversify its local economy, consistent with the terms and conditions set forth in a program adopted by the governing body of the political subdivision under authority granted by Section 15.910.

(b) The board may not purchase political subdivision bonds issued for the purposes described by Subsection (a) that are secured in whole or in part by a pledge of ad valorem taxes unless the political subdivision submits evidence satisfactory to the board that the issuance of the bonds has been approved by the citizens of the political subdivision voting at an election held for the purposes described in Section 15.910.

Sec. 15.910. AUTHORITY TO ESTABLISH ECONOMIC

DEVELOPMENT PROGRAMS. (a) An eligible political subdivision may establish economic development programs and make loans and grants of public funds to assist in providing projects within the political subdivision that conserve and develop the water resources of the political subdivision for the ultimate benefit of the public. The authority granted to a political subdivision to make loans and grants in accordance with this section constitutes a program in furtherance of the public purposes provided by Section 52-a, Article III, Texas Constitution.

(b) Financial assistance received from the fund may be used by an eligible political subdivision to make loans or grants to persons for projects that the political subdivision finds will conserve and develop the water resources of the political subdivision for the ultimate benefit of the public and assist in diversifying and developing the economy of the political subdivision and the state.

(c) In exercising the authority granted by this section, the governing body of an eligible political subdivision may determine the terms and conditions governing the loan or grant of money and determine whether to approve an agreement with a person who receives a loan or grant.

Sec. 15.911. An eligible political subdivision may not sell or incur obligations to fund an economic development program established under authority granted by Section 15.910 that are payable in whole or in part from ad valorem taxes unless the residents of the political subdivision, voting at an election held for the purpose, approve the issuance of obligations to fund an economic development program for the provision of loans or grants to persons to construct projects that will conserve and develop the water resources of the political subdivision for the ultimate benefit of the public and assist in developing and diversifying the local economy.

SECTION 4.02. Chapter 15, Water Code, is amended by adding Subchapter P to read as follows:

SUBCHAPTER P. RURAL WATER ASSISTANCE FUND

Sec. 15.951. PURPOSE. The legislature finds that the rural areas of the state, characterized by small populations extended over disproportionately large service areas, require a means of financing water projects in addition to those established by other provisions of this chapter.

Sec. 15.952. DEFINITIONS. In this subchapter:

(1) "District" means a conservation or reclamation district created under Section 52, Article III, or Section 59, Article XVI, Texas Constitution.

(2) "Federal agency" means an agency or other entity of the United States Department of Agriculture or an agency or entity that is acting through or on behalf of that department.

(3) "Fund" means the rural water assistance fund.

(4) "Rural political subdivision" means:

(A) a nonprofit water supply or sewer service corporation, district, or municipality with a service area of 10,000 or less in population or that otherwise qualifies for financing from a federal agency; or

(B) a county in which no urban area exceeds 50,000 in population.

(5) "State agency" means an agency or other entity of the state, including the Department of Agriculture and the Texas Department of Housing and Community Affairs and any agency or authority that is acting through or on behalf of the Department of Agriculture or the Texas Department of Housing and Community Affairs.

Sec. 15.953. FUND. The rural water assistance fund is a special account in the general revenue fund. The fund consists of:

(1) money directly appropriated to the board;

(2) repayment of principal and interest from loans made from the fund not otherwise needed as a source of revenue pursuant to Section 17.9615(b);

(3) money transferred by the board from any sources available; and

(4) interest earned on the investment of money in the fund and depository interest allocable to the fund in the general revenue fund.

Sec. 15.954. USE OF FUND. (a) The fund may be used to provide low-interest loans to rural political subdivisions for water or water-related projects, including the purchase of well fields, the purchase or lease of rights to produce groundwater, and interim financing of construction projects.

(b) The fund may be used to enable a rural political subdivision to obtain water supplied by larger political subdivisions or to finance the consolidation or regionalizing of neighboring political subdivisions, or both.

(c) The fund may be used to finance an outreach and technical assistance program to assist rural political subdivisions in obtaining assistance through the fund. The board may use money in the fund to contract for such outreach and technical assistance.

(d) The fund may be used to buy down interest rates on loans.

(e) A rural political subdivision may enter into an agreement with a federal agency or a state agency to submit a joint application for financial assistance under this subchapter.

(f) A nonprofit water supply or sewer service corporation is exempt from payment of any sales tax that may be incurred under other law or ordinance for any project financed by the fund.

(g) The fund may be used as a source of revenue for the payment of principal and interest on water financial assistance bonds issued by the board if the proceeds of the sale of these bonds will be deposited into the rural water assistance fund.

Sec. 15.955. FINANCIAL ASSISTANCE. (a) The board shall adopt rules necessary to administer this subchapter, including rules establishing procedures for the application for and award of loans, the distribution of loans, the investment of funds, and the administration of loans and the fund.

(b) The board may not release from the fund money for the construction phase of parts of projects proposing surface water or groundwater development until the executive administrator makes a written finding that a rural political subdivision:

(1) has the necessary water right authorizing it to appropriate and use the water that the project will provide, if the rural political subdivision is proposing surface water development; or

(2) has the right to use water that the project will provide, if the rural political subdivision is proposing groundwater development.

(c) In passing on an application from a rural political subdivision for financial assistance, the board shall consider:

(1) the needs of the area to be served by the project, the benefit of the project to the area, the relationship of the project to the overall state water needs, and the relationship of the project to the state water plan; and

(2) the availability of revenue to the rural political subdivision from all sources for the ultimate repayment of the cost of the water supply project, including all interest.

(d) The board by resolution may approve an application if, after considering the factors listed in Subsection (c) and other relevant factors, the board finds that:

(1) the public interest is served by state assistance for the project; and

(2) the revenue or taxes pledged by the rural political subdivision will be sufficient to meet all the obligations assumed by the rural political subdivision during the succeeding period of not more than 50 years.

(e) A program of water conservation for the more efficient use of water shall be required in the same manner as is required for approval of an application for financial assistance under Section 15.106.

(f) Sections 17.183-17.187 apply to the construction of projects funded pursuant to this subchapter.

SECTION 4.03. Subsection (j), Section 5.235, Water Code, is amended to read as follows:

(j) The fee for other uses of water not specifically named in this section is \$1 per acre-foot, except that no political subdivision may be required to pay fees to use water for recharge of underground freshwater-bearing sands and aquifers or for abatement of natural pollution. This fee is waived for applications for instream-use water rights deposited into the Texas Water Trust.

SECTION 4.04. Section 15.001, Water Code, is amended by adding Subdivision (12) to read as follows:

(12) "Regionalization" means development of a water supply or wastewater collection and treatment system that incorporates multiple service areas into an areawide service facility or any such system that serves an area that includes more than a single county, city, special district, or other political subdivision of the state.

SECTION 4.05. Subsection (a), Section 15.002, Water Code, is amended to read as follows:

(a) The legislature finds that it is in the public interest and to the benefit of the general public of the state to encourage and to assist in the planning and construction of projects to develop and conserve the storm water and floodwater as well as the ordinary flows of the rivers and streams of the state, to maintain and enhance the quality of the water of the state, to provide protection to the state's citizens from the floodwater of the rivers

and streams of the state, to provide drainage, subsidence control, public beach nourishment, recharge, chloride control, brush control, weather modification, regionalization, and desalination [~~desalinization~~], to provide for the management of aquatic vegetation, and other purposes as provided by law or board rule.

SECTION 4.06. Subsection (b), Section 15.011, Water Code, is amended to read as follows:

(b) After notice and hearing and subject to any limitations established by the General Appropriations Act, the board may transfer money from the fund to the loan fund created under Subchapter C [~~of this chapter~~], the storage acquisition fund created under Subchapter E [~~of this chapter~~], the research and planning fund created under Subchapter F [~~of this chapter~~], the hydrographic survey account created under Subchapter M [~~of this chapter~~], provided the hydrographic survey account transfer does not exceed \$425,000, [~~and~~] the aquatic vegetation management fund created under Subchapter N, and the rural water assistance fund created under Subchapter P [~~of this chapter~~].

SECTION 4.07. Subsections (a) and (b), Section 15.102, Water Code, are amended to read as follows:

(a) The loan fund may be used by the board to provide loans of financial assistance to political subdivisions, federal agencies, or both political subdivisions and federal agencies acting jointly for the construction, acquisition, improvement, or enlargement of projects involving water conservation, water development, or water quality enhancement, providing nonstructural and structural flood control, or drainage, project recreation lands and revenue-generating recreational improvements within any watershed, or providing recharge, chloride control, subsidence control, brush control, weather modification, regionalization, or desalination [~~desalinization~~] as provided by legislative appropriations, this chapter, and the board rules.

(b) The loan fund may also be used by the board to provide grants for;

(1) projects that include supplying water and wastewater services in economically distressed areas, including projects involving retail distribution of those services; and

(2) desalination, brush control, weather modification, regionalization, and projects providing regional water quality enhancement services as defined by board rule, including regional conveyance systems.

SECTION 4.08. Section 15.105, Water Code, is amended to read as follows:

Sec. 15.105. CONSIDERATIONS IN PASSING ON

APPLICATION. (a) In passing on an application for financial assistance from the loan fund, the board shall consider but is not limited to:

(1) the needs of the area to be served by the project and the benefit of the project to the area in relation to the needs of other areas requiring state assistance in any manner and the benefits of those projects to the other areas;

(2) the availability of revenue to the applicant from all sources for the ultimate repayment of the cost of the project, including all interest;

(3) the relationship of the project to overall statewide needs;

(4) the ability of the applicant to finance the project without state assistance; [~~and~~]

(5) for applications for grants for economically distressed areas, the regulatory efforts by the county in which the project is located to control the construction of subdivisions that lack basic utility services; and



(6) for applications for grants under Section 15.102(b)(2), the ability of the applicant to construct the project without the grant and the benefits of the project to water and wastewater needs of the state.

(b) The board by rule shall further define eligibility for grants under this subchapter.

SECTION 4.09. Subsection (a), Section 15.106, Water Code, is amended to read as follows:

(a) The board, by resolution, may approve an application for financial assistance [~~a loan~~] if after considering the factors listed in Section 15.105 of this code and any other relevant factors, the board finds:

(1) that the public interest requires state participation in the project; and

(2) that in its opinion the revenue or taxes pledged by the political subdivision will be sufficient to meet all the obligations assumed by the political subdivision.

SECTION 4.10. Section 15.107, Water Code, is amended to read as follows:

Sec. 15.107. METHOD OF MAKING [~~LOANS OF~~] FINANCIAL ASSISTANCE AVAILABLE. (a) The board may make financial assistance available to successful applicants in any manner that it considers economically feasible including:

(1) contracts or agreements with a political subdivision for the payment of the principal of or interest on or both the principal of and interest on bonds or other obligations issued or to be issued by the political subdivision;

(2) contracts or agreements with a political subdivision for the purpose of providing the political subdivision's share of any cost-sharing required as a participant in or local sponsor of any federal project; [Ø€]

(3) purchase of the bonds or other obligations of a political subdivision for the purpose of completely or partially financing the project for which the application is being submitted; or

(4) contracts or agreements for the receipt of funds and performance of obligations in relation to any grant of funds provided by the board.

(b) Contracts or agreements entered into under Subdivision (1) of Subsection (a) of this section may cover all or any part of the debt service requirements in a given year and may cover debt service requirements in as many years of an issue as the board considers appropriate.

(c) In a determination on a loan for financial assistance, the board may approve interest deferral or the capitalization of interest costs and may approve periods of repayment for the loans of up to 50 years.

SECTION 4.11. Section 15.434, Water Code, is amended to read as follows:

Sec. 15.434. USE OF MONEY IN FUND. Money deposited to the credit of the agricultural soil and water conservation fund, on appropriation by the legislature to the board, the Department of Agriculture, the State Soil and Water Conservation Board, the Texas Agricultural Experiment Station, the Texas Agricultural Extension Service, public colleges and universities, and other state agencies shall be used for the following purposes:

(1) agricultural water conservation technical assistance programs;

- (2) agricultural water conservation, education, and demonstration programs;
- (3) purchase of equipment, including demonstration and educational equipment;
- (4) grants made to groundwater [~~underground water~~] conservation districts and political subdivisions for the purchase of equipment under programs established by Subchapter H of this chapter;
- (5) research in water utilization and conservation including artificial recharge and secondary recovery of groundwater [~~underground water~~];
- (6) desalination [~~desalinization~~];
- (7) weather modification;
- (8) technical assistance programs for developing on-farm soil and water conservation plans developed jointly by landowners and operators and local soil and water conservation districts, as provided by Subchapter H, Chapter 201, Agriculture Code;
- (9) research and demonstration relating to the production of native and low-water-use plants and water-efficient crops;
- (10) a pilot program for low-interest loans for the purchase of agricultural water conservation systems established by Subchapter I of this chapter; [~~and~~]
- (11) research, demonstration, and education relating to brush control; and
- (12) regionalization designed to promote agricultural water conservation.

SECTION 4.12. Section 15.471, Water Code, is amended to read as follows:

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Sec. 15.471. GRANTS; PURPOSES. The board may make grants of money to groundwater [~~underground water~~] conservation districts, to political subdivisions, and to other districts created under Article III, Sections 52(b)(1) and (2), or Article XVI, Section 59, of the Texas Constitution for purchasing equipment required for:

- (1) measurement and evaluation of irrigation systems and agricultural water conservation practices on irrigated land, dryland, and rangeland;
- (2) demonstration of efficient irrigation systems and agricultural water conservation practices on irrigated land, dryland, and rangeland;
- (3) testing and evaluation of water quality and the suitability of water from groundwater or surface water resources for irrigation, rural domestic use, livestock, or agricultural industry use;
- (4) demonstration of efficient or sound chemical application and evaluation or demonstration of systems which will prevent contamination of groundwater and surface water from chemicals and other substances used in agriculture; or
- (5) measurement and data collection related to the conservation of groundwater resources.

SECTION 4.13. Section 15.602, Water Code, is amended by adding a new Subdivision (8) and redesignating existing Subdivisions (8) through (14) as Subdivisions (9) through (15) to read as follows:

- (8) "Person" means an individual, corporation, partnership, association, state, municipality, commission, or political subdivision of a state or any interstate body, as defined by Section 502 of the federal act, including a political subdivision as defined by this subchapter, if the person is eligible for financial assistance under federal law establishing the revolving fund.

(9) "Political subdivision" means a municipality, intermunicipal, interstate, or state agency, any other public entity eligible for assistance under this subchapter, or a nonprofit water supply corporation created and operating under Chapter 67, if such entity is eligible for financial assistance under federal law establishing the state revolving fund or an additional state revolving fund.

(10) [~~(9)~~] "Public water system" means a system that is owned by any person and that meets the definition of public water system in the Safe Drinking Water Act.

(11) [~~(10)~~] "Public works" means any project to acquire, construct, improve, repair, or otherwise provide any buildings, structures, facilities, equipment, or other real or personal property or improvements designed for public use, protection, or enjoyment undertaken by a political subdivision and paid for, in whole or in part, out of public funds.

(12) [~~(11)~~] "Revolving fund" means the state water pollution control revolving fund.

(13) [~~(12)~~] "Safe Drinking Water Act" means Title XIV of the federal Public Health Service Act, commonly known as the Safe Drinking Water Act, as amended (42 U.S.C. Section 300f et seq.).

(14) [~~(13)~~] "Safe drinking water revolving fund" means the fund established by the board as an additional state revolving fund to provide financial assistance in accordance with the federal program established pursuant to the provisions of the Safe Drinking Water Act.

(15) [~~(14)~~] "Treatment works" has the meaning established by the federal act and the eligible components of the management programs established by Sections 319 and 320 of the federal act.

SECTION 4.14. Subsection (a), Section 15.603, Water Code, is amended to read as follows:

(a) The revolving fund is held separately from other funds by the board outside the State Treasury to provide financial assistance to political subdivisions for construction of treatment works and to persons for nonpoint source pollution control and estuary management projects.

SECTION 4.15. Subsection (a), Section 15.604, Water Code, is amended to read as follows:

(a) The board may use the revolving fund for financial assistance only as provided by the federal act:

(1) to make loans, on the conditions that:

(A) those loans are made at or below market interest rates, including interest-free loans, at terms not to exceed 20 years;

(B) principal and interest payments will begin not later than one year after completion of any treatment works and all loans will be fully amortized not later than 20 years after completion of the treatment works;

(C) the recipient of a loan will establish a dedicated source of revenue for repayment of loans; and

(D) the revolving fund will be credited with all payments of principal of and interest on all loans;

(2) to buy or refinance the debt obligation of political subdivisions at or below market rates if the debt obligations were incurred after March 7, 1985;

(3) to guarantee or purchase insurance for political subdivisions if the guarantee or insurance would improve access to market credit or reduce interest rates;

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(4) as a source of revenue or security for the payment of principal and interest on bonds issued by the state if the proceeds of the sale of those bonds will be deposited in the revolving fund;

(5) to provide loan guarantees to similar revolving funds established by municipalities or intermunicipal agencies;

(6) to earn interest on revolving fund accounts;

(7) for the reasonable costs of administering the revolving fund and conducting activities provided for by Title VI of the federal act, except that those amounts may not exceed the amount authorized under Title VI of the federal act; ~~and~~

(8) to provide financial assistance to persons for a nonpoint source pollution control project under Section 319 of the federal act or for an estuary management project under Section 320 of the federal act; and

(9) for other purposes as provided by the federal act.

SECTION 4.16. Section 15.607, Water Code, is amended to read as follows:

Sec. 15.607. APPROVAL OF APPLICATION. On review of recommendations by the executive administrator, the board by resolution may approve an application if the board finds that in its opinion the revenue or taxes or both revenue and taxes pledged by the applicant will be sufficient to meet all the obligations assumed by the applicant ~~[political subdivision]~~ and that the application and assistance applied for meet the requirements of the federal act and state law. A program of water conservation for the more effective use of water shall be required in the same manner as required for approval of an application for financial assistance under Section 15.106 of this code.

SECTION 4.17. Subchapter C, Chapter 16, Water Code, is amended by adding Section 16.059 to read as follows:

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Sec. 16.059. COLLECTION OF INSTREAM FLOW DATA;

CONDUCT OF STUDIES. (a) The Parks and Wildlife Department, the commission, and the board, in cooperation with other appropriate governmental agencies, shall jointly establish and continuously maintain an instream flow data collection and evaluation program and shall conduct studies and analyses to determine appropriate methodologies for determining flow conditions in the state's rivers and streams necessary to support a sound ecological environment. Any stream that consists only of floodwaters and is dry more than 75 percent of the year is exempt from this section.

(b) The Parks and Wildlife Department, the commission, and the board shall each designate an employee to share equally in the oversight of the program studies. Other responsibilities shall be divided between the Parks and Wildlife Department, the commission, and the board to maximize present in-house capabilities of personnel and equipment and to minimize costs to the state.

(c) The Parks and Wildlife Department, the commission, and the board shall each have reasonable access to all data, studies, analyses, information, and reports produced by the other agencies.

(d) The priority studies shall be completed not later than December 31, 2010. The Parks and Wildlife Department, the commission, and the board shall establish a work plan that prioritizes the studies and that sets interim deadlines providing for publication of flow determinations for individual rivers and streams on a reasonably consistent basis throughout the prescribed study period. Before publication, completed studies shall be submitted for comment to the commission, the board, and the Parks and Wildlife Department.

(e) Results of studies completed under this section shall be considered by the commission in its review of any management plan, water right, or interbasin transfer.



(f) The board may authorize the use of money from the research and planning fund established under Chapter 15 to accomplish the purposes of this section. The money shall be used by the board in cooperation with the commission and the Parks and Wildlife Department for interagency contracts with cooperating agencies and universities and contracts with private sector establishments, as necessary, to accomplish the purposes of this section.

SECTION 4.18. Subsection (c), Section 17.853, Water Code, is amended to read as follows:

(c) The board may use the fund only:

(1) to provide state matching funds for federal funds provided to the state water pollution control revolving fund or to any additional state revolving fund created under Subchapter J, Chapter 15;

(2) to provide financial assistance from the proceeds of taxable bond issues to water supply corporations organized under Chapter 67, and other participants;

(3) to provide financial assistance to participants for the construction of water supply projects and treatment works;

(4) to provide financial assistance for an interim construction period to participants for projects for which the board will provide long-term financing through the water development fund; ~~and~~

(5) to provide financial assistance for water supply and sewer service projects in economically distressed areas as provided by Subchapter K, Chapter 17, to the extent the board can make that assistance without adversely affecting the current or future integrity of the fund or of any other financial assistance program of the board; and

(6) to provide funds to the water infrastructure fund created under Section 15.903.

SECTION 4.19. Subdivisions (2) and (6), Section 17.871, Water Code, are amended to read as follows:

(2) "Borrower district" means a political subdivision, including a district or authority created under Article III, Sections 52(b)(1) and (2), or Article XVI, Section 59, of the Texas Constitution, that receives or is eligible to receive a conservation loan from the board for a purpose described by Section 17.895 or 17.8955 [~~improvement to district facilities~~].

(6) "Lender district" means a political subdivision, including a soil and water conservation district under Chapter 201, Agriculture Code, a groundwater [~~an underground water~~] conservation district created under Article XVI, Section 59, of the Texas Constitution, or a district or authority created under Article III, Section 52(b)(1), or Article XVI, Section 59, of the Texas Constitution authorized to supply water for irrigation purposes, that is eligible to receive or that receives a loan from the board for the purpose of making conservation loans to individual borrowers.

SECTION 4.20. Section 17.895, Water Code, is amended to read as follows:

Sec. 17.895. CONSERVATION LOANS. (a) This section applies only to a conservation loan from a lender district that is:

(1) a soil and water conservation district under Chapter 201, Agriculture Code;

(2) a groundwater conservation district created under Section 59, Article XVI, Texas Constitution; or

(3) a district or authority created under Section 52(b)(1), Article III, or Section 59, Article XVI, Texas Constitution.

(b) The board or a lender district [~~districts~~] may make conservation loans for capital equipment or materials, labor, preparation costs, and installation costs:

(1) to improve water use efficiency of water delivery and application on existing irrigation systems;

(2) for preparing irrigated land to be converted to dryland conditions; and

(3) for preparing dryland for more efficient use of natural precipitation[;

~~[(4) for preparing and maintaining land to be used for brush control activities, including but not limited to activities conducted pursuant to Chapter 203, Agriculture Code; or~~

~~[(5) for implementing precipitation enhancement activities in areas of the state where such activities would be, in the board's judgment, most effective].~~

(c) [~~(b)~~] Conservation loans for the purposes listed in Subsection (b) [~~(a)~~] may be made by lender districts to individual borrowers for use on private property or by the board to borrower districts [~~for use on district facilities~~].

(d) [~~(e)~~] The board may make conservation loans to borrower districts for the cost of purchasing and installing devices, on public or private property, designed to indicate the amount of water withdrawn for irrigation purposes.

(e) [~~(d)~~] For purposes of this section, the board or lender districts may seek the advice of the Department of Agriculture regarding the feasibility of a project for which a conservation loan is sought.

SECTION 4.21. Subchapter J, Chapter 17, Water Code, is amended by adding Section 17.8955 to read as follows:

Sec. 17.8955. CONSERVATION LOANS FOR BRUSH CONTROL

AND PRECIPITATION ENHANCEMENT. (a) The board or a lender district may make a conservation loan for capital equipment or materials, labor, preparation costs, and installation costs for:

(1) preparing and maintaining land to be used for brush control activities, including activities conducted under Chapter 203, Agriculture Code; or

(2) implementing precipitation enhancement activities in areas of the state where those activities would be, in the board's judgment, most effective.

(b) A conservation loan for a purpose listed in Subsection (a) may be made by a lender district to an individual borrower for use on private property or by the board to a borrower district.

SECTION 4.22. Subchapter L, Chapter 17, Water Code, is amended by adding Section 17.9615 to read as follows:

Sec. 17.9615. TRANSFERS TO RURAL WATER ASSISTANCE

FUND. (a) The board may direct the comptroller to transfer amounts from the financial assistance account to the rural water assistance fund to provide financial assistance under this subchapter for the purposes provided in Section 15.954.

(b) The board shall use the rural water assistance fund as a source of revenue to be deposited in accordance with this subchapter for the payment of principal and interest on water financial assistance bonds issued by the board, the proceeds of which are to be deposited into the rural water assistance fund and to be used to make payments under a bond enhancement agreement with respect to principal or interest on the water financial assistance bonds.

SECTION 4.23. Subchapter L, Chapter 17, Water Code, is amended by adding Section 17.9616 to read as follows:

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Sec. 17.9616. TRANSFER TO WATER INFRASTRUCTURE

FUND. (a) The board may direct the comptroller to transfer amounts from the financial assistance account to the water infrastructure fund to provide financial assistance under this subchapter for the purposes provided in Section 15.904.

(b) The board shall use the water infrastructure fund as a source of revenue to be deposited in accordance with this subchapter for the payment of principal and interest on water financial assistance bonds issued by the board, the proceeds of which are to be deposited into the water infrastructure fund and to be used to make payments under a bond enhancement agreement with respect to principal or interest on the water financial assistance bonds.

SECTION 4.24. Section 11.32, Tax Code, is amended to read as follows:

Sec. 11.32. CERTAIN WATER CONSERVATION INITIATIVES.

The governing body of a taxing unit by official action of the governing body adopted in the manner required by law for official actions may exempt from taxation part or all of the assessed value of property on which approved water conservation initiatives, desalination projects, or brush control initiatives have been implemented. For purposes of this section, approved water conservation, desalination, and brush control initiatives shall be designated pursuant to an ordinance or other law adopted by the governing unit.

SECTION 4.25. Subchapter H, Chapter 151, Tax Code, is amended by adding Section 151.355 to read as follows:

Sec. 151.355. WATER-RELATED EXEMPTIONS. The following are exempted from taxes imposed by this chapter:

(1) rainwater harvesting equipment or supplies, water recycling and reuse equipment or supplies, or other equipment, services, or supplies used to reduce or eliminate water use;

(2) equipment, services, or supplies used for desalination of surface water or groundwater;

(3) equipment, services, or supplies used for brush control designed to enhance the availability of water;

(4) equipment, services, or supplies used for precipitation enhancement;

(5) equipment, services, or supplies used to construct or operate a water or wastewater system or component of a system sponsored by a political subdivision, as defined by Section 15.001, Water Code, which is certified by the Texas Natural Resource Conservation Commission as providing regional water or wastewater service; and

(6) equipment, services, or supplies used to construct or operate a water supply or wastewater system by a private entity as a public-private partnership, as certified by the political subdivision, as defined by Section 15.001, Water Code, that is a party to the project.

## ARTICLE 5. JOINT COMMITTEE ON WATER RESOURCES

SECTION 5.01. In this article, "committee" means the joint committee on water resources.

SECTION 5.02. The committee shall conduct an interim study and make recommendations regarding:

- (1) increasing the efficient use of existing water resources;
- (2) developing sufficient long-term water financing

strategies;

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- (3) improving existing water conveyance systems;
- (4) water marketing;
- (5) determining the appropriate role of environmental and wildlife concerns in water permitting and water development; and
- (6) protection of the natural condition of beds and banks of the state-owned watercourses.

SECTION 5.03. The committee is composed of six members as follows:

- (1) the chair of the Senate Committee on Natural Resources and the chair of the House Committee on Natural Resources;
- (2) two members of the senate appointed by the lieutenant governor; and
- (3) two members of the house of representatives appointed by the speaker of the house of representatives.

SECTION 5.04. The committee shall:

- (1) meet at least annually with the Texas Natural Resource Conservation Commission and the Texas Water Development Board; and
- (2) receive information relating to:
  - (A) encouraging the effective development of water marketing and water movement;
  - (B) prioritizing the use of state funds for financing the development and conservation of water resources; and
  - (C) identifying reasonable mechanisms, including measures for encouraging donation of water rights, for protecting instream uses.

SECTION 5.05. Not later than November 1, 2002, the committee shall make a final report to the lieutenant governor, the speaker of the house of representatives, and the 78th Legislature evaluating the issues described in Section 5.02 of this article.

SECTION 5.06. The committee has the authority necessary to perform its duties and, in connection with those duties, may call and hold hearings.

SECTION 5.07. The committee may request the assistance of state agencies, departments, or offices to carry out its duties.

SECTION 5.08. The Senate Committee on Natural Resources and the House Committee on Natural Resources shall provide staff to the committee.

SECTION 5.09. The committee shall submit a proposed budget to the appropriate committee on administration in each house of the legislature. The administration committees shall jointly approve the committee budget in an amount appropriate for the committee to accomplish its duties under this article.

SECTION 5.10. The committee may travel around the state and hold hearings or public meetings as needed to fulfill its duties under this article.

SECTION 5.11. This article expires and the committee is abolished on January 1, 2003.

## ARTICLE 6. RULEMAKING PROCEDURES FOR THE EDWARDS

### AQUIFER AUTHORITY

SECTION 6.01. Chapter 626, Acts of the 73rd Legislature, Regular Session, 1993, is amended by adding Section 1.115 to read as follows:

Sec. 1.115. RULEMAKING PROCEDURES. (a) The authority shall comply with the procedures provided by this section in adopting rules.

(b) The authority shall provide, by using the United States mail, notice of a proposed rule to all applicants and permit holders. The authority shall publish in a



newspaper of general circulation within the boundaries of the authority notice of a public hearing on a proposed rule at least 14 days before the date of the public hearing on the rule. The notice must include:

(1) the date, time, and place of the public hearing;

(2) a statement of the general subject matter of the proposed rule;

(3) the procedures for obtaining copies of the proposed rule and for submitting comments; and

(4) the deadline for submitting comments.

(c) The board shall allow at least 45 days for comment on a proposed rule, other than an emergency rule, before the board adopts the rule. The board shall consider all written comments and shall, in the order adopting the rule, state the reasons and justification for the rule and the authority's responses to the written comments.

(d) The meeting at which a proposed rule is adopted as a final rule must be an open meeting, and the public must be allowed to make comments on the proposed rule and the agency responses. A proposed rule becomes final and effective on the 10th day after the date the rule is adopted by the board.

(e) Notwithstanding Subsections (b)-(d) of this section, the board may adopt emergency rules in anticipation of imminent harm to human health, safety, or welfare, or if compliance with the procedures provided in Subsections (b)-(d) of this section would prevent an effective response to emergency aquifer or springflow conditions. The board may adopt emergency rules five days after providing public notice. Emergency rules are effective immediately on adoption for a period of 120 days and may be renewed once for not more than 60 days.

(f) Subsections (b)-(d) of this section do not apply to the adoption of bylaws or internal procedures of the board and authority.

SECTION 6.02. Section 1.15, Chapter 626, Acts of the 73rd Legislature, Regular Session, 1993, is amended by adding Subsections (e) and (f) to read as follows:

(e) The authority shall conduct a contested case hearing on a permit application if a person with a personal justiciable interest related to the application requests a hearing on the application.

(f) The authority shall adopt rules establishing procedures for contested case hearings consistent with Subchapters C, D, and F, Chapter 2001, Government Code.

SECTION 6.03. Subsection (h), Section 1.11, and Subsection (e), Section 1.41, Chapter 626, Acts of the 73rd Legislature, Regular Session, 1993, are repealed.

SECTION 6.04. A rule adopted by the Edwards Aquifer Authority before the effective date of this Act remains in effect until repealed, amended, or readopted. Nothing contained in this article shall be construed as repealing the applicability of the open meetings law, Chapter 551, Government Code, or the public information law, Chapter 552, Government Code, to the Edwards Aquifer Authority.

SECTION 6.05. The rules in 31 T.A.C. Part 20 shall continue in effect until replaced by rules adopted pursuant to this article. The secretary of state shall delete 31 T.A.C. Part 20.

#### ARTICLE 7. LIMITED LIABILITY FOR AQUATIC HERBICIDE APPLICATION

SECTION 7.01. Subchapter B, Chapter 26, Water Code, is amended by adding Section 26.050 to read as follows:

Sec. 26.050. LIMITED LIABILITY FOR AQUATIC HERBICIDE

APPLICATION. (a) In this section, "commercially licensed aquatic herbicide applicator" means a person who holds a commercial applicator license issued by the Department of Agriculture under Chapter 76, Agriculture Code, to apply aquatic herbicides.

(b) Except as provided by Chapter 12, Parks and Wildlife Code, a commercially licensed aquatic herbicide applicator working under contract with a river authority organized pursuant to Section 59, Article XVI, Texas Constitution, is not liable for damages in excess of \$2 million for each occurrence of personal injury, property damage, or death resulting directly or indirectly from the application of aquatic herbicide in compliance with such contract, applicable law, and the license terms or permit.

(c) The control and elimination of noxious weeds, grasses, and vegetation in the rivers, tributaries, impoundments, and reservoirs of the state through the application by river authorities or their agents, employees, or contractors, in compliance with applicable law, licenses, and permits, of aquatic herbicides are essential governmental functions, and except to the extent provided in Chapter 101, Civil Practice and Remedies Code, nothing herein shall be deemed or construed to waive, limit, or restrict the governmental immunity of river authorities in the performance of such governmental functions.

(d) The limited liability provided by this section does not apply to a commercially licensed aquatic herbicide applicator if the applicator uses the wrong aquatic herbicide, fails to follow manufacturers' warnings, instructions, and directions for the application of the aquatic herbicide, fails to follow the directions of the river authority concerning the application of the aquatic herbicide, or applies the aquatic herbicide in a manner that violates federal or state law, rules, or regulations.

ARTICLE 8. CONCENTRATED ANIMAL FEEDING OPERATIONS

SECTION 8.01. Section 26.0286, Water Code, is amended to read as follows:

Sec. 26.0286. PROCEDURES APPLICABLE TO PERMITS FOR CERTAIN CONCENTRATED ANIMAL FEEDING OPERATIONS. (a) In this section:

(1) "Sole-source~~["sole-source]~~ surface drinking water supply" means a body of surface water that[:

~~(1)]~~ is designated as a sole-source surface drinking ~~[public]~~ water supply in rules adopted by the commission ~~[under Section 26.023; and~~

~~(2) is the single source of supply of a public water supply system, exclusive of emergency water interconnections].~~

(2) "Protection zone" means an area so designated by commission rule under Subsection (c).

(b) The commission shall process an application for authorization to construct or operate a concentrated animal feeding operation as a specific permit under Section 26.028 subject to the procedures provided by Subchapter M, Chapter 5, if, on the date the commission determines that the application is administratively complete, any part of a pen, lot, pond, or other type of control or retention facility or structure of the concentrated animal feeding operation is located or proposed to be located within the protection zone of a sole-source surface drinking water supply. For the purposes of this subsection, a land application area is not considered a control or retention facility[:

~~(1) in the watershed of a sole-source surface drinking water supply; and~~

~~(2) sufficiently close, as determined by the commission by rule, to an intake of a public water supply system in the sole-source surface drinking water~~

~~supply that contaminants discharged from the concentrated animal feeding operation could potentially affect the public drinking water supply].~~

(c) For the purposes of this section only, the commission by rule shall designate a surface water body as a sole-source surface drinking water supply if that surface water body is identified as a public water supply in rules adopted by the commission under Section 26.023 and is the sole source of supply of a public water supply system, exclusive of emergency water connections. At the same time, the commission shall designate as a protection zone any area within the watershed of a sole-source surface drinking water supply that is:

(1) within two miles of the normal pool elevation of a body of surface water that is a sole-source surface drinking water supply;

(2) within two miles of that part of a perennial stream that is:

(A) a tributary of a sole-source surface drinking water supply; and

(B) within three linear miles upstream of the normal pool elevation of a sole-source surface drinking water supply; or

(3) within two miles of that part of a stream that is a sole-source surface drinking water supply, extending three linear miles upstream from the water supply intake.

SECTION 8.02. Not later than the 45th day after the effective date of this Act, the Texas Natural Resource Conservation Commission by order shall identify surface water bodies that are considered "sole-source surface drinking water supplies" for purposes of Subsection (b), Section 26.0286, Water Code, as amended by this Act, and shall designate the protection zones for those identified water bodies. The order expires on the date on which the commission adopts final rules under Subsection (c), Section 26.0286, Water Code, as added by this Act.

ARTICLE 9. REVOCATION OF CERTIFICATE OF PUBLIC UTILITY

SECTION 9.01. Subchapter G, Chapter 13, Water Code, is amended by adding Section 13.2541 to read as follows:

Sec. 13.2541. REVOCATION OF CERTIFICATE WHEN SERVICE PROVIDED TO A MUNICIPALITY. (a) This section applies only to a municipality with a population of more than 1.3 million.

(b) On request of a municipality served by a public utility, the commission at any time after notice and hearing may revoke the public utility's certificate of public convenience and necessity if it finds that the public utility:

(1) has never provided, is no longer providing, or has failed to provide continuous and adequate service in the municipality requesting the revocation; or

(2) has been grossly or continuously mismanaged or has grossly or continuously not complied with this chapter, commission rules, or commission orders.

(c) If the certificate of a public utility is revoked under Subsection (b), the municipality that requested the revocation shall operate the decertified public utility for an interim period prescribed by commission rule and shall request commission approval to acquire the decertified public utility's facilities and to transfer the decertified public utility's certificate of convenience and necessity to the municipality. The municipality must apply in accordance with Subchapter H.

(d) The compensation paid to the decertified public utility for its facilities shall be determined by a qualified individual or firm serving as independent appraiser agreed upon by the decertified public utility and the municipality. The determination of compensation by the independent appraiser shall be binding on the commission. The municipality shall pay the costs of the independent appraiser. For the purpose of implementing

this section, the value of real property shall be determined according to the standards prescribed by Chapter 21, Property Code, governing actions in eminent domain.

(e) The commission shall determine whether the municipality shall pay the compensation in a lump sum or over a specified period.

#### ARTICLE 10. WATER UTILITY SYSTEMS

SECTION 10.01. Section 13.137, Water Code, is amended to read as follows:

Sec. 13.137. OFFICE AND OTHER BUSINESS LOCATIONS OF UTILITY; RECORDS; REMOVAL FROM STATE. (a) Every utility shall:

(1) make available and notify its customers of a business location where its customers may make payments to prevent disconnection of or to restore service:

(A) in each county in which the utility provides service; or

(B) not more than 20 miles from the residence of any residential customer if there is no location to receive payments in the county; and

(2) have an office in a county of this state or in the immediate area in which its property or some part of its property is located in which it shall keep all books, accounts, records, and memoranda required by the commission to be kept in this state.

(b) The commission by rule may provide for waiving the requirements of Subsection (a)(1) for a utility for which meeting those requirements would cause a rate increase or otherwise harm or inconvenience customers. The rules must provide for an additional 14 days to be given for a customer to pay before a utility that is granted a waiver may disconnect service for late payment.

(c) Books, accounts, records, or memoranda required by the regulatory authority to be kept in the state may not be removed from the state, except on conditions prescribed by the commission.

SECTION 10.02. Section 13.144, Water Code, is amended to read as follows:

Sec. 13.144. NOTICE OF WHOLESALE WATER SUPPLY CONTRACT. A district or authority created under Section 52, Article III, or Section 59, Article XVI, Texas Constitution, a retail public utility, a wholesale water service, or other person providing a retail public utility with a wholesale water supply shall provide the commission with a certified copy of any wholesale water supply contract with a retail public utility within 30 days after the date of the execution of the contract. The submission must include the amount of water being supplied, term of the contract, consideration being given for the water, purpose of use, location of use, source of supply, point of delivery, limitations on the reuse of water, a disclosure of any affiliated interest between the parties to the contract, and any other condition or agreement relating to the contract.

SECTION 10.03. Subchapter E, Chapter 13, Water Code, is amended by adding Section 13.145 to read as follows:

Sec. 13.145. MULTIPLE SYSTEMS CONSOLIDATED UNDER TARIFF. A utility may consolidate more than one system under a single tariff only if:

(1) the systems under the tariff are substantially similar in terms of facilities, quality of service, and cost of service; and

(2) the tariff provides for rates that promote water conservation for single-family residences and landscape irrigation.

SECTION 10.04. Section 13.182, Water Code, is amended to read as follows:

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Sec. 13.182. JUST AND REASONABLE RATES. (a) The regulatory authority shall ensure that every rate made, demanded, or received by any utility or by any two or more utilities jointly shall be just and reasonable.

(b) Rates shall not be unreasonably preferential, prejudicial, or discriminatory but shall be sufficient, equitable, and consistent in application to each class of consumers.

(c) For ratemaking purposes, the commission may treat two or more municipalities served by a utility as a single class wherever the commission considers that treatment to be appropriate.

(d) The commission by rule shall establish a preference that rates under a consolidated tariff be consolidated by region. The regions under consolidated tariffs must be determined on a case-by-case basis.

SECTION 10.05. Section 13.183, Water Code, is amended by amending Subsection (c) and adding Subsections (d) and (e) to read as follows:

(c) To ensure that retail customers receive a higher quality, more affordable, or more reliable water or sewer service, to encourage regionalization, or to maintain financially stable and technically sound utilities, the regulatory authority, by rule or ordinance, as appropriate, may adopt specific alternative ratemaking [~~may develop~~] methodologies for water or sewer rates based on factors other than rate of return and those specified in Section 13.185. Overall revenues determined according [~~pursuant~~] to an alternative ratemaking [~~alternate~~] methodology adopted [~~developed~~] under this section must provide revenues to the utility that satisfy the requirements of Subsection (a). The regulatory authority may not approve rates under an alternative ratemaking methodology unless the regulatory authority adopts the methodology before the date the rate application was administratively complete.

(d) A regulatory authority other than the commission may not approve an acquisition adjustment for a system purchased before the effective date of an ordinance authorizing acquisition adjustments.

(e) In determining to use an alternative ratemaking methodology [~~alternate ratemaking methodologies~~], the regulatory authority shall assure that rates, operations, and services are just and reasonable to the consumers and to the utilities.

SECTION 10.06. Section 13.187, Water Code, is amended to read as follows:

Sec. 13.187. STATEMENT OF INTENT TO CHANGE RATES; HEARING; DETERMINATION OF RATE LEVEL. (a) A utility may not make changes in its rates except by delivering a statement of intent to each ratepayer and with the regulatory authority having original jurisdiction at least 60 [~~30~~] days before the effective date of the proposed change. The effective date of the new rates must be the first day of a billing period, and the new rates may not apply to service received before the effective date of the new rates. The statement of intent must include:

(1) the information required by the regulatory authority's rules;

(2) a billing comparison regarding the existing water rate and the new water rate computed for the use of:

(A) 10,000 gallons of water; and

(B) 30,000 gallons of water; and

(3) a billing comparison regarding the existing sewer rate and the new sewer rate computed for the use of 10,000 gallons, unless the utility proposes a flat rate for sewer services.

(b) A copy of the statement of intent shall be mailed or delivered to the appropriate offices of each affected municipality, and to any other affected persons as required by the regulatory authority's rules.

(c) When the statement of intent is delivered, the utility shall file with the regulatory authority an application to change rates. The application must include information the regulatory authority requires by rule. If the utility fails to provide within a reasonable time after the application is filed the necessary documentation or other evidence that supports the costs and expenses that are shown in the application, the regulatory authority may disallow the nonsupported expenses.

(d) If the application or the statement of intent is not substantially complete or does not comply with the regulatory authority's rules, it may be rejected and the effective date of the rate change may be suspended until a properly completed application is accepted by the regulatory authority and a proper statement of intent is provided. The commission may also suspend the effective date of any rate change if the utility does not have a certificate of public convenience and necessity or a completed application for a certificate or to transfer a certificate pending before the commission or if the utility is delinquent in paying the assessment and any applicable penalties or interest required by Section 5.235(n) of this code.

(e) ~~(b)~~ If, before the 91st day ~~[within 60 days]~~ after the effective date of the rate change, the regulatory authority receives a complaint from any affected municipality, or from the lesser of 1,000 or 10 percent of the ratepayers of the utility over whose rates the regulatory authority has original jurisdiction, the regulatory authority shall set the matter for hearing.

(f) The regulatory authority may set the matter for hearing on its own motion at any time within 120 days after the effective date of the rate change. If more than half

of the ratepayers of the utility receive service in a county with a population of more than 2.5 million, the hearing must be held at a location in that county.

(g) The hearing may be informal.

(h) If, after hearing, the regulatory authority finds the rates currently being charged or those proposed to be charged are unreasonable or in violation of law, the regulatory authority shall determine the rates to be charged by the utility and shall fix the rates by order served on the utility.

(i) ~~(e)~~ The regulatory authority, pending final action in a rate proceeding, may order the utility to deposit all or part of the rate increase received or to be received into an escrow account with a financial institution approved by the regulatory authority. Unless otherwise agreed to by the parties to the rate proceeding, the utility shall refund or credit against future bills all sums collected during the pendency of the rate proceeding in excess of the rate finally ordered plus interest as determined by the regulatory authority.

(j) For good cause shown, the regulatory authority may authorize the release of funds to the utility from the escrow account during the pendency of the proceeding.

(k) If the regulatory authority receives at least the number of complaints from ratepayers required for the regulatory authority to set a hearing under Subsection (e), the regulatory authority may, pending the hearing and a decision, suspend the date the rate change would otherwise be effective. The proposed rate may not be suspended for longer than:

(1) 90 days by a local regulatory authority; or

(2) 150 days by the commission.

(l) At any time during the pendency of the rate proceeding the regulatory authority may fix interim rates to remain in effect until a final determination is made on the proposed rate.

(m) If the regulatory authority sets a final rate that is higher than the interim rate, the utility shall be allowed to collect the difference between the interim rate and final rate unless otherwise agreed to by the parties to the rate proceeding.

(n) For good cause shown, the regulatory authority may at any time during the proceeding require the utility to refund money collected under a proposed rate before the rate was suspended or an interim rate was established to the extent the proposed rate exceeds the existing rate or the interim rate.

(o) If a ~~the~~ regulatory authority other than the commission establishes interim rates or an escrow account, the regulatory authority must make a final determination on the rates not later than the first anniversary of ~~[within 335 days after]~~ the effective date of the interim rates or escrowed rates or the rates are automatically approved as requested by the utility.

(p) ~~(d)~~ Except to implement a rate adjustment provision approved by the regulatory authority by rule or ordinance, as applicable, or to adjust the rates of a newly acquired utility system, a utility or two or more utilities under common control and ownership may not file a statement of intent to increase its rates more than once in a 12-month period, unless the regulatory authority determines that a financial hardship exists. If the regulatory authority requires the utility to deliver a corrected statement of intent, the utility is not considered to be in violation of the 12-month filing requirement.

SECTION 10.07. Subchapter I, Chapter 13, Water Code, is amended by adding Section 13.343 to read as follows:

Sec. 13.343. WHOLESALE WATER CONTRACTS BETWEEN CERTAIN AFFILIATES. (a) The owner of a utility that supplies retail water service may not contract to purchase from an affiliated supplier wholesale water service for any of that owner's systems unless:

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(1) the wholesale service is provided for not more than 90 days to remedy an emergency condition, as defined by commission rule; or

(2) the executive director determines that the utility cannot obtain wholesale water service from another source at a lower cost than from the affiliate.

(b) The utility may not purchase groundwater from any provider if:

(1) the source of the groundwater is located in a priority groundwater management area; and

(2) a wholesale supply of surface water is available.

SECTION 10.08. (a) The changes in law made by this article to Chapter 13, Water Code, apply to a proceeding in which the Texas Natural Resource Conservation Commission has not issued a final order before the effective date of this article; provided, however, that this article does not apply to a retail public utility for which a final order in any rate proceeding has been issued by the Texas Natural Resource Conservation Commission prior to January 1, 2001, as long as that retail public utility is the same as, controlled by, or an affiliate of the retail public utility for which a final order was issued prior to January 1, 2001. This subsection shall not be construed to permit a public utility to increase rates without obtaining the approval of the Texas Natural Resource Conservation Commission.

(b) Section 13.343, Water Code, as added by this article, does not apply to a contract executed before the effective date of this article. A contract executed before the effective date of this article is governed by the law in effect on the date it was executed, and that law is continued in effect for that purpose.

#### ARTICLE 11. MISCELLANEOUS PROVISIONS

SECTION 11.01. Section 26.177, Water Code, is amended by adding Subsection (h) to read as follows:

(h) Property subject to a permit or plat in the extraterritorial jurisdiction of a municipality may not be subjected to new or additional water pollution regulations if the property is transferred to another municipality's extraterritorial jurisdiction, and all provisions of Chapter 245, Local Government Code, shall apply to the property. If the release of extraterritorial jurisdiction for the purpose of transferring it to another municipality results in property not being subject to any municipality's water pollution regulations on the date of release, the releasing municipality retains its jurisdiction to enforce its water pollution regulations until the property is included in the extraterritorial jurisdiction of the receiving municipality.

SECTION 11.02. Section 26.359, Water Code, is amended to read as follows:

Sec. 26.359. LOCAL REGULATION OR ORDINANCE. (a) In this section, "local government" means a school district, county, municipality, junior college district, river authority, water district or other special district, or other political subdivision created under the constitution or a statute of this state.

(b) A [This subchapter establishes a unified statewide program for underground and surface water protection, and any local] regulation or ordinance adopted by a local government that imposes standards [is effective only to the extent the regulation or ordinance does not conflict with the standards adopted] for the design, construction, installation, or operation of underground storage tanks is not valid [under this subchapter].

(c) This section does not apply to a rule adopted by the Edwards Aquifer Authority, or to a regulation or ordinance in effect as of January 1, 2001, or thereafter amended.

SECTION 11.03. (a) Section 27.051, Water Code, is amended by adding Subsection (h) to read as follows:

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(h) The commission may not authorize by rule or permit an injection well that transects or terminates in the Edwards Aquifer. The commission by rule may authorize injection of groundwater withdrawn from the Edwards Aquifer, or injections of storm water, flood water, or groundwater through improved sinkholes or caves located in karst topographic areas. For purposes of this subsection, "Edwards Aquifer" has the meaning assigned by Section 26.046(a).

(b) The change in law made by Subsection (h), Section 27.051, Water Code, as added by this section, applies only to an application for a permit that is filed with the Texas Natural Resource Conservation Commission on or after September 1, 2001.

SECTION 11.04. Section 36.121, Water Code, is amended to read as follows:

Sec. 36.121. LIMITATION ON RULEMAKING POWER OF DISTRICTS OVER WELLS IN CERTAIN COUNTIES. Except as provided by Section 36.117, a district that is created under this chapter on or after September 1, 1991, shall exempt from regulation under this chapter a well and any water produced or to be produced by a well that is located in a county that has a population of 14,000 or less if the water is to be used solely to supply a municipality that has a population of 121,000 [~~115,000~~] or less and the rights to the water produced from the well are owned by a political subdivision that is not a municipality, or by a municipality that has a population of 100,000 [~~93,000~~] or less, and that purchased, owned, or held rights to the water before the date on which the district was created, regardless of the date the well is drilled or the water is produced. The district may not prohibit the political subdivision or municipality from transporting produced water inside or outside the district's boundaries.

**ARTICLE 12. NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**

SECTION 12.01. Subsection (a), Section 4.06, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:



(a) The authority may:

(1) acquire and provide by purchase, gift, ~~or~~ lease, contract, or any other legal means, a water treatment or supply system, or any other works, plants, improvements, or facilities necessary or convenient to accomplish the purposes of the authority, or any interest in those assets, inside of or outside of the authority's boundaries;

(2) design, finance, or construct a water treatment or supply system, or any other supply systems, or any other works, plants, improvements, or facilities necessary or convenient to accomplish the purposes of the authority, and provide water services inside of or outside of the authority's boundaries;

(3) maintain, operate, lease, or sell a water treatment or supply system, or any other works, plants, improvements, or facilities necessary or convenient to accomplish the purposes of the authority, that the authority constructs or acquires inside of or outside of the authority's boundaries; and

(4) contract with any person to operate or maintain a water treatment or supply system the person owns.

ARTICLE 13. REPORTS; REPEALER; TRANSITION; VALIDATION;

EFFECTIVE DATE

SECTION 13.01. BOARD STUDY AND REPORT ON

FINANCING WATER INFRASTRUCTURE PROJECTS. The Texas Water Development Board shall consider the reports submitted by the regional planning groups under Subsection (q), Section 16.053, Water Code, as added by this Act, relating to financing water infrastructure projects and shall consult with potentially impacted groups and other interested persons regarding the information reported and the recommendations made by the regional planning groups. Not later than October 1, 2002, the board shall submit to the legislature a report

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consisting of the regional planning groups' reports and the board's analysis of and recommendations regarding those reports.

SECTION 13.02. REPEALER. Sections 35.005 and 35.006, Water Code, are repealed.

SECTION 13.03. TRANSITIONS. (a) The changes in law made by this Act by amending Section 17.895, Water Code, and adding Section 17.8955, Water Code, apply only to a conservation loan for which an application is filed on or after the effective date of this Act. A conservation loan for which an application was filed before the effective date of this Act is governed by the law in effect immediately before that date, and that law is continued in effect for that purpose.

(b) Not later than January 1, 2002, the Texas Water Development Board shall adopt rules to administer Subchapter O, Chapter 15, Water Code, as added by this Act, including rules establishing procedures for applications for and the award of financial assistance for water projects, for the investment of funds, and for the administration of the water infrastructure fund, as created by this Act.

(c) Not later than January 1, 2002, the Texas Water Development Board shall adopt rules to administer Subchapter P, Chapter 15, Water Code, as added by this Act, including establishing procedures for the application for and award of loans, the distribution of loans, the investment of funds, and the administration of loans and the rural water assistance fund, as created by this Act.

(d) Not later than January 1, 2002, the Texas Water Development Board shall adopt rules requiring a holder of a surface water permit, certified filing, or certificate of adjudication for surface water, a holder of a permit for the export of groundwater from a groundwater conservation district, a retail public water supplier, a wholesale water provider, and

an irrigation district to report to the board information on certain water pipelines and other facilities that can be used for water conveyance.

(e) The changes in law made by this Act by amending Sections 11.023 and 11.122, Water Code, shall not change the existing priority of any industrial water right holder on the mainstem of the Rio Grande below Amistad Reservoir who uses or supplies water to a nursery grower.

(f) If any changes made by this Act to Chapter 36, Water Code, conflict with changes made to Chapter 36, Water Code, by any other Act passed by the 77th Legislature, Regular Session, 2001, this Act shall prevail.

**SECTION 13.04. FINDINGS RELATED TO PROCEDURAL REQUIREMENTS.** (a) The proper and legal notice of the intention to introduce this Act, setting forth the general substance of this Act, has been published as provided by law, and the notice and a copy of this Act have been furnished to all persons, agencies, officials, or entities to which they are required to be furnished by the constitution and other laws of this state, including the governor, who has submitted the notice and Act to the Texas Natural Resource Conservation Commission.

(b) The Texas Natural Resource Conservation Commission has filed its recommendations relating to this Act with the governor, lieutenant governor, and speaker of the house of representatives within the required time.

(c) All requirements of the constitution and laws of the state and the rules and procedures of the legislature with respect to the notice, introduction, and passage of this Act are fulfilled and accomplished.

**SECTION 13.05. SEVERABILITY.** If any provision of this Act or its application to any person or circumstance is held invalid, the invalidity does not affect other

provisions or applications of this Act that can be given effect without the invalid provision or application, and to this end the provisions of this Act are declared to be severable.

SECTION 13.06. EFFECTIVE DATE. This Act takes effect  
September 1, 2001.

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President of the Senate

Speaker of the House

I hereby certify that S.B. No. 2 passed the Senate on April 19, 2001, by a viva-voce vote; May 23, 2001, Senate refused to concur in House amendments and requested appointment of Conference Committee; May 24, 2001, House granted request of the Senate; May 27, 2001, Senate adopted Conference Committee Report by a viva-voce vote.

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Secretary of the Senate

I hereby certify that S.B. No. 2 passed the House, with amendments, on May 22, 2001, by a non-record vote; May 24, 2001, House granted request of the Senate for appointment of Conference Committee; May 27, 2001, House adopted Conference Committee Report by a non-record vote.

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Chief Clerk of the House

Approved:

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Date

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Governor

{00185659}

AN ACT

relating to the meaning of "agricultural crop" for purposes of the exemption of certain wells from fees charged by the North Harris County Regional Water Authority.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF  
TEXAS:

SECTION 1. Section 1.02, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by amending Subdivision (11) and adding Subdivisions (12), (13), and (14) to read as follows:

(11) "Agricultural crop" means:

(A) a food or fiber commodity [~~commodities~~]

grown for resale or commercial purposes that provides [~~provide~~] food, clothing, or animal feed;

or

(B) a nursery product or florist item while in the hands of a nursery grower.

(12) "Florist item" means a cut flower, potted plant, blooming plant, inside foliage plant, bedding plant, corsage flower, cut foliage, floral decoration, or live decorative material.

(13) "Nursery grower" means a person who grows, in any medium, more than 50 percent of the nursery products or florist items that the person either sells or leases, regardless of the variety sold, leased, or grown. For the purposes of this definition, "grow" means the actual cultivation or propagation of the nursery product or florist item beyond the mere holding or maintaining of the item prior to sale or lease and typically includes activities associated with the production or multiplying of stock such as the development of new plants from cuttings, grafts, plugs, or seedlings.

(14) "Nursery product" includes a tree, shrub, vine, cutting, graft, scion, grass, bulb, or bud that is grown for, kept for, or is capable of propagation and distribution for sale or lease.

SECTION 2. This Act takes effect September 1, 2001.

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President of the Senate

Speaker of the House

I hereby certify that S.B. No. 270 passed the Senate on March 8, 2001,  
by the following vote: Yeas 30, Nays 0, one present, not voting.

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Secretary of the Senate

I hereby certify that S.B. No. 270 passed the House on May 8, 2001,  
by a non-record vote.

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Chief Clerk of the House

Approved:

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Date

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Governor



AN ACT

relating to the general powers and authority of water districts; providing a penalty.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF  
TEXAS:

SECTION 1. Subsection (d), Section 49.054, Water Code, is  
amended to read as follows:

(d) If the board appoints a director to serve as treasurer, that director is not subject to the investment officer training requirements of Chapter 2256 [~~Section 2256.007~~], Government Code, unless the director is also appointed as the district's investment officer under Chapter 2256, Government Code.

SECTION 2. Subsection (a), Section 49.057, Water Code, is  
amended to read as follows:

(a) The board shall be responsible for the management of all the affairs of the district. The district shall employ or contract with all persons, firms, partnerships, corporations, or other entities, public or private, deemed necessary by the board for the conduct of the affairs of the district, including, but not limited to, engineers, attorneys, financial advisors, operators, bookkeepers, tax assessors and collectors, auditors, and administrative staff. The board may appoint an employee of a firm, partnership, corporation, or other entity with which the district has contracted to serve as the investment officer of the district under Chapter 2256 [~~Section 2256.007~~], Government Code.

SECTION 3. Subsection (a), Section 49.060, Water Code, is  
amended to read as follows:

(a) A director is entitled to receive fees of office of not more than \$150 [~~\$100~~] a day for each day the director actually spends performing the duties of a director. The fees of office may not exceed \$6,000 per annum except for directors of a special water authority which is engaged in the distribution and sale of electric energy to the public.

SECTION 4. Section 49.102, Water Code, is amended by adding a new Subsection (i) and redesignating existing Subsection (i) as Subsection (j) to read as follows:

(i) A district, at an election required under Subsection (a), may submit to the qualified voters of the district the proposition of whether a plan as authorized by Section 49.351 should be implemented or entered into by the district.

(j) The provisions of this section shall not be applicable to any district exercising the powers of Chapter 375, Local Government Code, or any district created by a special Act of the legislature that does not require a confirmation election.

SECTION 5. Section 49.106, Water Code, is amended by adding Subsection (e) to read as follows:

(e) A district's authorization to issue bonds resulting from an election held under this section, or any other law that allows for the qualified voters of a district to authorize the issuance of bonds by a district, remains in effect after the election unless the district is dissolved or is annexed by another district.

SECTION 6. Section 49.107, Water Code, is amended by adding Subsection (g) to read as follows:

(g) Sections 26.04, 26.05, and 26.07, Tax Code, do not apply to a tax levied and collected under this section or an ad valorem tax levied and collected for the payment of the interest on and principal of bonds issued by a district.

SECTION 7. Section 49.108, Water Code, is amended by amending Subsection (e) and adding Subsection (f) to read as follows:

(e) A district that is required under Section 49.181 to obtain approval by the commission of the district's issuance of bonds must obtain approval by the executive director before the district enters into an obligation under this section to collect tax for debt that exceeds three years. This subsection does not apply to contract taxes that are levied to pay for a district's share of bonds that have been issued by another district and approved by the commission or for bonds issued by a municipality.

(f) Sections 26.04, 26.05, and 26.07, Tax Code, do not apply to a tax levied and collected for payments made under a contract approved in accordance with this section.

SECTION 8. Subsection (c), Section 49.151, Water Code, is amended to read as follows:

(c) The board may [~~by resolution~~] allow disbursements of district money to be transferred by federal reserve wire system. The board by resolution may allow the wire transfers to accounts in the name of the district or accounts not in the name of the district.

SECTION 9. Subsection (a), Section 49.155, Water Code, is amended to read as follows:

(a) The district may pay out of bond proceeds or other available funds of the district all expenses of the district authorized by this section, including expenses reasonable and necessary to effect the issuance, sale, and delivery of bonds as determined by the board, including, but not limited to, the following:

(1) interest during construction [~~not to exceed three years after acceptance of the project~~];

(2) capitalized interest not to exceed three years' interest;

(3) reasonable and necessary reserve funds not to exceed two years' interest on the bonds;

(4) interest on funds advanced to the district;

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- (5) financial advisor, bond counsel, attorney, and other consultant fees;
- (6) paying agent, registrar, and escrow agent fees;
- (7) right-of-way acquisition;
- (8) underwriter's discounts or premiums;
- (9) engineering fees, including surveying expenses and plan review fees;
- (10) commission and attorney general fees;
- (11) printing costs;
- (12) all organizational, administrative, and operating costs during creation and construction periods;
- (13) the cost of investigation and making plans, including preliminary plans and associated engineering reports;
- (14) land required for stormwater control;
- (15) costs associated with requirements for federal stormwater permits; and
- (16) costs associated with requirements for endangered species permits.

SECTION 10. Subsection (b), Section 49.183, Water Code, is amended to read as follows:

(b) Except for refunding bonds, or bonds sold to a state or federal agency, ~~[after any bonds are finally approved and]~~ before any bonds ~~[they]~~ are sold by a district, the board shall publish an appropriate notice of the sale:

- (1) at least one time not less than 10 days before the date of sale in a newspaper of general circulation in the county or counties in which the district is located; and
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(2) at least one time in one or more recognized financial publications of general circulation in the state as approved by the state attorney general.

SECTION 11. Section 49.184, Water Code, is amended by adding Subsection (f) to read as follows:

(f) In any proceeding concerning the validity of the creation of a district or the annexation of property by a district, a certificate of ownership as certified by the central appraisal district of the county or counties in which the property is located creates a presumption of ownership, and additional proof of ownership is not required unless there is substantial evidence in the official deed records of the county in which the property is located to rebut the presumption. On request by a district, the central appraisal district of the county or counties in which the district is located shall furnish certificates of ownership and may charge reasonable fees to recover the actual costs incurred in preparing the certificates.

SECTION 12. Section 49.212, Water Code, is amended by amending Subsections (a) and (d) and adding Subsection (e) to read as follows:

(a) A district may adopt and enforce all necessary charges, mandatory fees, or rentals, in addition to taxes, for providing or making available any district facility or service, including fire-fighting activities provided under Section 49.351.

(d) Notwithstanding any provision of law to the contrary, a district that charges a fee that is an impact fee as described in Section 395.001(4), Local Government Code, must comply with Chapter 395, Local Government Code. A charge or fee by a district for construction, installation, or inspection of a tap or connection to district water, sanitary sewer, or drainage facilities, including all necessary service lines and meters, or for wholesale facilities that serve such water, sanitary sewer, or drainage facilities that (i) does not exceed three times the actual and reasonable costs to the district for such tap or connection, ~~or~~ (ii) if made to a nontaxable entity for retail or wholesale service, does not exceed the actual costs to the district for such work and for all facilities that are necessary to provide district services to such entity

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and that are financed or are to be financed in whole or in part by tax-supported or revenue bonds of the district, or (iii) if made by a district for retail or wholesale service on land that at the time of platting was not being provided with water or wastewater service by the district, shall not be deemed to be an impact fee under Chapter 395, Local Government Code. A district may pledge the revenues of the district's utility system to pay the principal of or interest on bonds issued to construct the capital improvements for which a fee was imposed under this subsection, and money received from the fees shall be considered revenues of the district's utility system for purposes of the district's bond covenants.

(e) Chapter 2007, Government Code, does not apply to a tax levied, a standby fee imposed, or a charge, fee, or rental adopted or enforced by a district under this chapter, another chapter of this code, or Chapter 395, Local Government Code.

SECTION 13. Section 49.218, Water Code, is amended by adding a new Subsection (d), relettering existing Subsection (d) as Subsection (f), and adding Subsections (e) and (g) to read as follows:

(d) A district or water supply corporation may require a service applicant, as a condition of service, to grant a permanent recorded easement dedicated to the district or water supply corporation that will provide a reasonable right of access and use to allow the district or water supply corporation to construct, install, maintain, replace, upgrade, inspect, and test any facilities necessary to serve that applicant as well as the district's or water supply corporation's purposes in providing systemwide service. A district or water supply corporation may not require an applicant to provide an easement for a service line for the sole benefit of another applicant.

(e) As a condition of service to a new subdivision, a district or water supply corporation may require a developer to provide permanent recorded easements to and throughout the subdivision sufficient to construct, install, maintain, replace, upgrade, inspect,

and test any facilities necessary to serve the subdivision's anticipated service demands on full occupancy.

(f) A district or water supply corporation may also lease property from others for its use on such terms and conditions as the board of the district or the board of directors of the water supply corporation may determine to be advantageous.

(g) Property acquired under this section, or any other law allowing the acquisition of property by a district or water supply corporation, and owned by a district or water supply corporation is not subject to assessments, charges, fees, or dues imposed by a nonprofit corporation under Chapter 204, Property Code.

SECTION 14. Section 49.226, Water Code, is amended to read as follows:

Sec. 49.226. SALE OR EXCHANGE OF REAL [~~SURPLUS LAND~~] OR PERSONAL PROPERTY. (a) Any personal property valued at more than \$300 or any land or interest in land owned by the district which is found by the board to be surplus and is not needed by the district may be sold under order of the board either by public or private sale, or the land, interest in land, or personal property may be exchanged for other land, interest in land, or personal property needed by the district. Except as provided in Subsection (b), land, interest in land, or personal property must be exchanged for like fair market value, which value may be determined by the district.

(b) Any property dedicated to or acquired by the district without expending district funds may be abandoned or released to the original grantor, the grantor's heirs, assigns, executors, or successors upon terms and conditions deemed necessary or advantageous to the district and without receiving compensation for such abandonment or release. District property may also be abandoned, released, exchanged, or transferred to another district, municipality, county, countywide agency, or authority upon terms and conditions deemed necessary or advantageous to the district. Narrow strips of property resulting from boundary or

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surveying conflicts or similar causes, or from insubstantial encroachments by abutting property owners, or property of larger configuration that has been subject to encroachments by abutting property owners for more than 25 years may be abandoned, released, exchanged, or transferred to such abutting owners upon terms and conditions deemed necessary or advantageous to the district. Chapter 272, Local Government Code, does ~~[shall]~~ not apply to this section ~~[subsection]~~.

(c) Before either a public or a private sale of real property ~~[not required by the district]~~, the district shall give notice of the intent to sell by publishing notice once a week for two consecutive weeks in one or more newspapers with general circulation in the district.

(d) If the district has outstanding bonds secured by a pledge of tax revenues, the proceeds of the sale of property ~~[not required by the district]~~ shall be applied to retire outstanding bonds of the district ~~[when required by the district's applicable bond resolutions]~~.

(e) If the district does not have any outstanding bonds, the proceeds derived from the sale of real or [the] personal property ~~[or land not required by the district]~~ may be used for any lawful purpose.

SECTION 15. Subchapter H, Chapter 49, Water Code, is amended by adding Section 49.234 to read as follows:

Sec. 49.234. PROHIBITION OF CERTAIN PRIVATE ON-SITE FACILITIES. (a) A district or water supply corporation that operates a wastewater collection system to serve land within its boundaries by rule may prohibit the installation of private on-site wastewater holding or treatment facilities on land within the district that is not served by the district's or corporation's wastewater collection system. A district or corporation that has not received funding under Subchapter K, Chapter 17, may not require a property owner who has



already installed an on-site wastewater holding or treatment facility to connect to the district's or corporation's wastewater collection system.

(b) A district or water supply corporation that prohibits an installation described by Subsection (a) shall agree to pay the owner of a particular tract the costs of connecting the tract to the district's or corporation's wastewater collection system if the distance along a public right-of-way or utility easement from the nearest point of the district's or corporation's wastewater collection system to the boundary line of the tract requiring wastewater collection services is 300 feet or more, subject to commission rules regarding reimbursement of those costs.

SECTION 16. Subsection (c), Section 49.271, Water Code, is amended to read as follows:

(c) The district may adopt minimum criteria for the qualifications of bidders on its construction contracts and for sureties issuing payment and performance bonds. For construction contracts over \$25,000, the district shall require a person who bids to submit a certified or cashier's check on a responsible bank in the state equal to at least two percent of the total amount of the bid, or a bid bond of at least two percent of the total amount of the bid issued by a surety legally authorized to do business in this state, as a good faith deposit to ensure execution of the contract. If the successful bidder fails or refuses to enter into a proper contract with the district, or fails or refuses to furnish the payment and performance bonds [~~bond~~] required by law, the bidder forfeits the deposit. The payment, performance, and bid bonding requirements of this subsection do not apply to a contract for the purchase of equipment, materials, or machinery not otherwise incorporated into a construction project.

SECTION 17. Subsections (i) and (j), Section 49.273, Water Code, are amended to read as follows:

(i) If changes in plans or specifications are necessary after the performance of the contract is begun, or if it is necessary to decrease or increase the quantity of  
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the work to be performed or of the materials, equipment, or supplies to be furnished, the board may approve change orders making the changes. The aggregate of the change orders may not increase the original contract price by more than 10 percent. Additional change [Change] orders [to contracts] may be issued only as a result of unanticipated conditions encountered during construction, repair, or renovation or changes in regulatory criteria or to facilitate project coordination with other political entities.

(j) The board is not required to advertise or seek competitive bids for the repair of district facilities if the scope or extent of the repair work cannot be readily ascertained or if the nature of the repair work does not readily lend itself to competitive bidding [by the district's operator if the cost of the repair is less than or equal to the advertising requirements of this section].

SECTION 18. Subsection (a), Section 49.278, Water Code, is amended to read as follows:

(a) This subchapter does not apply to:

(1) equipment, materials, or machinery purchased by the district at an auction that is open to the public;

(2) contracts for personal or professional services or for a utility service operator;

(3) contracts made by a district engaged in the distribution and sale of electric energy to the public; ~~or~~

(4) contracts for services or property for which there is only one source or for which it is otherwise impracticable to obtain competition; or

(5) high technology procurements.

SECTION 19. Subchapter I, Chapter 49, Water Code, is amended by adding Section 49.279 to read as follows:

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Sec. 49.279. PREVAILING WAGE RATES. In addition to the alternative procedures provided by Section 2258.022, Government Code:

(1) a district located wholly or partially within one or more municipalities or within the extraterritorial jurisdiction of one or more municipalities may determine its prevailing wage rate for public works by adopting the prevailing wage rate of:

(A) one of the municipalities; or

(B) the county in which the district is located or, if the county in which the district is located has not adopted a wage rate, the prevailing wage rate of a county adjacent to the county in which the district is located; and

(2) a district not located wholly or partially within the extraterritorial jurisdiction of a municipality may determine the district's prevailing wage rate by adopting the prevailing wage rate of the county in which the district is located or, if the county in which the district is located has not adopted a wage rate, the wage rate of a county adjacent to the county in which the district is located.

SECTION 20. Subsection (b), Section 49.302, Water Code, is amended to read as follows:

(b) A petition requesting the annexation of a defined area signed by a majority in value of the owners of land in the defined area, as shown by the tax rolls of the central appraisal district of the county or counties in which such area is located, or signed by 50 landowners if the number of landowners is more than 50, shall describe the land by metes and bounds or by lot and block number if there is a recorded plat of the area and shall be filed with the secretary of the board.

SECTION 21. Subsection (a), Section 49.304, Water Code, is amended to read as follows:

(a) If the board determines that an exclusion hearing should be held as provided by Section 49.303(a) or (c), or if a written petition requesting an exclusion hearing is {00185659}

filed with the secretary of the board as provided by ~~the~~ Section 49.303(b) ~~[49.303]~~, the board shall give notice of the time and place of a hearing to announce its own conclusions relating to land or other property to be excluded and to receive petitions for exclusion of land or other property.

SECTION 22. Subchapter J, Chapter 49, Water Code, is amended by adding Section 49.315 to read as follows:

Sec. 49.315. ADDING AND EXCLUDING LAND BEFORE CONFIRMATION. (a) A district may add or exclude land in accordance with this subchapter:

(1) after a district is created by order of the commission or another governmental entity or by special Act of the legislature; and

(2) before a confirmation election is held as required by Section 49.102.

(b) If land is added or excluded as provided by this section, the election to confirm the district required by Section 49.102 shall be to confirm the district as modified.

SECTION 23. Section 49.351, Water Code, is amended by amending Subsections (a), (b), and (c) and (g) through (j) and adding Subsection (l) to read as follows:

(a) A district providing potable water or sewer service to household users may establish, operate, and maintain a fire department to perform all fire-fighting activities within the district as provided in this subchapter and may issue bonds or impose a mandatory fee, with voter approval, ~~[bonds]~~ for financing a plan approved in accordance with this section, ~~[the establishment of the fire department]~~ including the construction and purchase of necessary buildings, facilities, land, and equipment and the provision of an adequate water supply.

(b) After approval of the district electors of a plan to operate, ~~[or]~~ jointly operate, or jointly fund the operation of a fire department, and after complying with Subsections (g), (h), and (i), the district or districts shall provide an adequate system and water

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supply for fire-fighting purposes, may purchase necessary land, may construct and purchase necessary buildings, facilities, and equipment, and may employ or contract with a fire department to employ all necessary personnel including supervisory personnel to operate the fire department.

(c) Bonds ~~[issued]~~ for financing a plan approved in accordance with this section ~~[establishment of the fire department]~~ shall be authorized and may be issued, and a district shall be authorized to levy a tax to pay the principal of and interest on such bonds, as provided by law for authorization and issuance of other bonds of the district.

(g) A district or districts proposing to act jointly shall develop a detailed plan for the establishment, operation, and maintenance of the proposed department, including a detailed presentation of all financial requirements. If a district is entering into a contract under Subsection (e), the district shall develop a plan that describes ~~[in detail]~~ the contract and [facilities and equipment to be devoted to service to the district and all proposals for providing the service and that] includes a presentation of the financial requirements under the contract. A plan required by this subsection may be included in a plan or report otherwise required by this title for the creation of a district or may be submitted to the commission for approval at any time after the creation of the district. ~~[Before adoption of a plan and any contract by the district, the board shall hold a hearing at which any person residing in the district may present testimony for and against the proposed plan and any proposed contract. Notice of the hearing and the place at which the plan and any contract may be examined shall be posted in two public places within the district at least 10 days before the date of the hearing.]~~

(h) If a plan was not approved by the commission at the time of the district's creation, after ~~[After]~~ adoption of the plan and any contract by the board, the plan and financial presentation, together with any contract and a written report in a form prescribed by the executive director describing existing fire departments and fire-fighting services available within 25 miles of the boundaries of the district, shall be submitted to the executive director for

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consideration by the commission under rules adopted by the commission. ~~[Before approval or disapproval, the commission shall hold a hearing. Notice of the hearing before the commission shall be posted by the board in at least two public places in the district at least five days before the hearing.]~~ Before the commission approves the application, it must find that it is economically feasible for the district to implement the plan and meet the provisions of any contract and shall take into consideration in giving its approval the general financial condition of the district and the economic feasibility of the district carrying out the plan or meeting the obligations of the contract. A plan approved by the commission as part of the creation of a district does not require further commission approval unless the district materially alters the plan.

(i) After approval of a plan by the commission, the district shall submit to the electors of the district at the election to approve bonds or to impose a mandatory fee for financing the plan, or if no bonds or fees are to be approved, at an election called for approval of the plan, which may be held in conjunction with an election required by Section 49.102, the proposition of whether or not the plan should be implemented or entered into by the district. The ballots at the election shall be printed, as applicable, to provide for voting for or against the proposition: "The implementation of the plan for (operation/joint operation) of a fire department"; or "The plan and contract to provide fire-fighting services for the district."

(j) ~~[No funds of the district may be used to establish a fire department, to enter into joint operation of a fire department, or to contract for fire-fighting services without the approval of a plan by the electors as provided in this section. However, the district may use available funds for preparation of a plan and any contract.]~~ The operation of a fire department or provision of fire-fighting services is an essential public necessity, and a district may discontinue any and all services, including water and sewer service, to any person who fails to timely pay fire department service fees or any other assessment adopted by the district to support the fire department or the provision of fire-fighting services.

(l) Notwithstanding the requirements of Subsections (a)-(j), a district providing potable water or sewer service to household users may as part of its billing process collect from its customers a voluntary contribution on behalf of organizations providing fire-fighting activities to the district. A district that chooses to collect a voluntary contribution under this subsection must give reasonable notice to its customers that the contribution is voluntary. Water and sewer service may not be terminated as a result of failure to pay the voluntary contribution.

SECTION 24. Chapter 49, Water Code, is amended by adding Subchapter N to read as follows:

SUBCHAPTER N. RECREATIONAL FACILITIES

Sec. 49.461. POLICY AND PURPOSE. (a) The legislature finds that:

(1) the provision of parks and recreational facilities is necessary and desirable for the health and well-being of the people of this state;

(2) it is the policy of the state and the purpose of this subchapter to encourage persons in districts to provide parks and recreational facilities for their use and benefit;

(3) within constitutional limitations, the power to enact laws vested in the legislature by Section 1, Article III, Texas Constitution, is supreme;

(4) there is no constitutional inhibition that would prohibit the legislature from authorizing districts to acquire, own, develop, construct, improve, manage, operate, and maintain parks and recreational facilities; and

(5) the general legislative power alone is adequate to support the enactment of this subchapter without reference to any specific constitutional authorization.

(b) This subchapter provides complete authority to a district to develop and maintain recreational facilities.

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Sec. 49.462. DEFINITIONS. In this subchapter:

(1) "Recreational facilities" means parks, landscaping, parkways, greenbelts, sidewalks, trails, public right-of-way beautification projects, and recreational equipment and facilities. The term includes associated street and security lighting.

(2) "Develop and maintain" means to acquire, own, develop, construct, improve, manage, maintain, and operate.

Sec. 49.463. AUTHORIZATION OF RECREATIONAL FACILITIES. In addition to the other purposes for which a district is created, a district is created for the purpose of developing and maintaining recreational facilities for the people in the district. A district may accomplish this purpose as provided in this subchapter.

Sec. 49.464. ACQUISITION OF AND PAYMENT FOR RECREATIONAL FACILITIES. (a) A district may not issue bonds supported by ad valorem taxes to pay for the development and maintenance of recreational facilities.

(b) Except as provided by Subsection (a), a district may acquire recreational facilities and obtain funds to develop and maintain them in the same manner as authorized elsewhere in this code for the acquisition, development, and maintenance of other district facilities. A district may charge fees directly to the users of recreational facilities and to water and wastewater customers of the district to pay for all or part of the cost of their development and maintenance. To enforce payment of an unpaid fee charged under this subsection, the district may:

(1) seek legal restitution of the unpaid fee; and

(2) refuse use of a recreational facility to the person who owes the unpaid fee.

(c) The district may not refuse use of facilities or services other than recreational facilities to enforce an unpaid fee.



Sec. 49.465. STANDARDS. The board by rule shall establish standards for recreational facilities to be developed and maintained by a district and for the allocation of a district's funds for developing and maintaining recreational facilities in relation to a district's financial requirements for other purposes. To prevent duplication of recreational facilities provided by other governmental entities, rules adopted by the board under this section must require a district, before developing recreational facilities, to make findings that the size and location of the facilities have been established in consideration of municipal or county recreational facilities, whether existing or proposed, that serve or will serve the area in which the district is located.

SECTION 25. Subsection (a), Section 51.013, Water Code, is amended to read as follows:

(a) A petition requesting creation of a district shall be signed by a majority of the persons who hold title to land in the proposed district which represents a total value of more than 50 percent of the value of all the land in the proposed district as indicated by the [county] tax rolls of the central appraisal district. If there are more than 50 persons holding title to land in the proposed district, the petition is sufficient if signed by 50 of them.

SECTION 26. Subchapter D, Chapter 51, Water Code, is amended by adding Section 51.122 to read as follows:

Sec. 51.122. ADOPTING RULES AND REGULATIONS. A district may adopt and enforce reasonable rules and regulations to:

(1) secure and maintain safe, sanitary, and adequate plumbing installations, connections, and appurtenances as subsidiary parts of the district's sanitary sewer system;

(2) preserve the sanitary condition of all water controlled by the district;

(3) prevent waste or the unauthorized use of water controlled by the district;

(4) regulate privileges on any land or any easement owned or controlled by the district; or

(5) provide and regulate a safe and adequate freshwater distribution system.

SECTION 27. Chapter 51, Water Code, is amended by adding Subchapter E to read as follows:

SUBCHAPTER E. ENFORCEMENT

Sec. 51.221. PENALTY FOR VIOLATION OF REGULATION. A person who violates a regulation adopted by a district under this chapter or other law commits an offense. An offense under this section is a Class C misdemeanor.

SECTION 28. Section 53.021, Water Code, is amended to read as follows:

Sec. 53.021. OFFICERS TO BE ELECTED. In the election, five supervisors [~~and the tax assessor and collector~~] are elected.

SECTION 29. Section 54.014, Water Code, is amended to read as follows:

Sec. 54.014. PETITION. When it is proposed to create a district, a petition requesting creation shall be filed with the commission. The petition shall be signed by a majority in value of the holders of title of the land within the proposed district, as indicated by the [~~county~~] tax rolls of the central appraisal district. If there are more than 50 persons holding title to the land in the proposed district, as indicated by the [~~county~~] tax rolls of the central appraisal district, the petition is sufficient if it is signed by 50 holders of title to the land.

SECTION 30. Section 54.236, Water Code, is amended to read as follows:  
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Sec. 54.236. Street or Security Lighting. Subject to the provisions of this section, a district may purchase, install [~~accept~~], operate, and maintain street lighting or security lighting within public utility easements or public rights-of-way within the boundaries of the district. [~~Such street or security lighting facilities must have been constructed by an owner or developer of property within the district and must have been required by a city as a condition to the city granting its consent to the creation of the district pursuant to Section 54.016 of this code.~~] A district may not issue bonds supported by ad valorem taxes to pay for the purchase, installation, [development] and maintenance of street or security lighting.

SECTION 31. Subdivision (1), Section 54.772, Water Code, is amended to read as follows:

(1) "Recreational facilities" means parks, landscaping, parkways, greenbelts, sidewalks, trails, public right-of-way beautification projects, and recreational equipment and facilities. The term includes associated street and security lighting.

SECTION 32. Subsection (a), Section 54.774, Water Code, is amended to read as follows:

(a) A district may not issue bonds supported by ad valorem taxes to pay for the development and maintenance of recreational facilities.

SECTION 33. Subsection (a), Section 57.092, Water Code, is amended to read as follows:

(a) The district may enter into all necessary and proper contracts and employ all persons and means necessary to purchase, acquire, build, construct, complete, carry out, maintain, protect, and, in case of necessity, add to and rebuild all works and improvements [~~within the district~~] necessary or proper to fully accomplish a reclamation plan lawfully adopted for the district.

SECTION 34. Subchapter D, Chapter 57, Water Code, is amended by adding Section 57.093 to read as follows:  
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Sec. 57.093. ADOPTING RULES AND REGULATIONS. A district may adopt and enforce reasonable rules and regulations to:

(1) preserve the sanitary condition of all water controlled by the district;

(2) prevent waste or the unauthorized use of water controlled by the district;

(3) regulate privileges on any land or any easement owned or controlled by the district;

(4) regulate the design and construction of improvements and facilities that outfall, connect, or tie into district improvements and facilities; or

(5) require the district's review and approval of drainage plans for property within the district.

SECTION 35. Subchapter B, Chapter 101, Civil Practice and Remedies Code, is amended by adding Section 101.0211 to read as follows:

Sec. 101.0211. NO LIABILITY FOR JOINT ENTERPRISE. The common law doctrine of vicarious liability because of participation in a joint enterprise does not impose liability on a water district created pursuant to either Sections 52(b)(1) and (2), Article III, or Section 59, Article XVI, Texas Constitution, regardless of how created, for a claim brought under this chapter.

SECTION 36. Subchapter B, Chapter 402, Local Government Code, is amended by adding Section 402.0205 to read as follows:

Sec. 402.0205. REVENUE BONDS TO PAY FOR DISTRICT SERVICES UNDER CONTRACT. (a) In this section, "district" has the meaning assigned by Section 49.001, Water Code.

(b) If a district contracts with a municipality to provide all or part of the water or wastewater services to the municipality, the municipality may issue bonds payable  
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from the revenues of its water and wastewater system to provide funds to make payments owed by the municipality to the district under the contract.

SECTION 37. Subchapter Z, Chapter 402, Local Government Code, is amended by adding Section 402.908 to read as follows:

Sec. 402.908. SALE OF WATER OR SEWER SYSTEM. A municipality, without an election, may sell to a water district operating under the authority of Section 59, Article XVI, Texas Constitution, a water or sewer system owned by the municipality.

SECTION 38. Subchapter Z, Chapter 402, Local Government Code, is amended by adding Section 402.909 to read as follows:

Sec. 402.909. PROHIBITED EMPLOYMENT OF OR CONTRACTING WITH FORMER TRUSTEE OR BOARD MEMBER. (a) This section applies to a municipality that creates a board of trustees or other board to manage and control a water, wastewater, storm water, or drainage utility system that the municipality owns.

(b) The municipality or a board of trustees or other board described by Subsection (a) may not employ or contract with an individual who was a member of the board before the second anniversary of the date the individual ceased to be a member of the board.

SECTION 39. Subsections (a) and (b), Section 4.03, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, are amended to read as follows:

(a) The authority may establish fees, rates, and charges, and classifications of fee and rate payers, as necessary to enable the authority to fulfill the authority's purposes and regulatory obligations provided by this Act.

(b) The authority may charge against the owner of a well located in the authority's boundaries a fee on the amount of water pumped from the well. The board shall establish the rate of a fee under this subsection only after a special meeting on the fee. The board shall by rule exempt from the fee under this subsection those classes of wells that are not subject to groundwater reduction requirements imposed by the subsidence district, except that if any of

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those classes of wells become subject at a future date to a groundwater reduction requirement imposed by the subsidence district, then the authority may after that date charge the fee under this subsection to those affected classes of wells. The board by rule may exempt any other classes of wells from the fee under this subsection. The board may not apply the fee to a well:

(1) with a casing diameter of less than five inches that serves a single-family dwelling;

(2) regulated under Chapter 27, Water Code;

(3) used for irrigation of agricultural crops; or

(4) ~~that produces 10 million gallons or less annually; or~~

~~(5)~~ used solely for electric generation.

SECTION 40. Subsection (a), Section 4.06, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:

(a) The authority may:

(1) acquire and provide by purchase, gift, ~~or~~ lease, contract, or any other legal means, a water treatment or supply system, or any other works, plants, improvements, or facilities necessary or convenient to accomplish the purposes of the authority, or any interest in those assets, inside of or outside of the authority's boundaries;

(2) design, finance, or construct a water treatment or supply system, or any other supply systems, or any other works, plants, improvements, or facilities necessary or convenient to accomplish the purposes of the authority, and provide water services inside of or outside of the authority's boundaries;

(3) maintain, operate, lease, or sell a water treatment or supply system, or any other works, plants, improvements, or facilities necessary or convenient to accomplish the purposes of the authority, that the authority constructs or acquires inside of or outside of the authority's boundaries; and

(4) contract with any person to operate or maintain a water treatment or supply system the person owns.

SECTION 41. Sections 53.024, 57.152, and 57.153, Water Code, are repealed.

SECTION 42. (a) In this section "district" means a conservation and reclamation district created under Section 52, Article III, and Section 59, Article XVI, Texas Constitution.

(b) The following are validated and confirmed in all respects:

(1) the creation of a district and all proceedings related to the creation of the district, effective as of the date on which the creation or related proceedings occurred; and

(2) any act or proceeding of a district, including an election, not excepted by this section and taken not more than two years before the effective date of this Act, effective as of the date on which the act or proceeding occurred.

(c) Subsection (b) of this section does not apply to:

(1) an act, proceeding, director, other official, bond, or other obligation the validity of which or of whom is the subject of litigation that is pending on the effective date of this Act; or

(2) a governmental act or proceeding that, under the law of this state at the time the act or proceeding occurred, was a misdemeanor or a felony.

SECTION 43. This Act takes effect immediately if it receives a vote of two-thirds of all the members elected to each house, as provided by Section 39, Article III, Texas Constitution. If this Act does not receive the vote necessary for immediate effect, this Act takes effect September 1, 2001.

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President of the Senate

Speaker of the House

I hereby certify that S.B. No. 1444 passed the Senate on April 23, 2001, by the following vote: Yeas 29, Nays 0, one present not voting; May 18, 2001, Senate refused to concur in House amendments and requested appointment of Conference Committee; May 21, 2001, House granted request of the Senate; May 26, 2001, Senate adopted Conference Committee Report by the following vote: Yeas 30, Nays 0, one present not voting.

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Secretary of the Senate

I hereby certify that S.B. No. 1444 passed the House, with amendments, on May 15, 2001, by the following vote: Yeas 139, Nays 0, two present not voting; May 21, 2001, House granted request of the Senate for appointment of Conference Committee; May 26, 2001, House adopted Conference Committee Report by the following vote: Yeas 143, Nays 0, two present not voting.

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Chief Clerk of the House

Approved:

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Date

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Governor

{00185659}



AN ACT

relating to the North Harris County Regional Water Authority.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Subsection (d), Section 1.03, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:

(d) Except to the extent the authority agrees in writing, a municipality's annexation of territory within the authority has no effect on the authority's ability to assess and collect inside the territory annexed by the municipality the types of fees, rates, charges, or special assessments that the authority was assessing and collecting at the time the municipality initiated the annexation; provided, however, that the authority's ability to assess and collect such fees, rates, charges, or special assessments shall terminate on the later to occur of (i) the date of final payment or defeasance of any bonds or other indebtedness, including any refunding bonds, that are secured by such fees, rates, charges, or special assessments, or (ii) the date that the authority no longer provides services inside the annexed territory. [~~On a municipality's annexation of any of the authority's territory, the annexed territory is excluded from the authority's territory.~~] The authority shall continue to provide services to the annexed territory in accordance with contracts in effect at the time of the annexation unless a written agreement between the board and the governing body of the municipality provides otherwise.

SECTION 2. Subsection (c), Section 2.02, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:

(c) In the manner described by Section 49.103(d), Water Code, the board shall redraw

{00185659}

the single-member voting districts as required by law as soon as practicable after:

(1) each federal decennial census; and

(2) any change in the boundaries of the authority which increases the total area of the authority by more than 20 percent.

SECTION 3. Section 4.10, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Subsection (d) to read as follows:

(d) Notwithstanding any inconsistent provision of general law or of a home-rule municipal charter or ordinance, the authority and a municipality may enter into a contract of unlimited duration.

SECTION 4. Subsections (a) and (c), Section 5.05, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, are amended to read as follows:

(a) The authority may ~~shall~~ develop a procedure for cooperatively funding a project of the authority with money from other political subdivisions located entirely ~~[districts]~~ inside ~~[of]~~ the authority's boundaries, and may develop a procedure for cooperatively funding a project of the authority with money from political subdivisions located in whole or in part outside the authority's boundaries, water supply corporations, or other private entities, if the authority project fulfills a governmental purpose of both the authority and other political subdivisions, or fulfills a governmental purpose of the authority that the authority determines would be furthered by cooperative funding from a private entity ~~[districts]~~.

(c) A political subdivision ~~[district]~~ may enter into a contract with the authority for the political subdivision ~~[district]~~ to finance a portion of the proposed project with the political subdivision's ~~[district's]~~ resources instead of using only the proceeds from bonds of the authority

for that purpose. The contract must be executed before the authority issues the bonds. As provided in the contract, the authority may [~~must~~]:

(1) reduce the value of the bond issuance to the degree that the political subdivision [~~district~~] provides project funding; and

(2) credit the political subdivision [~~district~~] for its contribution to the project financing and adjust the allocation of revenue pledged to the payment of the bonds so that the authority avoids using, to a degree reasonably commensurate with the contribution, revenue from the political subdivision [~~district~~] to service the authority's bond debt or interest.

SECTION 5. Subsection (b), Section 5.05, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is repealed.

SECTION 6. The change in law made by Subsection (d), Section 4.10, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, as added by this Act, applies only to a contract between the North Harris County Regional Water Authority and a municipality that was entered into after January 1, 2002.

SECTION 7. This Act takes effect immediately if it receives a vote of two-thirds of all the members elected to each house, as provided by Section 39, Article III, Texas Constitution. If this Act does not receive the vote necessary for immediate effect, this Act takes effect September 1, 2003.

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President of the Senate

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Speaker of the House

I hereby certify that S.B. No. 1725 passed the Senate on May 1, 2003, by the following vote: Yeas 31, Nays 0; and that the Senate concurred in House amendments on May 30, 2003, by the following vote: Yeas 31, Nays 0.

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Secretary of the Senate

I hereby certify that S.B. No. 1725 passed the House, with amendments, on May 28, 2003, by the following vote: Yeas 144, Nays 0, two present not voting.

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Chief Clerk of the House

Approved:

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Date

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Governor

**2005 79(R) H.B. No. 1208**

**Amendment**

\*Relevant sections highlighted in yellow\*

AN ACT

relating to a limitation on the use of eminent domain by certain conservation and reclamation districts.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Subchapter D, Chapter 54, Water Code, is amended by adding Section 54.209 to read as follows:

Sec. 54.209. LIMITATION ON USE OF EMINENT DOMAIN. A district may not exercise the power of eminent domain outside the district boundaries to acquire:

(1) a site for a water treatment plant, water storage facility, wastewater treatment plant, or wastewater disposal plant;

(2) a site for a park, swimming pool, or other recreational facility except a trail;

(3) a site for a trail on real property designated as a homestead as defined by Section 41.002, Property Code; or

(4) an exclusive easement through a county regional park.

**SECTION 2. Section 4.08, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Subsection (f) to read as follows:**

**(f) Section 54.209, Water Code, does not apply to the district.**

SECTION 3. The change in law made by this Act does not affect an eminent domain action initiated before the effective date of this Act. Such an action is governed by the law in effect when the action was initiated, and the former law is continued in effect for that purpose.

SECTION 4. This Act takes effect immediately if it receives a vote of two-thirds of all the members elected to each house, as provided by Section 39, Article III, Texas Constitution. If this Act does not receive the vote necessary for immediate effect, this Act takes effect September 1, 2005.

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President of the Senate

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Speaker of the House

I certify that H.B. No. 1208 was passed by the House on May 4, 2005, by the following vote: Yeas 142, Nays 1, 1 present, not voting; and that the House concurred in Senate amendments to H.B. No. 1208 on May 26, 2005, by the following vote: Yeas 143, Nays 0, 2 present, not voting.

---

Chief Clerk of the House

I certify that H.B. No. 1208 was passed by the Senate, with amendments, on May 23, 2005, by the following vote: Yeas 31, Nays 0.

---

Secretary of the Senate

APPROVED: \_\_\_\_\_

Date

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Governor

**2005 79(R) S.B. No. 331  
Amendment**

AN ACT

relating to the powers and duties of the North Harris County Regional Water Authority.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Subsection (c), Section 2.02, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:

(c) In the manner described by Section 49.103(d), Water Code, the board shall redraw the single-member voting districts [~~as required by law~~] as soon as practicable after[=

[~~(4)~~] each federal decennial census[;] and as otherwise required by law

[~~(2) any change in the boundaries of the authority which increases the total area of the authority by more than 20 percent~~].

SECTION 2. Section 4.10, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Subsections (e) through (k) to read as follows:

(e) The authority may expedite the financing and construction of a surface water delivery system, or other projects of the authority to accomplish a conversion from reliance on groundwater to reliance on surface water not later than the earlier of:

(1) the date required by the subsidence district; or

(2) the date determined by the board to be in the interest of the authority or one or more districts inside or outside the authority.

(f)(1) In this section, "surface water delivery system" includes a facility that is to be constructed and that will be:



(A) used to transport groundwater between utility districts;

(B) used temporarily to transport groundwater between utility districts if there is a reasonable probability that the facility will be used for that purpose on a permanent basis in the future; or

(C) necessary to accomplish an authority purpose, including management of water, water conservation, or water reuse.

(2) For purposes of Subsections (e)-(k), "surface water delivery system" does not include the use of the bed and banks to transport water or wastewater.

(g) It is the intent of the legislature that the commission cooperate with and assist the authority in developing a surface water delivery system or other authority project in an expedited manner as provided by Subsection (e). The commission may grant conditional approval of a construction project or waive a requirement of any law or commission rule with respect to a construction project, if the conditional approval or waiver does not compromise public health or safety.

(h) If the commission grants conditional approval of or a waiver for a construction project, the authority shall make any subsequent changes in the construction project necessary to protect the public health or safety that the commission requires.

(i) The commission may not require as a condition for approving an authority construction project that the authority enter into a contract with another person. The authority may meet its obligations under commission rules that require that certain issues be addressed by contract by adopting rules that address those issues and that allocate responsibility as necessary between the authority and a district or person within the boundaries of the authority.

(j) The commission and the authority may enter into a memorandum of understanding that relates to the construction of a surface water delivery system. The memorandum of understanding may:

(1) establish standard procedures for the commission to grant conditional or final approval of authority construction projects;

(2) establish standing waivers or conditions applicable to those construction projects;

(3) if the delegation does not violate federal law and is not inconsistent with any agreement of this state with, or any delegation of authority to this state from, the United States Environmental Protection Agency, delegate powers to the authority to carry out any commission duty relating to an activity that the authority may undertake;

(4) set minimum standards for construction or other projects; or

(5) address any other matter that relates to an activity that the authority may undertake and that the commission may regulate.

(k) To comply with commission rules that would require the authority to state specific amounts of water that may or will be provided to another entity receiving water from the authority, the authority may state the amount in ranges that the authority may change on prompt notification to the commission.

SECTION 3. Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Section 5.01A to read as follows:

Sec. 5.01A. ANTICIPATION NOTES AND BONDS. (a) The board may issue negotiable revenue anticipation notes or negotiable bond anticipation notes to borrow the money

needed by the authority without advertising or giving notice of the sale. The board may also issue negotiable combination revenue and bond anticipation notes. Negotiable combination revenue and bond anticipation notes may contain any term authorized under this section for revenue anticipation notes or bond anticipation notes. Any note issued must mature not later than one year after its date of issuance.

(b) A revenue anticipation note may be issued to enable the authority to carry out any purpose authorized by this Act. A revenue anticipation note must be secured by the proceeds of revenues to be collected by the authority in the 12-month period following the date of issuance of the note. The board may covenant with the purchasers of the notes that the board will charge and collect sufficient revenues to pay the principal of and interest on the notes and pay the cost of collecting the revenues.

(c) A bond anticipation note may be issued for any purpose for which a bond of the authority may be issued or to refund previously issued revenue or bond anticipation notes. The authority may covenant with the purchasers of the bond anticipation notes that the authority will use the proceeds of the sale of any bonds in the process of issuance for the purpose of refunding the bond anticipation notes, in which case the board shall use the proceeds received from the sale of the bonds in the process of issuance to pay the principal, interest, or redemption price on the bond anticipation notes.

(d) For purposes of Section 1202.007, Government Code, a note issued under this section is considered to be payable only out of:

- (1) current revenues collected in the year the note is issued; or
- (2) the proceeds of other public securities.

SECTION 4. This Act takes effect immediately if it receives a vote of two-thirds of all the members elected to each house, as provided by Section 39, Article III, Texas Constitution. If this Act does not receive the vote necessary for immediate effect, this Act takes effect September 1, 2005.

\_\_\_\_\_  
President of the Senate

\_\_\_\_\_  
Speaker of the House

I hereby certify that S.B. No. 331 passed the Senate on April 14, 2005, by the following vote: Yeas 31, Nays 0; and that the Senate concurred in House amendment on May 27, 2005, by the following vote: Yeas 29, Nays 0.

\_\_\_\_\_  
Secretary of the Senate

I hereby certify that S.B. No. 331 passed the House, with amendment, on May 25, 2005, by the following vote: Yeas 144, Nays 0, two present not voting.

\_\_\_\_\_  
Chief Clerk of the House

Approved:

\_\_\_\_\_  
Date

\_\_\_\_\_  
Governor

{00185659}

**2011 82(R) H.B. No. 2418  
Amendment**

AN ACT

relating to the territory, board of directors, and powers of the North Harris County Regional Water Authority.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Section 1.03, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by amending Subsection (b) and adding Subsections (b-1), (b-2), (f), (g), and (h) to read as follows:

(b) The authority includes the ~~[only that]~~ territory described by Subsection (a) of this section only if that territory is also in one or more of the following state representative districts as described by Article II, Chapter 2, Acts of the 72nd Legislature, 3rd Called Session, 1992 (Article II, Article 195a-11, Vernon's Texas Civil Statutes), as the districts existed on the effective date of this Act:

- (1) District 127;
- (2) District 126;
- (3) District 130;
- (4) District 135; and
- (5) District 150.

(b-1) The authority also includes the territory of the following districts:

- (1) Harris County Municipal Utility District No. 16;
- (2) Harris County Municipal Utility District No. 26;

(3) Harris County Municipal Utility District No. 233;

(4) Richey Road Municipal Utility District;

(5) Harris County Water Control and Improvement District No. 109;

(6) Inverness Forest Improvement District; and

(7) Memorial Hills Utility District.

(b-2) The territory of the authority does not include property that lies within the boundaries of a local government, other than the authority, if:

(1) the local government had a groundwater reduction plan approved by the subsidence district before January 1, 2010; and

(2) the property was included in the local government's approved groundwater reduction plan on January 1, 2010.

(f) Territory annexed by a local government located in the authority becomes territory of the authority on the effective date of the annexation, unless the annexed territory is included in another local government's approved groundwater reduction plan as of the effective date of the annexation. The authority by rule may require the local government to send to the authority:

(1) written notice of the effective date of an annexation; and

(2) copies of documents describing the annexed land and describing the new boundaries of the local government.

(g) If territory is added to the service area of a person owning a water system located in the authority, the territory becomes territory of the authority on the effective date of the territory's addition to the service area, unless the added territory is included in another local government's approved groundwater reduction plan as of the effective date of the addition. The

authority by rule may require the person to send to the authority:

(1) written notice of the effective date of an addition of territory; and

(2) copies of documents describing the added territory and describing the new

boundaries of the person's service area.

(h) The annexation or addition of territory to the authority under this section does not affect the validity of bonds issued by the authority.

SECTION 2. Section 1.05, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Subsection (c) to read as follows:

(c) The following laws do not apply to the authority:

(1) Chapter 36, Water Code;

(2) Section 49.052, Water Code; and

(3) Sections 49.451-49.455, Water Code.

SECTION 3. Section 2.03, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:

Sec. 2.03. SERVICE OF DIRECTORS. Directors ~~[(a) Temporary directors serve until the initial permanent directors are elected under Section 2.05 of this Act.~~

~~[(b) The initial permanent directors serve until permanent directors are elected under Section 2.06 of this Act.~~

~~[(c) Permanent directors] serve staggered four-year terms.~~

~~[(d) A director serves until the director's successor has qualified.]~~

SECTION 4. The heading to Section 4.04, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:

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Sec. 4.04. CIVIL PENALTY; CIVIL ACTION; INJUNCTION.

SECTION 5. Section 4.04, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Subsections (b-1) and (e) to read as follows:

(b-1) The authority may bring an action in a district court against a district, other political subdivision, or other person located in the authority's territory or included in the authority's groundwater reduction plan to:

(1) recover any fees, rates, charges, assessments, collection expenses, attorney's fees, interest, penalties, or administrative penalties due the authority; or

(2) enforce the authority's rules or orders.

(e) Governmental immunity from suit or liability of a district or other political subdivision is waived for the purposes of an action described by Subsection (b-1) of this section.

SECTION 6. The following sections of Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, are repealed:

(1) Section 2.04;

(2) Section 2.05; and

(3) Section 2.07.

SECTION 7. (a) The legal notice of the intention to introduce this Act, setting forth the general substance of this Act, has been published as provided by law, and the notice and a copy of this Act have been furnished to all persons, agencies, officials, or entities to which they are required to be furnished under Section 59, Article XVI, Texas Constitution, and Chapter 313, Government Code.

(b) The governor, one of the required recipients, has submitted the notice and Act to the



Texas Commission on Environmental Quality.

(c) The Texas Commission on Environmental Quality has filed its recommendations relating to this Act with the governor, the lieutenant governor, and the speaker of the house of representatives within the required time.

(d) All requirements of the constitution and laws of this state and the rules and procedures of the legislature with respect to the notice, introduction, and passage of this Act are fulfilled and accomplished.

SECTION 8. This Act takes effect immediately if it receives a vote of two-thirds of all the members elected to each house, as provided by Section 39, Article III, Texas Constitution. If this Act does not receive the vote necessary for immediate effect, this Act takes effect September 1, 2011.

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President of the Senate

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Speaker of the House

I certify that H.B. No. 2418 was passed by the House on April 7, 2011, by the following vote: Yeas 144, Nays 0, 1 present, not voting.

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Chief Clerk of the House

I certify that H.B. No. 2418 was passed by the Senate on May 19, 2011, by the following vote: Yeas 31, Nays 0.

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Secretary of the Senate

APPROVED: \_\_\_\_\_

Date

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Governor

**2013 83(R) H.B. No. 3934  
Amendment**

AN ACT

relating to powers of the North Harris County Regional Water Authority relating to certain wells.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Section 4.03, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Subsection (e) to read as follows:

(e) Notwithstanding any other law, the authority may impose a charge under Subsection (b) on a well or class of wells located within the boundaries of the authority that, on or after June 30, 2013:

(1) ceases to be subject to a groundwater reduction requirement imposed by the subsidence district; or

(2) is no longer subject to the regulatory provisions, permitting requirements, or jurisdiction of the subsidence district.

SECTION 2. The North Harris County Regional Water Authority retains all rights, powers, privileges, authorities, duties, and functions that it had before the effective date of this Act.

SECTION 3. (a) The legislature validates and confirms all governmental acts and proceedings of the North Harris County Regional Water Authority that were taken before the effective date of this Act.

(b) This section does not apply to any matter that on the effective date of this Act:

(1) is involved in litigation if the litigation ultimately results in the matter being

held invalid by a final court judgment; or

(2) has been held invalid by a final court judgment.

SECTION 4. (a) The legal notice of the intention to introduce this Act, setting forth the general substance of this Act, has been published as provided by law, and the notice and a copy of this Act have been furnished to all persons, agencies, officials, or entities to which they are required to be furnished under Section 59, Article XVI, Texas Constitution, and Chapter 313, Government Code.

(b) The governor, one of the required recipients, has submitted the notice and Act to the Texas Commission on Environmental Quality.

(c) The Texas Commission on Environmental Quality has filed its recommendations relating to this Act with the governor, the lieutenant governor, and the speaker of the house of representatives within the required time.

(d) All requirements of the constitution and laws of this state and the rules and procedures of the legislature with respect to the notice, introduction, and passage of this Act are fulfilled and accomplished.

SECTION 5. This Act takes effect immediately if it receives a vote of two-thirds of all the members elected to each house, as provided by Section 39, Article III, Texas Constitution. If this Act does not receive the vote necessary for immediate effect, this Act takes effect September 1, 2013.

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President of the Senate

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Speaker of the House

I certify that H.B. No. 3934 was passed by the House on May 10, 2013, by the following vote: Yeas 142, Nays 1, 2 present, not voting.

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Chief Clerk of the House

I certify that H.B. No. 3934 was passed by the Senate on May 22, 2013, by the following vote: Yeas 31, Nays 0.

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Secretary of the Senate

APPROVED: \_\_\_\_\_

Date

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Governor

{00185659}

# General Information

County: Harris

Name of Entity: North Harris Co Regional WA

#### System Contact Physical Address

Address 1: 3648 Cypress Creek Pkwy

Address 2: Suite 110

City: Houston

State: TX

Zip: 77068-3609

Phone: (281) 440-3924

Fax: (281) 440-4104

Website: [www.nhcrwa.com](http://www.nhcrwa.com)

#### System Contact Mailing Address

Address 1: 3648 Cypress Creek Pkwy

Address 2: Suite 110

City: Houston

State: TX

Zip: 77068-3609

## Description

Brief description of the project: NHCRWA Transmission Line (Second Source Line)

## Officers/Members

#### Applicant's Officers and Members

Alan J. Rendl

President, Director of District 4

James D. Pulliam

Treasurer, Director of District 3

Lenox A. Sigler

Secretary, Director of District 2

Kelly P. Fessler

Vice President, Director of District 5

Ron Graham  
Assistant Secretary, Director of District 1

Jimmie Schindewolf, P.E.  
General Manager

## Primary Contact

Name: Mark Evans  
Title: Planning and Governmental Affairs Direct  
Address 1: 3648 Cypress Creek Parkway  
Address 2: Suite 110  
City: Houston  
State: TX  
Zip: 77068-3609  
Phone: (281) 440-3924  
Fax: (281) 440-4104  
Email: mevans@nhcrwa.com

## Applicant's Contributors

Contributor Type	Firm Name	Contact Name	Address	Phone	Fax	Email
Applicant Engineer	AECOM Technical Services, Inc.	Tom Rolen, P.E.	5444 Westheimer Rd., Suite 200 Houston TX 77056-5350	713-780-4100	713-267-2805	tom.rolen@aecom.com
Bond Counsel	Andrews Kurth LLP	Jerry V. Kyle, Jr.	111 Congress Avenue, Suite 1700 Austin TX 78701-4069	512-320-9271	512-542-5211	jerrykyle@andrewskurth.com
Financial Advisor	The GMS Group, L.L.C.	John Howell	5075 Westheimer, Suite 1175 Houston TX 77056-5675	713-626-3552	713-626-3347	jhowell@gmsgroup.com
Certified Public Accountant (or other appropriate rep)	North Harris County Regional Water Autho	Cyndi Plunkett	3648 Cypress Creek Parkway, Suite 110 Houston TX 77068-3609	281-440-3924	281-440-4104	cyndi@nhcrwa.com

Legal Counsel	Radcliffe Bobbitt Adams Polley PLLC	Jonathan D. Polley	2929 Allen Parkway, Suite 3450 Houston TX 77019-7120	713-237-1221	713-237-1313	jpollley@rbaplaw.com
Any other Contributor representing the Applicant before the board	Freese and Nichols, Inc.	Michael V. Reedy, P.E.	10497 Town and Country Way, Suite 600 Houston TX 77024-1133	713-600-6828	713-600-6801	mvr@freese.com
Any other Contributor representing the Applicant before the board	RBC Capital Markets	Gene Shepherd	1001 Fannin Street, Suite 1200 Houston TX 77002-6742	713-651-3338	713-651-3348	Eugene.shepherd@rbccm.com

Contributor Contracts (documents follow this page)

327274

Application Engineer

327275

Bond Counsel

327276

Financial Advisor

327277

Certified Public Accountant

327278

Legal Counsel

327279

Engineer

327280

Financial Advisor



Agreement between North Harris County Regional Water Authority

and

Turner Collie & Braden, Inc.



Jimmie Schindewolf, P.E.  
*General Manager*

February 7, 2003

**BOARD OF DIRECTORS**  
Lenox A. Sigler, *President*  
James D. Pulliam, *Vice President*  
Ron Graham, *Secretary*  
Alan J. Rendt, *Asst. Secretary*  
Kelly P. Fessler, *Treasurer*

Mr. Min Chu, P.E.  
Senior Vice President  
Turner, Collier & Braden Inc.  
P.O. Box 130089  
Houston, Texas 77219

Re: Transmittal of Agreement For Professional Engineering Services

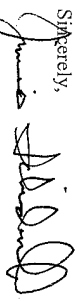
Dear Mr. Chu:

Transmitted herewith please find two fully executed duplicate originals of the Agreement For Professional Engineering Services (Engineering Management Services) between the North Harris County Regional Water Authority (the "Authority") and Turner Collier & Braden Inc. (the "Engineer"). This Agreement was approved by the Authority Board of Directors at the February 3, 2003, Board meeting. I am also sending two duplicate originals to Robin Bobbitt of Johnson Radcliffe Petrov & Bobbitt PLLC and I am retaining one for the Authority contract file.

SECTION III TERM OF AGREEMENT AND FUNDING of the Agreement in part states that "the term of this Agreement shall be for two (2) years from Notice to Proceed. The Notice to Proceed date is therefore February 7, 2003.

I would request that you and each of your engineering management team members read very carefully and become intimately familiar with the terms of this Agreement. I look forward to working very closely with the TC&B team in successfully accomplishing the goals of the Authority as it relates to providing engineering management services for the planning, design, construction, start-up, implementation, operation, and maintenance of the 2010 Water Distribution and Transmission System.

Please call me if you have any questions or need any additional information relative to the attached Agreement.

Sincerely,  
  
Jimmie Schindewolf, P.E.  
General Manager

JAS/lr  
Attachments  
Cc: Robin Bobbitt - w/attachment  
Alan Potok, P.E.  
Tom Rolen, P.E.

Michael Baugher, P.E.  
Cyndi Plunkett

**AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES**  
(Engineering Management Services)

THE STATE OF TEXAS     §  
                                  §  
COUNTY OF HARRIS     §

THIS AGREEMENT is made and entered into by and between the North Harris County Regional Water Authority (hereinafter, the "Authority"), a governmental agency and body politic and corporate of the State of Texas and Turner Colthe & Braden Inc. (hereinafter, the "Engineer").

**RECITALS:**

The Authority desires the services of the Engineer to provide professional engineering services for the planning, design, construction, start-up, implementation, operation and maintenance of the 2010 Water Distribution and Transmission System and including all interim phases therein (collectively, the "Project") to satisfy the surface water conversion requirements of the Harris-Galveston Coastal Subsidence District and to address interim water needs within the Authority; and

The Authority desires the Engineer to perform certain engineering management and professional engineering services in connection with the Project; and

The Engineer represents that it is qualified and desires to perform such services.

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

SECTION I

SCOPE OF AGREEMENT

The Engineer agrees to perform professional engineering services in connection with the Project as stated in the sections to follow, and for having rendered such services, the Authority agrees to pay to the Engineer compensation as stated in the sections to follow.

SECTION II

CHARACTER AND EXTENT OF SERVICES

The Engineer shall render engineering management and professional engineering services in connection with the Project. The Scope of Services which may be provided by the Engineer for the Project is set forth in **Appendix A** attached hereto and made a part hereof. The Engineer shall annually provide to the General Manager a list of services to be performed and estimated

cost of such services. The Engineer shall assist the General Manager in management of all engineering consultant contracts and engineering consultants engaged by the Authority to perform engineering and/or design related services in connection with the Project. The Engineer may be required to contract with an engineering consultant on the Authority's behalf. Additionally, the Engineer will coordinate the development of the scope of work for each engineering consultant and assist the General Manager of the Authority in negotiating all proposed consultant contracts to provide engineering and/or design services in connection with the Project.

### SECTION III

#### TERM OF AGREEMENT AND FUNDING

The term of this Agreement shall be for two (2) years from Notice to Proceed. The term of the Agreement may be extended annually thereafter upon mutual agreement of the Authority's General Manager and the Engineer. The Board of Directors (the "Board") of the Authority will ratify the action of the General Manager by formal adoption of the Authority's Annual Budget, such budget including a category for engineering services.

The Board has approved a budgeted amount of \$6,928,500 for engineering services for the current fiscal year which ends December 31, 2003. Included within that budget amount is funding for professional engineering services to be provided under this Agreement. Subsequent fiscal year funding for engineering services provided under this Agreement will be as approved in the Authority's Annual Budget.

### SECTION IV

#### THE ENGINEER'S COMPENSATION

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blue-line drawings or photocopies specifically required by Section II, except for Additional Services and Charges specified in Section V, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus ten percent of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by **Appendix A**, costs of travel outside

of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (i.e., charts, slides, transparencies), and costs of photographic and video services.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its written authorization, except to the extent the budget for such service is increased and continuation of such service is approved by further written authorization from the General Manager.

Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for the Design and Construction Phase of a project, until a construction contract for the project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted to the Authority for approval, whichever occurs first, the maximum compensation shall not exceed 95% of the total fee.

Percent of Construction Cost Compensation

For services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an Agreed Estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, Preliminary Design Phase is 35% of the total fee, the Final Design Phase is 50% of the total fee, and the Construction Phase is 15% of the total fee.

The total engineering fee shall be based on the City of Houston Curves of Median Compensation (as shown in **Appendix C**).

For interim payments during the Preliminary Design Phase, the estimated Construction Cost will be that cost as defined by the Engineer and agreed to by the General Manager and the Engineer, unless otherwise established.

For interim payments during the Design Phase, the most current Agreed Estimate shall be the basis for payments. Design Phase interim payments shall be equal to the percent complete of the Design Phase multiplied by the total Design Phase fee as based on the Agreed Estimate.

The final payment for the Design Phase of a construction package shall be calculated as follows:

1. If a construction contract is not bid and not awarded within nine (9) months from the date the final plans and specifications were submitted to the Authority for approval, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Agreed Estimate of probable Construction Cost, less any previous payments.
2. If a construction contract is advertised for bids and not awarded within nine (9) months from the date the final plans and specifications were submitted to the Authority for approval, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Agreed Estimate of probable Construction Cost, less any previous payments.
3. If a construction contract is awarded within nine (9) months from the date final plans and specifications were submitted to the Authority for approval, the final payment to the Engineer for the Design Phase will be based on the lowest bid received for the construction package, less any previous payments. However, the Engineer's fee will not be any lower than 95% of the agreed fee for each phase.

For interim payments during the Construction Phase, the fee shall be pro rated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction.

#### SECTION V

#### ADDITIONAL SERVICES AND CHARGES

The Engineer, upon prior written authorization from the General Manager, shall furnish the following additional services, and the Authority shall compensate the Engineer therefor as set forth below:

##### SERVICES

##### BASIS OF COMPARISON

- |   |  |
|---|--|
| <p>A. Alignment surveying, including the preparation of an alignment map, metes and bounds descriptions, parcel stakings, transit control line and benchmarks. Field surveys for design, construction and other field investigations.</p> | <p>See Hourly Rate Sheet (<b>Appendix B</b>) for services performed by the Engineer's office personnel, or actual invoice cost plus a 10 percent service charge.</p> |
| <p>B. Soil and foundation investigations, soil tests and analysis of test results which may be required for design or construction.</p>   | <p>Actual invoice cost plus a 10 percent service charge.</p>   |

- C. Additional reproduction of the Preliminary Engineering Report over seven (7) copies. Actual cost.
  - D. Changes in the drawings and specifications requested by the Authority which are outside the scope of the project. If changes are due to error or omission of Engineer, no additional compensation. Otherwise, hourly rate for services performed by the Engineer's employees or actual invoice cost plus a 10 percent service charge for services performed by the Engineer's subconsultant.
  - E. Abstracting Actual cost plus a 10 percent service charge.
  - F. Environmental Site Assessment See Hourly Rate Sheet (**Appendix B**) for services performed by the Engineer's employees. Actual invoice cost plus a 10 percent service charge for services performed by the Engineer's subconsultant.
  - G. Traffic study, traffic control plan, storm water pollution prevention plans and other special studies and reports See Hourly Rate Sheet (**Appendix B**) for services performed by the Engineer's employees. Actual invoice cost plus a 10 percent service charge for services performed by the Engineer's subconsultant.
  - H. Bid advertisement Actual cost plus a 10 percent service charge.
  - I. Bid set printing Actual cost plus a 10 percent service charge.
- It is expressly understood and agreed that Engineer shall not furnish any of the above additional services without the prior written authorization of the General Manager. The Authority shall have no obligation to pay for such additional services which have been performed without the prior written authorization of the General Manager as hereinabove provided.

#### SECTION VI

#### TIME OF PAYMENT

On or about the 15<sup>th</sup> of each calendar month during the performance of the services to be provided under this Agreement, the Engineer shall submit a sworn statement to the General Manager, in a form suitable to the Authority's auditor, setting forth the services provided under this Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person performing the services and countersigned by his/her supervisor

certifying that the work performed was authorized by the General Manager. For services compensated under the lump sum compensation method or percent of construction cost compensation method, the Engineer shall submit a monthly progress report substantiating the estimated percent complete of the authorized services performed during the billing period. The Engineer shall retain its records within the boundaries of Harris County and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within thirty (30) days after receipt by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements within thirty (30) days of receipt and approve them with such modifications, if any, as he/she deems appropriate. The Authority shall pay each statement within thirty (30) days after approval by the General Manager; provided, however, that the approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Agreement have been performed. Within thirty (30) days after the performance of all services provided for in this Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the General Manager, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

#### SECTION VII TERMINATION

This Agreement may be terminated by either party upon thirty (30) days' written notice to the other party. Upon delivery of such notice, the Engineer shall, unless the notice states otherwise, immediately discontinue all services in connection with the performance of this Agreement, and shall proceed to cancel promptly all existing orders and contracts insofar as such orders or contracts are chargeable to the Authority, and deliver to the Authority all instruments of service produced under this Agreement. Upon termination, the Authority will owe the Engineer for all compensation earned under this Agreement to the date of termination.

#### SECTION VIII NOTICE

Any notice required to be given under the provisions of this Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three days after the date of deposit in the United States mail. Unless otherwise provided in this Agreement, all notices shall be delivered to the following addresses:



To the Engineer: Turner Collier & Braden Inc.  
P.O. Box 130089  
Houston, Texas 77219

Attention: Min Chu, P.E.  
Senior Vice President

To the Authority: North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Attention: General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### SECTION IX

#### SUCCESSORS AND ASSIGNS

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Agreement. Neither the Authority nor the Engineer shall assign, sublet, or transfer its or his/her interest in this Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of the Engineer or any public body that may be a party hereto.

#### SECTION X

#### PUBLIC CONTACT

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Agreement or any requested service shall be referred to the Authority.

#### SECTION XI

#### COMPLIANCE AND STANDARDS

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary

information, materials, or trade secrets employed in the performance of work hereunder for the Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### SECTION XII

#### LICENSE REQUIREMENTS

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Agreement.

#### SECTION XIII

#### INSURANCE AND INDEMNIFICATION

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of negligence, errors or omissions at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act or accident, which may arise from the performance of his/her services under this Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Agreement and that of its subconsultants or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subconsultants (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.

SECTION XIV  
OWNERSHIP OF PLANS, COPYRIGHT,  
AND OTHER INTELLECTUAL PROPERTY

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Agreement, with the same force and effect as if the Authority prepared the same.

The Authority acknowledges the Engineer's construction documents, including electronic files, as instruments of professional service. Nevertheless, the final construction documents prepared under this Agreement shall become the property of the Authority upon completion of the services and payment in full of all monies due to the Engineer. The Authority shall not reuse or make any modification to the construction documents without the prior written authorization of the Engineer. The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subcontractants (collectively, the Engineer) against any damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising from or allegedly arising from or in any way connected with the unauthorized reuse or modification of the construction documents by the Authority or any person or entity that acquires or obtains the construction documents from or through the Authority without the written authorization of the Engineer.

To the extent that the Engineer has retained any rights in any intellectual property related to this Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Agreement. Any and all costs incurred in

connection with the performance of services outlined in this paragraph shall be reimbursed to the Engineer by the Authority.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Agreement.

Copies of all complete or partially complete information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Agreement, shall also be delivered by the Engineer to the Authority when and if this Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VII above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

#### SECTION XV

#### MODIFICATIONS

This instrument contains the entire Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

#### SECTION XVI

#### AUTHORITY OF GENERAL MANAGER

The General Manager shall oversee and manage the professional engineering services performed under this Agreement. The General Manager shall authorize work to be performed under this Agreement pursuant to the issuance of an Engineering Services Authorization to the

Engineer. The General Manager may allocate funds among various work efforts as warranted, provided that the total allocated amount, taking into account expenditures incurred against the Agreement by the Engineer, is not exceeded. Nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Agreement.

#### SECTION XVII

#### SEVERABILITY

Any provision or part of this Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer; who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

#### SECTION XVIII

#### MERGER

The Parties agree that this Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Agreement.

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SECTION XIX  
EXECUTION

The Authority executes this Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Agreement shall not become effective until executed by all parties hereto.

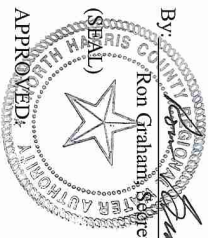
NORTH HARRIS COUNTY REGIONAL WATER  
AUTHORITY

By: *Lenox A. Sigler*  
Lenox A. Sigler, President

Date Signed: 2-03-03

ATTEST:

By: *Ron Graham*  
Ron Graham, Secretary




By: *Jimmie Schindewolf*  
Jimmie Schindewolf, P.E.  
General Manager

TURNER COLLIE & BRADEN INC.

By: Min Chu  
Name: Min Chu  
Title: Senior Vice President  
Date Signed: February 3, 2003

ATTEST:

By:   
Name: Alan J. Patok  
Title: Senior Vice President

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**APPENDIX A**  
**Scope of Services**

The ENGINEER will perform or cause to be performed services in four (4) typical categories:

- A. General Engineering and Support Services;
- B. Preliminary and Final Design Engineering and Support Services;
- C. Construction Administration Services; and
- D. Administrative Support Services.

The following is a detailed description of the proposed services by category.

*NOTE: When used in this Scope of Services the word "subconsultant" shall mean another consultant retained by the Authority.*

**A. General Engineering and Support Services**

1. The ENGINEER will develop a detailed schedule for implementation of the 2010 Water Distribution and Transmission System (the "SYSTEM") in multiple project units. Phase I of the SYSTEM includes those components required to address water quality and quantity issues prior to 2010. Phase II is the remainder of the SYSTEM. The schedule will show the required engineering, engineering support, construction activities and startup for each project unit, and will be submitted to the Authority for approval. The schedule will be updated as necessary to reflect significant changes and progress.
2. The ENGINEER will prepare budgets for each project unit including estimates of engineering costs, survey costs and other related services, construction administration and inspection costs, and construction costs. Draft budgets will be submitted to the General Manager for review. The budgets will be updated as



- necessary should any significant change occur to the project unit scope of services.
3. The ENGINEER will prepare and submit to the General Manager a monthly report showing the progress of major activities and a comparison of expenditures versus the budget.
  4. The ENGINEER will define and submit to the General Manager the various project scope of services to be provided by other engineers, surveyors, geotechnical firms, or specialty firms retained by the Authority to assist in implementation of the SYSTEM. The ENGINEER will define the basic design criteria, specifications, construction documents, and drawing standards to be used. It is anticipated that the general industry standards for water line design and construction prevailing in the area will be sufficient for this purpose and that new standards or manuals for each project unit will be required only if they are not already available. The ENGINEER will review the work products of other firms to insure compliance with the various project scope of services, budget and the implementation schedule.
  5. The ENGINEER will assist the General Manager in negotiating the various contracts for the professional services addressed under item no. 4 above.
  6. The ENGINEER will assist the General Manager in managing the consultant contracts awarded by the Authority involving or in support of professional services addressed under item no. 4 above.
  7. The ENGINEER will perform hydraulic modeling of the overall SYSTEM, if required, to evaluate changes in water main routing or sizes that may be proposed

- during the preliminary and final design phase, and to insure that these changes are consistent with overall system operating requirements. The ENGINEER will recommend to the General Manager when hydraulic modeling needs to be accomplished. Authorization must be obtained from the General Manager prior to initiating such services.
8. The ENGINEER will perform and/or recommend to be performed analyses as required to evaluate the impact on the Authority's Water Pricing Policy (the "Pricing Policy") because of potential changes in the SYSTEM costs or schedule or any component used in developing such Pricing Policy. The ENGINEER will recommend to the General Manager when additional analyses need to be performed and whether the ENGINEER or a subconsultant should provide the analyses. Authorization must be obtained from the General Manager prior to initiating such analyses.
  9. The ENGINEER will complete the development of the Groundwater Reduction Plan (the "GRP") and prepare amendments and updates to the GRP, as necessary. Amendments and/or updates will be prepared as requested by the General Manager or based on the recommendation of the ENGINEER and with the concurrence of the General Manager.
  10. The ENGINEER will assist the Authority in the development, implementation and tracking of its Capital Improvement Program.
  11. The ENGINEER will develop a System Operations Plan (the "SOP") including startup and ongoing SYSTEM O&M. These efforts shall include such activities as developing start-up procedures, evaluating alternatives for SYSTEM O&M,

- assisting the Authority in securing and implementing selected O&M alternative(s) and monitoring performance of the SOP on the Authority's behalf.
12. The ENGINEER will assist the Authority in developing, implementing and operating a Record's Management System and an integrated database during the term of this Agreement.
  13. The ENGINEER will assist and/or recommend assistance to be made available to the Authority in the development and implementation of a right-of-way acquisition program to timely facilitate the proposed construction.
  14. The ENGINEER will assist the Authority as necessary in the preparation of data in support of its financial activities, e.g. bond sale, grant and loan requests, etc.
  15. The ENGINEER may perform other services as requested by the General Manager. Separate written authorization must be obtained from the General Manager prior to services being performed if the requested service(s) are not identified in this original scope of services.

**B. Preliminary and Final Design Engineering and Support Services**

1. The ENGINEER will perform or recommend to be performed the preliminary engineering services for each of the project units. The ENGINEER shall recommend to the General Manager which project units should be implemented. Additionally, the ENGINEER shall recommend which project unit services are to be performed by the ENGINEER or a subconsultant. Authorization must be obtained from the General Manager prior to initiating such services. The scope of services includes, but shall not be limited to, the following:

- a. Collect available data on existing and proposed street rights-of-way and all existing and proposed utilities located in and adjacent to street rights-of-way.
- b. Collect available data on the existing utility systems of the utility districts electing to participate in Phase I as buyers or sellers. This data is needed so that appropriate connections to the utility district systems can be designed.
- c. Define field surveys required to verify critical items and to provide topographic data sufficient for final design.
- d. Establish the final alignment for the water mains required to implement the SYSTEM, based on such considerations as data from subcontractants providing engineering, surveying and geotechnical information pertinent to the project unit, the location of buyer and seller utility districts; existing and proposed public street rights-of-way; existing and proposed utility/pipeline rights-of-way/easements and existing utilities within these rights-of-way. Significant changes in alignment compared to the adopted project plan would be recommended to the General Manager for modeling in accordance with item no. A.7 above.
- e. Prepare a preliminary engineering report depicting the recommended final alignment of each water main, the recommended final design and construction units, and the estimated probable construction cost of each project unit, including exhibits.

2. The ENGINEER will provide and/or recommend to be provided surveying services required to support the implementation of the SYSTEM. The ENGINEER will recommend to the General Manager the surveying services needed. Additionally, the ENGINEER will recommend whether the ENGINEER or a subconsultant should perform the surveying and related services. Authorization must be obtained from the General Manager prior to initiating such services. The surveying services may include, but shall not be limited to, the following:
  - a. Topographic surveys of proposed routes including verification of existing utilities and street rights-of-way.
  - b. Construction control surveys sufficient to allow contractors to perform construction staking of individual projects.
3. Final engineering design services for each of the project units may be provided by the ENGINEER and/or other subconsultants. The ENGINEER will recommend to the General Manager the engineering services needed. Additionally, the ENGINEER shall recommend which project unit services are to be performed by the ENGINEER or a subconsultant. Authorization must be obtained from the General Manager prior to initiating such services.

The scope of services may include, but shall not be limited to, the following:

  - a. Prepare a final set of construction plans for the designated project unit based on the preliminary engineering report for that project unit.
  - b. Prepare contract documents and specifications for the project unit.
  - c. Prepare an engineers estimate of the cost to construct the project unit.

d. In the event other subconsultants provide final design services, item no. A.4 above will apply.

4. The ENGINEER may perform other services as requested by the General Manager. Separate written authorization must be obtained from the General Manager prior to such services being performed.

**C. Construction Administration Services**

1. The ENGINEER may provide construction administration services, if authorized by the General Manager, in accordance with the following scope. The General Manager may accomplish construction administration services with Authority employees, with other subconsultants selected by the General Manager or in combination with the ENGINEER, personnel of the Authority, and/or other subconsultants. The scope of services may include, but shall not be limited to, the following:

a. Assist the Authority in soliciting and evaluating bids; research and evaluate related bid documents, and recommend award of a contract or contracts.

b. Provide construction administration of the Authority's construction projects. Administrative duties include, but are not limited to, the oversight of daily construction activity reports; coordinating design engineer and contract questions; oversight of changes in contract requests, shop drawings, project schedules, construction materials testing/reporting; project pay estimate and change order review and approval; and other activities as may be necessary. Assist General Manager and Authority staff in addressing construction related concerns or complaints.

- c. Assist with the coordination with any subconsultants performing design services in the evaluation of change orders, construction submittals and other related activities. The scope of services for subconsultants will be addressed as defined in item no. A.4.
- d. Manage the observation of construction as required. It is not anticipated that continuous observation of every individual contract will be required since construction will be occurring simultaneously on several contracts.
- e. Provide or cause to be provided construction control for each project. Construction staking is to be performed by the contractor.
- f. Assist in job closeout including final inspection and recommendation of final payment.
- g. The ENGINEER may perform other services as requested by the General Manager. Separate written authorization must be obtained from the General Manager prior to such services being performed.

**D. Administrative Support Services**

The ENGINEER will provide the following services:

- 1. Assist the General Manager and its Attorney, in developing standard forms of contracts for purchasing and selling groundwater.
- 2. Assist and/or recommend assistance to be made available to develop and implement a computer based system to collect and evaluate data on the water usage patterns of potential seller utility districts and buyer utility districts. Data would include water pumped into the utility district distribution system, water well pumpage, and interconnect transfers between utility districts (if available).  
Data from prior studies on actual well capacities of potential seller utility districts

- would also be collected. Collection of this data would be facilitated by a SCADA system that should anticipate and be consistent with the SCADA system for the SYSTEM. Analytical software will be recommended to allow the Authority to model water usage of targeted utility districts and define the volume of water that can be predictably delivered to buyers. This computer-based system should be implemented as soon as practical after a decision to proceed with the SYSTEM is made so that water usage can be monitored during the design and construction period, and theoretical water purchases and sales modeled during this period can be used as the basis for final decisions regarding commitments to buyer utility districts. This data can also be used to support decisions to construct regional wells by the Authority.
3. Assist and/or recommend assistance to be made available in establishing billing and collection procedures including accounting and reporting software that interfaces effectively with the software supporting the water usage module.
  4. Assist in and/or recommend the development of requirements for the design of the SCADA system required for the SYSTEM to enable the Authority to monitor and control the various components of the SYSTEM to insure SYSTEM integrity and operability and to predictably meet the surface water conversion goal. It is anticipated that the computer-based system described in item no. D.2 will be expanded for this purpose.
  5. Assist and/or recommend assistance to be made available in establishing billing and collection procedures for the purchase and sale of ground and surface water in 2010 and beyond. This system should be defined so that an effective transition



from the pre-2010 groundwater purchases and sales and the post-2010 surface and groundwater purchases and sales will be accomplished.

6. The ENGINEER may perform other services as requested by the General Manager. Separate written authorization must be obtained from the General Manager prior to such services.

**APPENDIX B**

**Hourly Rate Sheet\***

<b>Labor Classification</b>	<b>Rate</b>
Principal	\$200
Program Manager and Project Manager	\$177
Senior Engineer	\$152
Project Engineer	\$107
Graduate Engineer	\$ 75
Lead Tech., CADD/GIS Specialist	\$ 95
CADD/GIS Tech. VII	\$ 60
Clerk, Admin. Asst.	\$ 67
Word Processing, Acct./Fin. Asst.	\$ 56
Marketing Coordinator	\$ 70

\*NOTE: These rates are for calendar year 2003. Subsequent year rates will be agreed to in writing by the General Manager and the Engineer.

**APPENDIX C**

**City of Houston Curves for Median Compensation**

FROM : AONE

PHONE NO. : 713.680.1835

JUL 17 2002 01:01PM PT



**CITY OF HOUSTON**  
Public Works and Engineering  
Department

Lee P. Brown

Mayor

Jon C. Vanden Bosch, P.E.  
Director  
Public Works & Engineering  
Department  
P.O. Box 1862  
Houston, Texas 77251-1862  
T. 713.837.0037  
F. 713.837.0040  
[www.cityofhouston.gov](http://www.cityofhouston.gov)

July 16, 2002

Christina M. Lindsay, Executive Director  
Houston - CEC  
2020 North Loop West, Suite 240  
Houston, Texas 77018

Dear Ms. Lindsay:

PW&E has adopted the revised Curves of Median Compensation attached hereto. These curves and/ or the associated tables will be used for determining the engineering fees as appropriate in this Department until further notice.  
Sincerely,

A handwritten signature in black ink, appearing to read "Jon C. Vanden Bosch".

Jon C. Vanden Bosch, P.E.  
Director  
Department of Public Works and Engineering

CC: Showri Nandajiri, P.E.  
Jeff Taylor  
Eric Dargan  
Rick Vacar - Aviation Department  
Monique McGilbra - Building Services Department

Council Members: Bruce Tatro, Carol M. Galloway, Mark Goldberg, Ada Everette, Adelle Wiseman, Hank A. Ellis, Bert Keller, Gabriel Vasquez, Carol Alvarado,  
Aimee D. Parker, Gordon Quan, Shirley Siskula-Gibler M.D., Miranda Berry, Carroll G. Robinson, Camille R. Sylvia R. Garcia

# DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

## Curves of Median Compensation Curves A and B

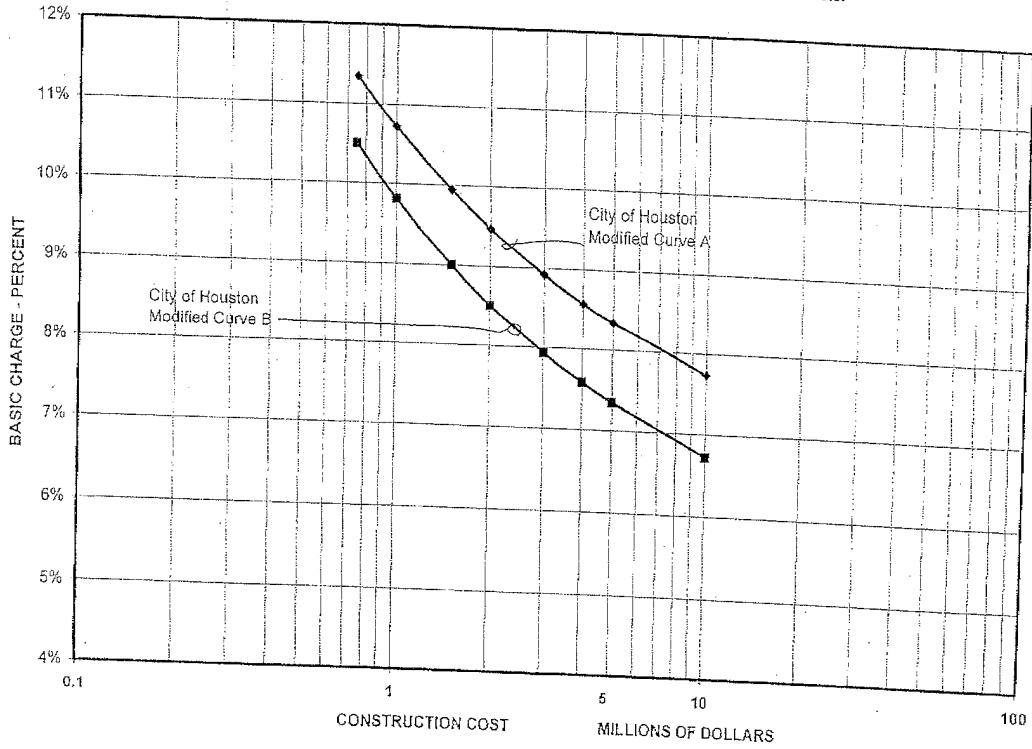
*Showri Nandagiri*  
Showri Nandagiri, P.E.  
Deputy Director

*Jon C. Vanden Bosch*  
Jon C. Vanden Bosch, P.E.  
Director

FROM : ROBE

PHONE NO. : 713 880 1835

JUL 17 2002 01:01PM P2



6/25/2002

MODIFIED CURVE A

Cost of Construction in Millions	Percent	Fee	Cost of Construction in Millions	Percent	Fee
0.750	11.347%	\$85,089.31	0.750	10.489%	\$78,668.84
0.775	11.270%	\$87,339.27	0.775	10.407%	\$80,665.49
0.800	11.196%	\$89,589.35	0.800	10.329%	\$82,632.09
0.825	11.126%	\$91,789.97	0.825	10.254%	\$84,599.09
0.850	11.059%	\$94,001.54	0.850	10.183%	\$86,566.88
0.875	10.995%	\$96,204.43	0.875	10.115%	\$88,505.86
0.900	10.933%	\$98,398.99	0.900	10.050%	\$90,446.37
0.925	10.874%	\$100,585.53	0.925	9.987%	\$92,378.74
0.950	10.817%	\$102,764.36	0.950	9.927%	\$94,303.28
0.975	10.763%	\$104,935.76	0.975	9.869%	\$96,220.27
1.000	10.710%	\$107,100.00	1.000	9.813%	\$98,130.00
1.025	10.659%	\$109,257.33	1.025	9.759%	\$100,032.71
1.050	10.610%	\$111,407.98	1.050	9.707%	\$101,928.64
1.075	10.563%	\$113,552.17	1.075	9.657%	\$103,818.01
1.100	10.517%	\$115,690.11	1.100	9.609%	\$105,701.05
1.125	10.473%	\$117,822.01	1.125	9.562%	\$107,577.96
1.150	10.430%	\$119,948.05	1.150	9.517%	\$109,448.91
1.175	10.389%	\$122,068.40	1.175	9.474%	\$111,314.10
1.200	10.348%	\$124,183.25	1.200	9.431%	\$113,173.70
1.225	10.310%	\$126,292.73	1.225	9.390%	\$115,027.98
1.250	10.272%	\$128,397.02	1.250	9.350%	\$116,876.75
1.275	10.235%	\$130,496.23	1.275	9.311%	\$118,720.52
1.300	10.199%	\$132,590.56	1.300	9.274%	\$120,559.29
1.325	10.165%	\$134,680.08	1.325	9.237%	\$122,393.22
1.350	10.131%	\$136,764.95	1.350	9.202%	\$124,222.42
1.375	10.098%	\$138,845.28	1.375	9.167%	\$126,047.02
1.400	10.066%	\$140,921.18	1.400	9.133%	\$127,867.13
1.425	10.035%	\$142,992.77	1.425	9.101%	\$129,682.87
1.450	10.004%	\$145,060.15	1.450	9.069%	\$131,494.35
1.475	9.974%	\$147,123.43	1.475	9.037%	\$133,301.66
1.500	9.946%	\$149,182.70	1.500	9.007%	\$135,104.92
1.525	9.917%	\$151,238.05	1.525	8.977%	\$136,904.20
1.550	9.890%	\$153,289.58	1.550	8.948%	\$138,699.61
1.575	9.863%	\$155,337.38	1.575	8.920%	\$140,491.22
1.600	9.836%	\$157,381.49	1.600	8.892%	\$142,279.13
1.625	9.811%	\$159,422.05	1.625	8.865%	\$144,063.42
1.650	9.785%	\$161,459.10	1.650	8.839%	\$145,844.16
1.675	9.761%	\$163,492.73	1.675	8.813%	\$147,621.43
1.700	9.737%	\$165,523.00	1.700	8.788%	\$149,395.31
1.725	9.713%	\$167,549.99	1.725	8.763%	\$151,165.85
1.750	9.690%	\$169,573.76	1.750	8.739%	\$152,933.14
1.775	9.667%	\$171,594.37	1.775	8.715%	\$154,697.23
1.800	9.645%	\$173,611.90	1.800	8.692%	\$156,458.18
1.825	9.623%	\$175,626.39	1.825	8.669%	\$158,216.07
1.850	9.602%	\$177,637.90	1.850	8.647%	\$159,970.95
1.875	9.581%	\$179,646.50	1.875	8.625%	\$161,722.87
1.900	9.561%	\$181,652.24	1.900	8.604%	\$163,471.88

1

MODIFIED CURVE B

6/25/2002

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee
1.925	9.541%	\$183,665.17
1.960	9.521%	\$185,665.33
1.975	9.501%	\$187,662.79
2.000	9.482%	\$189,647.58
2.025	9.464%	\$191,639.76
2.050	9.445%	\$193,629.37
2.075	9.427%	\$195,616.46
2.100	9.410%	\$197,601.06
2.125	9.392%	\$199,583.21
2.150	9.375%	\$201,562.97
2.175	9.359%	\$203,540.36
2.200	9.342%	\$205,515.43
2.225	9.325%	\$207,488.21
2.250	9.309%	\$209,458.74
2.275	9.293%	\$211,427.05
2.300	9.278%	\$213,393.18
2.325	9.263%	\$215,357.16
2.350	9.248%	\$217,319.03
2.375	9.233%	\$219,278.81
2.400	9.218%	\$221,236.53
2.425	9.204%	\$223,192.23
2.450	9.190%	\$225,145.94
2.475	9.176%	\$227,097.68
2.500	9.162%	\$229,047.48
2.525	9.148%	\$230,995.37
2.550	9.135%	\$232,941.37
2.575	9.122%	\$234,885.52
2.600	9.109%	\$236,827.83
2.625	9.096%	\$238,768.33
2.650	9.083%	\$240,707.05
2.675	9.071%	\$242,644.01
2.700	9.058%	\$244,579.23
2.725	9.046%	\$246,512.73
2.750	9.034%	\$248,444.54
2.775	9.023%	\$250,374.68
2.800	9.011%	\$252,303.17
2.825	8.999%	\$254,230.02
2.850	8.988%	\$256,155.27
2.875	8.977%	\$258,078.93
2.900	8.966%	\$260,001.02
2.925	8.955%	\$261,921.56
2.950	8.944%	\$263,840.57
2.975	8.933%	\$265,758.06
3.000	8.922%	\$267,674.05
3.025	8.912%	\$269,588.57
3.050	8.902%	\$271,501.62
3.075	8.891%	\$273,413.23

MODIFIED CURVE B

Cost of Construction In Millions	Percent	Fee
1.925	8.583%	\$166,218.06
1.950	8.562%	\$168,961.44
1.975	8.542%	\$168,702.07
2.000	8.522%	\$170,440.01
2.025	8.502%	\$172,175.30
2.050	8.483%	\$173,907.99
2.075	8.464%	\$175,638.12
2.100	8.446%	\$177,365.74
2.125	8.428%	\$179,089.89
2.150	8.410%	\$180,813.60
2.175	8.392%	\$182,533.92
2.200	8.375%	\$184,251.88
2.225	8.359%	\$185,967.54
2.250	8.341%	\$187,680.91
2.275	8.325%	\$189,392.03
2.300	8.309%	\$191,100.95
2.325	8.293%	\$192,807.70
2.350	8.277%	\$194,512.30
2.375	8.262%	\$196,214.78
2.400	8.246%	\$197,915.19
2.425	8.231%	\$199,613.55
2.450	8.217%	\$201,309.90
2.475	8.202%	\$203,004.25
2.500	8.188%	\$204,696.63
2.525	8.174%	\$206,387.09
2.550	8.160%	\$208,075.63
2.575	8.146%	\$209,762.30
2.600	8.133%	\$211,447.10
2.625	8.119%	\$213,130.08
2.650	8.106%	\$214,811.25
2.675	8.093%	\$216,490.64
2.700	8.080%	\$218,168.27
2.725	8.068%	\$219,844.16
2.750	8.055%	\$221,518.34
2.775	8.043%	\$223,190.83
2.800	8.031%	\$224,861.85
2.825	8.019%	\$226,530.82
2.850	8.007%	\$228,198.35
2.875	7.995%	\$229,864.28
2.900	7.984%	\$231,528.53
2.925	7.972%	\$233,191.40
2.950	7.961%	\$234,852.62
2.975	7.950%	\$236,512.30
3.000	7.939%	\$238,170.48
3.025	7.928%	\$239,827.15
3.050	7.917%	\$241,482.35
3.075	7.907%	\$243,136.08

6/25/2002

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee
3.100	8.881%	\$275,923.41
3.125	8.871%	\$277,232.18
3.150	8.862%	\$279,139.55
3.175	8.852%	\$281,045.54
3.200	8.842%	\$282,950.17
3.225	8.833%	\$284,853.44
3.250	8.823%	\$286,756.38
3.275	8.814%	\$288,656.00
3.300	8.805%	\$290,556.31
3.325	8.796%	\$292,453.33
3.350	8.787%	\$294,350.07
3.375	8.778%	\$296,245.55
3.400	8.769%	\$298,139.77
3.425	8.760%	\$300,032.75
3.450	8.751%	\$301,924.50
3.475	8.743%	\$303,815.04
3.500	8.734%	\$305,704.38
3.525	8.726%	\$307,592.53
3.550	8.718%	\$311,365.30
3.600	8.710%	\$313,249.95
3.625	8.693%	\$315,133.45
3.650	8.885%	\$317,015.82
3.675	8.677%	\$318,897.07
3.700	8.670%	\$320,777.21
3.725	8.662%	\$322,656.25
3.750	8.654%	\$324,534.20
3.775	8.647%	\$326,411.07
3.800	8.639%	\$328,286.87
3.825	8.632%	\$330,161.61
3.850	8.624%	\$332,035.30
3.875	8.617%	\$333,907.95
3.900	8.610%	\$335,779.57
3.925	8.603%	\$337,650.17
3.950	8.595%	\$339,519.75
3.975	8.588%	\$341,388.33
4.000	8.581%	\$343,255.92
4.025	8.574%	\$345,122.52
4.050	8.568%	\$346,988.13
4.075	8.561%	\$348,852.81
4.100	8.554%	\$350,716.50
4.125	8.547%	\$352,579.25
4.150	8.541%	\$354,441.05
4.175	8.534%	\$356,301.91
4.200	8.528%	\$358,161.85
4.225	8.521%	\$360,020.87
4.250	8.515%	\$361,878.98

MODIFIED CURVE B

Cost of Construction In Millions	Percent	Fee
3.100	7.896%	\$244,798.37
3.125	7.886%	\$246,439.23
3.150	7.876%	\$248,088.68
3.175	7.866%	\$249,736.73
3.200	7.856%	\$251,383.40
3.225	7.846%	\$253,028.70
3.250	7.836%	\$254,672.65
3.275	7.826%	\$256,315.26
3.300	7.817%	\$257,956.55
3.325	7.807%	\$261,235.21
3.350	7.798%	\$262,872.62
3.375	7.789%	\$264,508.76
3.400	7.780%	\$266,143.64
3.425	7.771%	\$267,777.28
3.450	7.762%	\$269,409.69
3.475	7.753%	\$271,040.89
3.500	7.744%	\$272,670.89
3.525	7.735%	\$274,299.67
3.550	7.727%	\$275,927.29
3.575	7.718%	\$277,553.74
3.600	7.710%	\$279,179.03
3.625	7.701%	\$280,803.18
3.650	7.693%	\$282,426.19
3.675	7.685%	\$284,048.07
3.700	7.677%	\$285,668.84
3.725	7.669%	\$287,288.51
3.750	7.661%	\$288,907.09
3.775	7.653%	\$290,524.58
3.800	7.645%	\$292,141.00
3.825	7.638%	\$293,756.36
3.850	7.630%	\$295,370.66
3.875	7.622%	\$296,983.93
3.900	7.615%	\$298,596.15
3.925	7.608%	\$300,207.36
3.950	7.600%	\$301,817.55
3.975	7.593%	\$303,426.73
4.000	7.586%	\$305,034.91
4.025	7.579%	\$306,642.11
4.050	7.571%	\$308,248.32
4.100	7.564%	\$309,853.56
4.125	7.557%	\$311,457.84
4.150	7.550%	\$313,061.17
4.175	7.544%	\$314,663.55
4.200	7.537%	\$316,264.99
4.225	7.530%	\$317,865.49
4.250	7.523%	\$319,465.08



6/25/2002

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
4.275	8.508%	\$363,736.18	4.275	7.510%	\$321,063.75
4.300	8.502%	\$365,592.48	4.300	7.504%	\$322,661.51
4.325	8.496%	\$367,447.90	4.325	7.497%	\$324,258.37
4.350	8.490%	\$369,302.43	4.350	7.491%	\$325,854.33
4.375	8.484%	\$371,156.09	4.375	7.485%	\$327,449.41
4.400	8.477%	\$373,008.88	4.400	7.478%	\$329,043.61
4.425	8.471%	\$374,860.80	4.425	7.472%	\$330,636.94
4.450	8.465%	\$376,711.88	4.450	7.466%	\$332,229.41
4.475	8.459%	\$378,562.10	4.475	7.460%	\$333,821.01
4.500	8.454%	\$380,411.49	4.500	7.454%	\$335,411.77
4.525	8.448%	\$382,260.04	4.525	7.448%	\$337,001.68
4.550	8.442%	\$384,107.76	4.550	7.442%	\$338,590.75
4.575	8.436%	\$385,954.66	4.575	7.436%	\$340,178.99
4.600	8.430%	\$387,800.75	4.600	7.430%	\$341,766.41
4.625	8.425%	\$389,646.03	4.625	7.424%	\$343,353.00
4.650	8.419%	\$391,490.50	4.650	7.418%	\$344,938.79
4.675	8.414%	\$393,334.18	4.675	7.412%	\$346,523.77
4.700	8.408%	\$395,177.07	4.700	7.407%	\$348,107.94
4.725	8.403%	\$397,019.17	4.725	7.401%	\$349,691.33
4.750	8.397%	\$398,860.50	4.750	7.395%	\$351,273.82
4.775	8.392%	\$400,701.05	4.775	7.390%	\$352,855.74
4.800	8.386%	\$402,540.83	4.800	7.384%	\$354,436.77
4.825	8.381%	\$404,379.86	4.825	7.379%	\$356,017.04
4.850	8.376%	\$406,218.13	4.850	7.373%	\$357,596.54
4.875	8.370%	\$408,056.64	4.875	7.368%	\$359,175.28
4.900	8.365%	\$409,892.42	4.900	7.362%	\$360,753.26
4.925	8.360%	\$411,728.45	4.925	7.357%	\$362,330.50
4.950	8.355%	\$413,563.75	4.950	7.352%	\$363,906.99
4.975	8.350%	\$415,398.32	4.975	7.346%	\$365,482.75
5.000	8.345%	\$417,232.17	5.000	7.341%	\$367,057.77
5.025	8.340%	\$419,065.29	5.025	7.336%	\$368,632.07
5.050	8.335%	\$420,897.71	5.050	7.331%	\$370,205.64
5.075	8.330%	\$422,729.42	5.075	7.326%	\$371,778.50
5.100	8.325%	\$424,560.42	5.100	7.321%	\$373,350.64
5.125	8.320%	\$426,390.72	5.125	7.316%	\$374,922.07
5.150	8.315%	\$428,220.33	5.150	7.311%	\$376,492.81
5.175	8.310%	\$430,049.25	5.175	7.306%	\$378,062.84
5.200	8.305%	\$431,877.49	5.200	7.301%	\$379,632.18
5.225	8.301%	\$433,705.05	5.225	7.296%	\$381,200.83
5.250	8.296%	\$435,531.93	5.250	7.291%	\$382,768.90
5.275	8.291%	\$437,358.14	5.275	7.286%	\$384,336.09
5.300	8.286%	\$439,183.69	5.300	7.281%	\$385,902.71
5.325	8.282%	\$441,008.57	5.325	7.276%	\$387,468.66
5.350	8.277%	\$442,832.80	5.350	7.272%	\$389,033.94
5.375	8.273%	\$444,656.37	5.375	7.267%	\$390,598.56
5.400	8.268%	\$446,479.30	5.400	7.262%	\$392,162.52
5.425	8.264%	\$448,301.58	5.425	7.258%	\$393,725.83

6/25/2002

MODIFIED CURVE A

Cost of Construction in Millions	Percent	Fee
5.450	8.259%	\$450,123.22
5.475	8.255%	\$451,944.22
5.500	8.250%	\$453,764.60
5.525	8.246%	\$455,584.34
5.550	8.242%	\$457,403.47
5.575	8.237%	\$459,221.97
5.600	8.233%	\$461,039.86
5.625	8.229%	\$462,857.13
5.650	8.220%	\$464,673.80
5.675	8.216%	\$466,489.86
5.700	8.212%	\$468,305.33
5.725	8.208%	\$470,120.19
5.750	8.203%	\$471,934.47
5.775	8.199%	\$473,748.15
5.800	8.195%	\$475,561.25
5.825	8.191%	\$477,373.77
5.850	8.187%	\$479,185.71
5.875	8.183%	\$480,997.07
5.900	8.179%	\$482,807.86
5.925	8.175%	\$484,618.09
5.950	8.171%	\$486,427.75
5.975	8.167%	\$488,236.85
6.000	8.164%	\$490,045.39
6.025	8.160%	\$491,853.37
6.050	8.156%	\$493,660.81
6.075	8.152%	\$495,467.69
6.100	8.148%	\$497,274.04
6.125	8.144%	\$499,079.84
6.150	8.141%	\$500,885.10
6.175	8.137%	\$502,689.82
6.200	8.133%	\$504,494.02
6.225	8.130%	\$506,297.68
6.250	8.126%	\$508,100.82
6.275	8.122%	\$509,903.44
6.300	8.119%	\$511,705.53
6.325	8.115%	\$513,507.11
6.350	8.112%	\$515,308.17
6.400	8.104%	\$518,908.77
6.425	8.101%	\$520,708.30
6.450	8.097%	\$522,507.34
6.475	8.094%	\$524,306.87
6.500	8.090%	\$526,103.91
6.525	8.087%	\$527,901.45
6.550	8.084%	\$529,698.50
6.575	8.080%	\$531,495.06
6.600	8.080%	\$533,291.13

MODIFIED CURVE B

Cost of Construction in Millions	Percent	Fee
5.450	7.253%	\$395,288.49
5.475	7.246%	\$396,850.51
5.500	7.244%	\$398,411.88
5.525	7.239%	\$399,972.63
5.550	7.235%	\$401,532.74
5.575	7.230%	\$403,092.22
5.600	7.226%	\$404,651.08
5.625	7.221%	\$406,209.32
5.650	7.217%	\$407,766.94
5.675	7.213%	\$409,323.95
5.700	7.208%	\$410,880.35
5.725	7.204%	\$412,436.15
5.750	7.200%	\$413,991.35
5.775	7.196%	\$415,545.95
5.800	7.191%	\$417,099.96
5.825	7.187%	\$418,653.38
5.850	7.183%	\$420,206.21
5.875	7.179%	\$421,758.46
5.900	7.175%	\$423,310.13
5.925	7.171%	\$424,861.23
5.950	7.167%	\$426,411.75
5.975	7.163%	\$427,961.71
6.000	7.159%	\$429,511.10
6.025	7.155%	\$431,059.92
6.050	7.151%	\$432,608.19
6.075	7.147%	\$434,155.91
6.100	7.143%	\$435,703.07
6.125	7.139%	\$437,249.68
6.150	7.135%	\$438,795.75
6.175	7.131%	\$440,341.27
6.200	7.127%	\$441,886.26
6.225	7.123%	\$443,430.70
6.250	7.120%	\$444,974.62
6.275	7.116%	\$446,518.00
6.300	7.112%	\$448,060.86
6.325	7.108%	\$449,603.20
6.350	7.105%	\$451,145.01
6.375	7.101%	\$452,686.30
6.400	7.097%	\$454,227.08
6.425	7.094%	\$455,767.34
6.450	7.090%	\$457,307.10
6.475	7.086%	\$458,846.35
6.500	7.083%	\$460,385.09
6.525	7.079%	\$461,923.33
6.550	7.076%	\$463,461.08
6.575	7.072%	\$464,998.32
6.600	7.069%	\$466,535.08

6/25/2002

MODIFIED CURVE A

Cost of Construction in Millions	Percent	Fee
6.625	8.077%	\$535,086.72
6.650	8.073%	\$536,881.83
6.675	8.070%	\$538,676.45
6.700	8.067%	\$540,470.61
6.725	8.063%	\$542,264.28
6.750	8.060%	\$544,057.49
6.775	8.057%	\$545,850.23
6.800	8.054%	\$547,642.50
6.825	8.050%	\$549,434.31
6.850	8.047%	\$551,226.65
6.875	8.044%	\$553,018.54
6.900	8.041%	\$554,806.97
6.925	8.038%	\$556,596.95
6.950	8.034%	\$558,386.47
6.975	8.031%	\$560,175.56
7.000	8.028%	\$561,964.17
7.025	8.025%	\$563,752.35
7.050	8.022%	\$565,540.09
7.075	8.019%	\$567,327.39
7.100	8.016%	\$569,114.25
7.125	8.013%	\$570,900.67
7.150	8.010%	\$572,686.88
7.175	8.007%	\$574,472.22
7.200	8.004%	\$576,257.35
7.225	8.001%	\$578,042.05
7.250	7.998%	\$579,826.32
7.275	7.995%	\$581,610.18
7.300	7.992%	\$583,393.61
7.325	7.989%	\$585,176.62
7.350	7.986%	\$586,959.21
7.375	7.983%	\$588,741.39
7.400	7.980%	\$590,523.15
7.425	7.977%	\$592,304.51
7.450	7.974%	\$594,086.45
7.475	7.971%	\$595,865.99
7.500	7.969%	\$597,646.12
7.525	7.966%	\$599,425.85
7.550	7.963%	\$601,205.18
7.575	7.960%	\$602,984.11
7.600	7.957%	\$604,762.64
7.625	7.955%	\$606,540.78
7.650	7.952%	\$608,318.52
7.675	7.949%	\$610,096.87
7.700	7.946%	\$611,872.83
7.725	7.944%	\$613,649.40
7.750	7.941%	\$615,425.58
7.775	7.938%	\$617,201.38

MODIFIED CURVE B

Cost of Construction in Millions	Percent	Fee
6.625	7.065%	\$468,071.34
6.650	7.062%	\$469,607.12
6.675	7.058%	\$471,142.41
6.700	7.055%	\$472,677.21
6.725	7.051%	\$474,211.54
6.750	7.048%	\$475,745.39
6.775	7.045%	\$477,278.76
6.800	7.041%	\$478,811.66
6.825	7.038%	\$480,344.09
6.850	7.035%	\$481,876.05
6.875	7.031%	\$483,407.55
6.900	7.028%	\$484,938.58
6.925	7.025%	\$486,469.15
6.950	7.022%	\$487,999.27
6.975	7.018%	\$489,528.93
7.000	7.015%	\$491,058.13
7.025	7.012%	\$492,586.83
7.050	7.009%	\$494,115.19
7.075	7.006%	\$495,643.04
7.100	7.002%	\$497,170.46
7.125	6.999%	\$498,697.43
7.150	6.996%	\$500,223.96
7.175	6.993%	\$501,750.05
7.200	6.990%	\$503,275.71
7.225	6.987%	\$504,800.93
7.250	6.984%	\$506,325.72
7.275	6.981%	\$507,850.08
7.300	6.978%	\$509,374.02
7.325	6.975%	\$510,897.53
7.350	6.972%	\$512,420.61
7.375	6.969%	\$513,943.28
7.400	6.966%	\$515,465.53
7.425	6.963%	\$516,987.36
7.450	6.960%	\$518,508.77
7.475	6.957%	\$520,029.77
7.500	6.954%	\$521,550.36
7.525	6.951%	\$523,070.54
7.550	6.948%	\$524,590.32
7.575	6.945%	\$526,109.69
7.600	6.942%	\$527,628.65
7.625	6.940%	\$529,147.21
7.650	6.937%	\$530,665.38
7.675	6.934%	\$532,183.14
7.700	6.931%	\$533,700.52
7.725	6.928%	\$535,217.49
7.750	6.926%	\$536,734.08
7.775	6.923%	\$538,250.27

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee
7.800	7.936%	\$618,976.80
7.825	7.933%	\$620,751.83
7.850	7.930%	\$622,526.49
7.875	7.928%	\$624,300.76
7.900	7.925%	\$626,074.66
7.925	7.922%	\$627,848.19
7.950	7.920%	\$629,621.35
7.975	7.917%	\$631,394.13
8.000	7.915%	\$633,166.54
8.025	7.912%	\$634,938.59
8.050	7.909%	\$636,710.27
8.075	7.907%	\$638,481.58
8.100	7.904%	\$640,252.54
8.125	7.902%	\$642,023.13
8.150	7.899%	\$643,793.36
8.175	7.897%	\$645,563.23
8.200	7.894%	\$647,332.75
8.225	7.892%	\$649,101.91
8.250	7.889%	\$650,870.72
8.275	7.887%	\$652,639.18
8.300	7.884%	\$654,407.29
8.325	7.882%	\$656,175.05
8.350	7.880%	\$657,942.48
8.375	7.877%	\$659,709.52
8.400	7.875%	\$661,476.24
8.425	7.872%	\$663,242.62
8.450	7.870%	\$665,008.66
8.475	7.868%	\$666,774.35
8.500	7.865%	\$668,538.71
8.525	7.863%	\$670,304.73
8.550	7.860%	\$672,069.42
8.575	7.858%	\$673,833.77
8.600	7.856%	\$675,597.79
8.625	7.853%	\$677,361.47
8.650	7.851%	\$679,124.83
8.675	7.849%	\$680,887.86
8.700	7.847%	\$682,650.56
8.725	7.844%	\$684,412.93
8.750	7.842%	\$686,174.98
8.775	7.840%	\$687,936.71
8.800	7.837%	\$689,698.11
8.825	7.835%	\$691,459.20
8.850	7.833%	\$693,219.96
8.875	7.831%	\$694,980.41
8.900	7.829%	\$696,740.54
8.925	7.826%	\$698,500.35
8.950	7.824%	\$700,259.85

MODIFIED CURVE B

Cost of Construction In Millions	Percent	Fee
7.800	6.920%	\$539,766.08
7.825	6.917%	\$541,281.49
7.850	6.915%	\$542,796.53
7.875	6.912%	\$544,311.19
7.900	6.909%	\$545,826.45
7.925	6.906%	\$547,339.33
7.950	6.904%	\$548,852.84
7.975	6.901%	\$550,365.98
8.000	6.898%	\$551,878.74
8.025	6.896%	\$553,391.12
8.050	6.893%	\$554,903.14
8.075	6.891%	\$556,414.78
8.100	6.888%	\$557,925.06
8.125	6.885%	\$559,435.97
8.150	6.883%	\$560,947.51
8.175	6.880%	\$562,457.69
8.200	6.878%	\$563,967.51
8.225	6.875%	\$565,476.97
8.250	6.873%	\$566,986.07
8.275	6.870%	\$568,494.82
8.300	6.868%	\$570,003.20
8.325	6.865%	\$571,511.24
8.350	6.863%	\$573,018.92
8.375	6.860%	\$574,526.25
8.400	6.858%	\$576,033.23
8.425	6.855%	\$577,539.86
8.450	6.853%	\$579,046.15
8.475	6.850%	\$580,552.09
8.500	6.848%	\$582,057.69
8.525	6.845%	\$583,562.94
8.550	6.843%	\$585,067.86
8.575	6.840%	\$586,572.43
8.600	6.838%	\$588,076.67
8.625	6.836%	\$589,580.57
8.650	6.833%	\$591,084.14
8.675	6.831%	\$592,587.37
8.700	6.829%	\$594,090.27
8.725	6.826%	\$595,592.84
8.750	6.824%	\$597,095.07
8.775	6.822%	\$598,596.98
8.800	6.819%	\$600,098.57
8.825	6.817%	\$601,599.83
8.850	6.815%	\$603,100.76
8.875	6.812%	\$604,601.37
8.900	6.810%	\$606,101.66
8.925	6.808%	\$607,601.63
8.950	6.806%	\$609,101.28

6/25/2002

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee
8.975	7.822%	\$702,019.04
9.000	7.820%	\$703,777.91
9.025	7.818%	\$705,536.48
9.050	7.815%	\$707,294.73
9.075	7.813%	\$709,052.68
9.100	7.811%	\$710,810.32
9.125	7.809%	\$712,567.65
9.150	7.807%	\$714,324.68
9.175	7.805%	\$716,081.41
9.200	7.803%	\$717,837.84
9.225	7.800%	\$719,593.96
9.250	7.798%	\$721,349.79
9.275	7.796%	\$723,105.31
9.300	7.794%	\$724,860.54
9.325	7.792%	\$726,615.47
9.350	7.790%	\$728,370.11
9.375	7.788%	\$730,124.45
9.400	7.786%	\$731,878.50
9.425	7.784%	\$733,632.26
9.450	7.782%	\$735,385.73
9.475	7.780%	\$737,138.91
9.500	7.778%	\$738,891.80
9.525	7.776%	\$740,644.41
9.550	7.774%	\$742,396.72
9.575	7.772%	\$744,148.78
9.600	7.770%	\$745,900.50
9.625	7.768%	\$747,651.97
9.650	7.766%	\$749,403.15
9.675	7.764%	\$751,154.06
9.700	7.762%	\$752,904.68
9.725	7.760%	\$754,655.02
9.750	7.758%	\$756,405.09
9.775	7.756%	\$758,154.88
9.800	7.754%	\$759,904.39
9.825	7.752%	\$761,653.63
9.850	7.750%	\$763,402.60
9.875	7.748%	\$765,151.29
9.900	7.746%	\$766,899.71
9.925	7.745%	\$768,647.86
9.950	7.743%	\$770,395.74
9.975	7.741%	\$772,143.36
10.000	7.739%	\$773,890.70

MODIFIED CURVE B

Cost of Construction In Millions	Percent	Fee
8.975	6.803%	\$610,600.61
9.000	6.801%	\$612,099.62
9.025	6.799%	\$613,598.32
9.050	6.797%	\$615,096.71
9.075	6.794%	\$616,594.78
9.100	6.792%	\$618,092.54
9.125	6.790%	\$619,589.99
9.150	6.788%	\$621,087.13
9.175	6.786%	\$622,583.97
9.200	6.783%	\$624,080.49
9.225	6.781%	\$625,576.71
9.250	6.779%	\$627,072.63
9.275	6.777%	\$628,568.24
9.300	6.775%	\$630,063.55
9.325	6.773%	\$631,558.56
9.350	6.771%	\$633,053.28
9.375	6.769%	\$634,547.69
9.400	6.766%	\$636,041.80
9.425	6.764%	\$637,535.62
9.450	6.762%	\$639,029.14
9.475	6.760%	\$640,522.37
9.500	6.758%	\$642,015.31
9.525	6.756%	\$643,507.95
9.550	6.754%	\$645,000.31
9.575	6.752%	\$646,492.37
9.600	6.750%	\$647,984.15
9.625	6.748%	\$649,475.63
9.650	6.746%	\$650,966.84
9.675	6.744%	\$652,457.75
9.700	6.742%	\$653,948.38
9.725	6.740%	\$655,438.73
9.750	6.738%	\$656,928.80
9.775	6.736%	\$658,418.58
9.800	6.734%	\$659,908.09
9.825	6.732%	\$661,397.31
9.850	6.730%	\$662,886.26
9.875	6.728%	\$664,374.93
9.900	6.726%	\$665,863.33
9.925	6.724%	\$667,351.45
9.950	6.722%	\$668,839.29
9.975	6.720%	\$670,326.96
10.000	6.718%	\$671,814.16

6/25/2002

Agreement between North Harris County Regional Water Authority

and

Andrews & Kurth, L.L.P.

## MEMORANDUM

**TO:** Brooke Dold  
**FROM:** Lisa Randecker  
**DATE:** December 4, 2003  
**SUBJECT:** Agreement between North Harris County Regional Water Authority and Andrews & Kurth L.L.P.

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Transmitted herewith please find one fully executed duplicate original Agreement for Bond Counsel between the North Harris County Regional Water Authority (the "Authority") and Andrews & Kurth L.L.P. This Agreement was approved by the Authority Board of Directors at the May 5, 2003 Board meeting.

Please let me know if I can be of further assistance to you.

/s/

ANDREWS & KURTH L.L.P.

ATTORNEYS

AUSTIN  
DALLAS  
DENVER  
LONG BEACH  
NEW YORK  
THE WOODLANDS  
WASHINGTON, D.C.

600 TRAVIS, SUITE 4200  
HOUSTON, TEXAS 77002

TELEPHONE: 713.220.4200  
FACSIMILE: 713.220.4285

May 1, 2003

Members, Board of Directors  
North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Attention: Jimmie Schindewolf, General Manager

Re: *North Harris County Regional Water Authority Bonds*

Gentlemen:

We are pleased to submit to you this proposed agreement for the North Harris County Regional Water Authority (the "Authority") to engage Andrews & Kurth L.L.P. ("A&K") to serve as Bond Counsel with respect to the Authority's public finance needs, including its planned financing of the capital costs (net of district capital contributions) of purchasing surface water from the City of Houston and acquiring land for and constructing the Authority's 2010 water distribution and transmission system. Such financing will be accomplished by the Authority's issuance of one or more series of bonds, notes or other obligations that will be secured by pumpage fees and other Authority revenues. (Such obligations, together with any bonds issued for refunding purposes, are referred to herein as the "Bonds.") When approved by the Board of Directors (the "Board") of the Authority, this letter will confirm and evidence an agreement among the Authority and A&K.

As Bond Counsel, A&K will prepare, or assist the General Manager or other officials and staff of the Authority in the preparation of, all required legal proceedings and will perform certain other necessary legal work in connection with the Board's authorization and issuance of the Bonds. Our services as Bond Counsel will include the following Basic Services, which we will carry out directly or in concert with Authority officials and staff, as follows:

- (1) Preparation or assistance in the preparation of the orders of the Board authorizing the issuance of the Bonds (the "Orders"), any trust indentures, including supplements thereto, and other documents and legal instruments that comprise the transcripts of legal proceedings pertaining to the authorization, issuance and sale of the Bonds;





- (2) Preparation of initial temporary Bonds to be submitted to the Attorney General for approval and to the Comptroller for registration and, if required, preparation of definitive Bonds to be held in book-entry only form;
  - (3) Attendance at meetings called by the General Manager or other Authority officials and staff of the Authority to discuss the sizing, timing or sale of the Bonds;
  - (4) Consultation with the General Manager, officials and staff of the Authority, as well as the Authority's financial advisor or advisors, together with the underwriters for the Bonds, to review information to be included in the offering documents for the Bonds, but only to the extent that such information describes the Bonds, the security therefor, their federal income tax status and our opinion;
  - (5) Preparation of a transcript of legal proceedings pertaining to the Bonds and submission thereof to the Attorney General of Texas to obtain an approving opinion;
  - (6) At the closing for the Bonds, delivery of an approving opinion, based on facts and law existing as of its date, generally to the effect that the Bonds have been duly issued, executed and delivered in accordance with the Constitution and laws of the State of Texas, that the Bonds constitute valid and legally binding obligations of the Authority (subject to bankruptcy, insolvency, reorganization, moratorium and other similar laws in effect from time to time relating to or affecting the enforcement of rights of creditors of political subdivisions) and that, subject to certain restrictions, interest on the Bonds is excludable from the gross income of the owners thereof for federal income tax purposes; and
  - (7) Prior to and in connection with the closings for the Bonds, giving advice to the Authority to enable appropriate officials to comply with the arbitrage requirements of the Internal Revenue Code of 1986 as they affect the Bonds, including yield restrictions and rebate requirements.
- At the direction of the General Manager and either as an alternative to or in addition to certain of the foregoing Basic Services, A&K will undertake such services as are required to secure a declaratory judgment pursuant to Chapter 1205, Government Code, as to one or more of the matters set out in Section 1205.021 thereof.
- In addition to the foregoing Basic Services, as Bond Counsel, A&K is prepared to undertake the following Additional Services, as directed by the General Manager:
- (1) Disclosure work or similar services (other than the limited review of certain sections of the offering documents for the Bonds as described in paragraph (4) under Basic Services above) to assist the Authority or its financial advisor or advisors, together with the underwriters for the Bonds, in the preparation of such

offering and other documents, on such basis and to such extent as shall be directed by the General Manager or other officials and staff of the Authority, including compliance with the requirements of SEC Rule 15c2-12, as amended;

(2) Attendance at rating agency presentations, investor meetings or other presentations relating to the marketing of the Bonds and consultation with the General Manager and other Authority officials, staff and advisors, together with the underwriter for the Bonds, to develop such presentations;

(3) Any other special services not ordinarily required in connection with the issuance of fixed-rate revenue obligations, including services rendered in connection with special federal income tax issues or unusual issues arising in connection with the Authority's financial reports or audits, any documentation or related services for credit or liquidity facilities or enhancements or other special structuring techniques or devices to be employed in connection with the issuance of the Bonds;

(4) After the closing for the Bonds, providing assistance to the Authority concerning questions and issues that may arise prior to the maturity of the Bonds; and

(5) Any other legal services requested by the General Manager, including but not limited to, (i) work on contracts between the Authority, districts and other customers served by its system, the City of Houston and other political entities and private parties and (ii) consultation with the General Manager and other representatives of the Authority regarding the development of the Authority's water distribution and transmission system.

For Basic Services performed in connection with the issuance of each series of Bonds, A&K will be paid a fee that will be calculated on an hourly rate basis pursuant to the schedule of rates attached hereto. Fees for Basic Services shall be paid from the proceeds of the sale of the Bonds or from other funds, as the Authority deems appropriate. Except as otherwise provided below, payment of such fees for Basic Services shall be made after the closing for the Bonds and within thirty (30) days after receipt by the Authority of an approved invoice therefor. The maximum fees paid to Bond Counsel for any series of Bonds will be an amount mutually agreed upon by A&K and the General Manager of the Authority.

The fee for any Additional Services provided by Bond Counsel will also be determined on an hourly rate basis either pursuant to the schedule of rates attached hereto or as A&K and the General Manager of the Authority may agree. Fees for Additional Services shall be paid from the proceeds of the sale of the Bonds or from other funds, as the General Manager deems appropriate.

Bond Counsel will be reimbursed for reasonable and actual out-of-pocket expenses, such as the cost of reproduction of documents, out-of-town travel, long-distance telephone, telecommunications and similar expenses, deliveries, filing fees and all items paid for by Bond Counsel on behalf of the Authority and incurred in connection with the performance of any services hereunder.

Nothing herein shall be construed as creating any personal liability on the part of any officer or employee of the Authority, and this agreement may be terminated by the Authority by giving thirty (30) days' prior written notice to Bond Counsel.

As we have discussed, you are aware that A&K represents many other governmental entities, companies and individuals. It is possible that during the time that we are representing you, some of our present or future clients will have disputes or transactions with you. You agree that we may continue to represent or may undertake in the future to represent existing or new clients in any matter that is not substantially related to our work for you even if the interests of such clients in those other matters are directly adverse. We agree, however, that your prospective consent to conflicting representation contained in the preceding sentence shall not apply in any instance where, as a result of our representation of you, we have obtained proprietary or other confidential information of a nonpublic nature, that, if known to such other client, could be used in any other such other matter by such client to your material disadvantage.



A&K acknowledges and agrees that the Authority has engaged the firm of Johnson Radcliffe Petrov & Bobbitt PLLC ("JRP&B") to serve as Co-Bond Counsel with A&K in connection with the authorization, issuance and sale of one or more series of the Bonds. Any such engagement will provide that, under the direction and supervision of the General Manager of the Authority, A&K and JRP&B will allocate the performance of Basic Services, as described above, and further that the fees and expenses of JRP&B shall be separate and apart from the fees and expenses of A&K.

If this proposed agreement for the services of A&K is satisfactory, please evidence your acceptance and approval by executing three copies, each of which shall be an original, in the space provided below.

Very truly yours,  
  
Robert M. Collie, Jr.

Dated: May 5, 2003

NORTH HARRIS COUNTY REGIONAL  
WATER AUTHORITY

  
\_\_\_\_\_, Board of Directors  
  
Jimmie Schindewolf, General Manager

**EXHIBIT A**  
to  
**Agreement for Bond Counsel Services**  
**ANDREWS & KURTH L.L.P.**  
**Schedule of Standard Rates (Texas)**  
**January 1, 2003**

Andrews & Kurth L.L.P. maintains a schedule of standard hourly rates, which is subject to periodic revision. The schedule in effect as of January 1, 2003 is summarized as follows:

	<u>Approximate Years of Practice</u>	<u>Hourly Rate</u>
Associates:	Entry to 1	\$180
	2	\$200 to \$225
	3	\$190 to \$240
	4	\$250 to \$275
	5	\$270 to \$335
	6	\$290 to \$370
	7 and Over	\$305 to \$385
Partners:		\$335 to \$625
Of Counsel:		\$240 to \$580
Senior Attorneys:		\$80 to \$390
Legal Assistants:		\$100 to \$185
Briefing Clerks:		\$120

Agreement between North Harris County Regional Water Authority

and

GMS Group, L.L.C.



AFFILIATE OF GRANITZ & CO, INCORPORATED ESTABLISHED 1890. MEMBER NEW YORK STOCK EXCHANGE

July 5, 2000

North Harris County Regional Water Authority  
Attn: Board of Directors/General Manager  
P.O. Box 1253  
Tomball, Texas 77375-1253

Gentlemen:

The purpose of this letter is to serve as a "day to day" Financial Advisory Agreement (the "Agreement") between the North Harris County Regional Water Authority (the "Authority") and the GMS Group, L.L.C. ("GMS").

GMS proposes to serve as the Financial Advisor to the Authority and to work with the Authority on a project by project basis. We will work on projects/assignments that the Authority's management/staff wishes us to work on from time to time. GMS will work on just "go-off" and work on a project/assignment unless asked to do so by the Authority. Attached to this letter is the "Scope of Services" schedule that you provided to me on June 28<sup>th</sup>, that schedule is incorporated into this letter agreement in order to help define what GMS will do for the Authority.

GMS will be paid a fee of \$135.00 per hour for the work performed. GMS will NOT charge additional fees, based upon issue size, for work that is performed as a part of any bond transaction, private placement transaction, or loan transaction.

Amounts invoiced by GMS to the Authority will be paid only if the Authority is happy with the work performed. Invoices will specifically identify the time that was spent on each project/assignment so the Board members can easily review the charges for work performed. If the Authority is not happy with the work performed, then no amount will be owed to GMS for such work.

GMS will work exclusively in an advisory capacity to the Authority and not put ourselves in a position where there would be a potential conflict of interest. This means that we: (i) will not ask to serve as an Underwriter on negotiated transactions with the Authority; (ii) only submit a bid for bonds sold at a public sale with the explicit permission of the Board of Directors at the time of the bond sale; and (iii) will not ask to sell investment securities to the Authority although we may help get bids for investment securities at the request of the Authority.

North Harris County Regional Water Authority  
Page 2

Either party may terminate this Agreement at any time without cause by giving the other party 7 days written notice. Upon notice of termination, GMS will complete any work that it is currently in the process of providing for the Authority's management/staff at the Authority's request. Upon termination, the Authority will pay the amounts owed to GMS for the work performed.

If this Agreement is acceptable to the Authority, then just let me know what you would like for me to begin working on for you.

I have enjoyed working/visiting with the Board members during the past few months and I look forward to continuing to work with you and your staff in the future. I promise to do a good job for you.

If I can answer any questions that you may have, please do not hesitate to call me at (713) 626-3552.

Sincerely yours,



John F. Howell, Jr.  
Senior Vice President

**ATTACHMENT  
FINANCIAL ADVISOR  
(DAY TO DAY)  
SCOPE OF SERVICES**

1. Serve in an advisory capacity to the Board of Directors, General Manager and Financial Assistant.
2. Accept assignments on a project-by-project basis. Projects to be defined prior to initiating services.
3. Offer information pertinent to the Financial Assistant position, i.e., job description, salary range, etc.
4. Assist NHCRCWA in developing an investment policy.
5. Assist General Manager and Financial Assistant with financial planning and cash management both short and long term.
6. Assist General Manager and Financial Assistant in reporting fund information to NHCRCWA Board.
7. Assist with financial presentations to member boards on financing options in converting to an alternate water supply.





JOHNSON RADCLIFFE  
PETROV & BOBBITT PLLC

TELECOPIER COVER PAGE

<b>TO:</b>	<b>NAME</b>	<b>COMPANY/PHONE NUMBER</b>	<b>FAX NUMBER</b>
	Cynthia Plunkett	281/440-3924	281/440-4104

<b>FROM:</b>	Robin S. Bobbit	<b>DATE:</b>	1/10/03-9:15 am
<b>cc:</b>		<b>CHARGE:</b>	#853.0000
<b>RE:</b>	NHCROWA	<b>PAGES:</b>	4

**MESSAGE:** Cyndi, per your request, attached is a copy of **The GMS Group agreement** with the Authority.

**(ORIGINALS WILL NOT BE MAILED)**

KANHCROWA\FAX Cover\Cynthia Plunkett.doc#853.0000

Please call Jessica at 713.237.1221 should you have any problems or questions regarding this fax.

**CONFIDENTIALITY NOTICE:** The documents accompanying this telecopy transmission contain confidential information which is legally privileged. The information is intended only for the use of the recipient named above. If you have received this telecopy in error, please notify us immediately by telephone to arrange for return of the original documents to us. You are hereby notified that any disclosure, copying, distribution, or action in reliance on the contents of these documents is strictly prohibited.

1001 McKinney, Suite 1000, Houston, Texas 77002-6424 Phone 713.237.1221/800.890.3058 Fax 713.237.1313

There is no Contributor Contract for the Certified Public Accountant (CPA).  
The CPA is employed at the North Harris County Regional Water Authority.

Agreement between North Harris County Regional Water Authority

and

Radcliffe Bobbitt Adams Polley PLLC



Jimmie Schindewolf, PE  
General Manager

**BOARD OF DIRECTORS**  
Kelly P. Fessler, *President*  
Alan J. Rendt, *Vice President*  
Ron Graham, *Secretary*  
James D. Pulliam, *Treasurer*  
Lenox A. Sigler, *Asst. Secretary*

July 31, 2014

Mr. Robbin S. Bobbitt  
Radcliffe Bobbitt Adams Polley PLLC  
1001 McKinney, Suite 1000  
Houston, TX 77002-6418

Re: Updated Attorney Fee Agreement

Dear Robbin:

Reference is made to your letter dated June 25, 2014 whereby you transmitted a formal letter also dated June 25, 2014, the subject of which is "Updated Attorney Fee Agreement"; which I will refer to as the Agreement in the remainder of this letter. In the proposed Agreement, you list a couple of major items that you wish to accomplish with the updated attorney fee agreement.

First of all, you propose to change the firm name as shown in the June, 2000 fee agreement (Johnson Radcliff Petrov & Bobbitt PLLC) to the new firm name, Radcliffe Bobbitt Adams Polley PLLC. Secondly, you propose that an updated hourly rate schedule that is included in the Agreement as Exhibit "A" be approved. You point out in your letter that the same hourly rates have remained in effect since June, 2000.

I have reviewed the hourly rates that you included in Exhibit "A" and find them to be in a line with rates charged by other major law firms. The fact that your firm has held the same rates for almost 14 years certainly speaks for itself. I am in concurrence with your proposed updated hourly rate schedule.

I have also reviewed the content and language of the proposed Agreement. Based on that review, I have executed the Agreement on behalf of the North Harris County Regional Water Authority with the effective date of the Agreement being July 1, 2014. I am forwarding one executed original of the Agreement to you as an enclosure with this letter and am retaining the other executed original for the Authority files.

Please allow me to compliment your firm for the excellent manner in which you and your colleagues have provided legal representation for the Authority. From a personal perspective, your performance as General Counsel for the Authority has been exemplary and we expect more of the same in the future. We are also proud to welcome Jon Polley to the RBAP team.

**RBAP**

**RADCLIFFE  
BOBBITT  
ADAMS  
POLLEY**

1001 McKinney Street  
Suite 1000  
Houston, Texas 77002-6424  
713.237.1221  
rbaplaw.com

June 25, 2014

[rbobbitt@rbaplaw.com](mailto:rbobbitt@rbaplaw.com)

*VIA EMAIL AND U.S. MAIL*

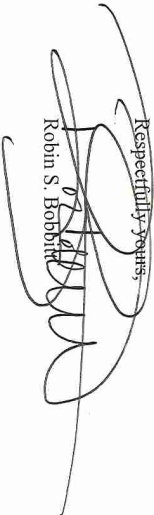
Mr. Jimmie Schindewolf, P.E., General Manager  
North Harris County Regional Water Authority  
3648 Cypress Creek Parkway, Suite 110  
Houston, Texas 77068

RE: Updated Attorney Fee Agreement

Dear Jimmie:

As we have discussed on several occasions, the hourly rates under our current attorney fee agreement with the Authority are very outdated and have not been adjusted since 2000. In addition, in light of our firm name change that took effect on June 1<sup>st</sup>, we thought it would be the appropriate time to submit an updated fee agreement (the "Agreement") to you for approval, a copy of which is enclosed.

If the proposed Agreement meets with your approval, please sign and date each of the two (2) enclosed copies where indicated and return one (1) executed original of same to us in the self-addressed, stamped envelope. Please do not hesitate to call with any questions or concerns regarding the proposed Agreement.

Respectfully yours,  
  
Robin S. Bobbitt

RSB:jlg  
Enclosures

00165779

14 JUN 27 PM 2:00:51



1001 McKinney Street  
Suite 1000  
Houston, Texas 77002-6424  
713.237.1221  
rbaplaw.com

June 25, 2014

[rbobbitt@rbaplaw.com](mailto:rbobbitt@rbaplaw.com)

Mr. Jimmie Schindewolf, P.E., General Manager  
North Harris County Regional Water Authority  
3648 Cypress Creek Parkway, Suite 110  
Houston, Texas 77068

RE: Updated Attorney Fee Agreement

Dear Mr. Schindewolf:

As you are aware, effective June 1, 2014, Johnson Radcliffe Petrov & Bobbitt PLLC ("JRPB") changed its name to Radcliffe Bobbitt Adams Polley PLLC ("RBAP") due to the departure of Andrew P. Johnson, III and Alan P. Petrov from the firm. In addition to the name change, we also added Jonathan D. Polley as a member of the firm. In light of these changes, we would like to update our fee agreement with the North Harris County Regional Water Authority (the "Authority") to reflect the new name of the firm. In addition, we would also like to propose an update to our hourly rate schedule, which has not been revised since the original fee agreement was executed in June 2000.

This letter will replace all prior fee agreements and, when accepted by you, will evidence your approval of this firm to continue as general counsel to the Authority, to be effective as of July 1, 2014. In addition, your acceptance of this letter will evidence our agreement to perform certain legal services as herein described for and on behalf of the Authority.

We agree, as may be directed by the Authority's Board of Directors ("Board") and/or the General Manager of the Authority, to attend all Board meetings and to prepare all agendas and minutes therefor. We will assist the Authority in the preparation of orders, resolutions and minutes for adoption by the Board and will maintain certain files and records for the Authority. We will also represent the Authority in contract preparation and negotiation, handle all election matters and other administrative matters and provide other general legal services which the Authority may require from time to time. All legal representation of the Authority pursuant to this engagement will be performed under the general supervision of Robin S. Bobbitt and Jonathan D. Polley.

For the services as general counsel, our fees will be determined by the time used in providing the service, the level of experience and ability of the attorney performing the service, and the difficulty and complexity of the task involved. The Authority will be billed for such work

on an hourly basis. A list of the current billing rates for the personnel who may provide legal services to the Authority is attached hereto as Exhibit "A." You will be notified in advance of any increases in the hourly rates for personnel assigned to your work. The fees will be billed from time to time as the work is performed or at such regular intervals as the Board and/or the General Manager may direct. In addition, the Authority will reimburse us for actual out-of-pocket expenses, such as printing and reproduction of documents, travel, telephone, facsimile and similar expenses, and all items paid for by us on behalf of the Authority. All of these expenses will be reasonable and subject to approval of the Board. An expense item in excess of \$250 may be referred to the Authority for direct payment.

In addition to the services described above, we will perform services as bond counsel for the Authority or, if desired by the Authority, co-bond counsel with another law firm nationally recognized as bond counsel selected by the Authority, in connection with the authorization, issuance, and sale of bonds (the "Bonds") which may be issued from time to time by the Authority. Our services as bond counsel or co-bond counsel, will include the preparation and review of legal notices, resolutions and orders for adoption by the Board, instruments required to obtain the necessary approval of the Attorney General of Texas, and all other legal documents relating to the authorization and issuance of the Bonds and registration thereof with the Comptroller of Public Accounts. In addition, we will review and prepare a transcript of certified proceedings pertaining to the Bonds, will render our bond counsel or co-bond counsel opinion that the Bonds are valid and binding obligations of the Authority and we, or a firm which we utilize for issuing tax opinions, will render an opinion that the interest on the Bonds is exempt from federal income taxation.

It is our understanding that the Authority has employed and will continue to employ a recognized investment banking firm(s) to serve as financial advisor(s) to the Authority and that said firm(s) will be responsible for advising the Authority concerning the sale of the Bonds and will assist the Authority in the preparation of an Official Notice of Sale and an Official Statement (the "Offering Documents") in connection with each issue of Bonds.

In our capacity as bond counsel or co-bond counsel, we will review those portions of the Offering Documents which describe the Authority's legal authority for issuance of the Bonds to determine whether such description conforms to and fairly summarizes relevant provisions of Texas law with regard to the sale of the Bonds. We will also review those portions of the Offering Documents describing the order of the Board authorizing the Bonds to determine whether such description fairly summarizes the provisions of said order. In addition, if requested, we will review such other portions of the Offering Documents and describe matters of law and legal relationships of the Authority about which we have knowledge. We will not, however, undertake to verify independently any of the factual information contained in the Offering Documents, nor will we conduct any investigation of the affairs of the Authority for the purpose of passing on the accuracy or completeness of the Offering Documents. Since our role in connection with the Offering Documents will be of an advisory rather than an investigatory nature, said documents will contain a statement describing our services as outlined above and stating that our limited participation may not be relied upon as an assumption of responsibility for, or an expression of

opinion of any kind with regard to, the accuracy or completeness of the information contained therein.

We will not be responsible for advising the Authority concerning the provisions of the various securities laws, including the Securities Act of 1933 and the Securities Exchange Act of 1934, and the securities laws of the various states in which the Bonds may be sold.

As bond counsel or co-bond counsel, our compensation is based upon: (a) our current understanding of the terms, structure, size of an issue and schedule of the proposed financing; (b) the duties we will undertake for each financing pursuant to this letter; (c) the time we anticipate devoting to each financing; and (d) the risk and responsibilities we assume in delivering an opinion. Such compensation is generally a percentage of the principal amount of bonds delivered at Closing. We agree to negotiate our specific fee with the Authority at the time we are authorized to begin work on each financing. If, at any time, we believe that circumstances require an adjustment of our original fee estimate, we will consult with you and request approval for a change in our fee agreement.

Should the Authority determine that it is necessary to issue refunding Bonds or bond anticipation notes or to obtain other forms of short term financing, we will serve as bond counsel or co-bond counsel, in connection with such refunding. For work performed in connection with the issuance of refunding Bonds or bond anticipation notes, we agree to negotiate our specific fee with the Authority prior to the time we are authorized to begin work on any such financing.

There shall be no individual liability of any member of the Board of the Authority for the payment of any of our fees or expenses.

This agreement may be terminated by either the Authority or by us at any time upon thirty (30) days' written notice. Upon termination of our representation, whether by us or by you, our compensation for services rendered and expenses incurred through the date of termination will be determined and billed and shall be payable in accordance with the terms of this agreement. If the Authority has authorized Bonds and, if such Bonds or any part thereof have not been registered by the Comptroller (which registration would cause our full fee to be due on the Bonds registered pursuant to the terms of this agreement), then out of the first issuance of said Bonds after termination, we shall be paid for our services relating to the approved but unregistered Bonds based upon the steps taken prior to registration, such payment to be the percentage set out below of the fee which would have been due us had the Bonds been registered. Such steps and percentages are as follow:

- (i) Bonds submitted to the Attorney General – 75%; and
- (ii) Bonds approved by the Attorney General – 95%.

All expenses incurred by us on behalf of the Authority in connection with the issuance of Bonds shall be paid.



We sincerely appreciate the opportunity to continue to work with and serve as counsel to the Authority. We look forward to working with you and your consultant team members in the years ahead. If the terms and conditions set forth above are satisfactory, please indicate your acceptance of this agreement by signature below.

Respectfully submitted,

RADCLIFFE BOBBITT ADAMS POLLEY PLLC

By: \_\_\_\_\_

Robin S. Bobbitt, Managing Member

Approved and accepted on the 31<sup>st</sup> day of July, 2014.

NORTH HARRIS COUNTY REGIONAL WATER  
AUTHORITY

By: \_\_\_\_\_

Jimmie Schindewolf, P.E.,  
General Manager

EXHIBIT "A"

RADCLIFFE ROBBITT ADAMS POLLEY PLLC

2014 BILLING RATES

Attorneys

Robin S. Bobbitt \$350 per hour  
Ross J. Radcliffe \$350 per hour  
Regina D. Adams \$300 per hour  
Jonathan Polley \$275 per hour  
Elliott Barner \$230 per hour

Paralegals

Brooke Dold \$155 per hour  
Rita Rodriguez \$140 per hour  
Diane Brewer \$130 per hour  
Carla Christensen \$130 per hour

Legal Secretaries

Janet Glass \$70 per hour  
Jessica Estrada \$70 per hour  
Darlyn Castillo \$60 per hour

Other Staff

\$55-90 per hour

Agreement between North Harris County Regional Water Authority

and

Freese and Nichols, Inc.



Jimmie Schindewolf, P.E.  
General Manager

**BOARD OF DIRECTORS**  
Kelly P. Fessler, *President*  
Alan J. Rendt, *Vice President*  
Ron Graham, *Secretary*  
James D. Pulliam, *Treasurer*  
Lenox A. Sigler, *Asst. Secretary*

August 5, 2014

Michael V. Reedy, P.E.  
Principal and Vice President  
Freese and Nichols, Inc.  
10497 Town and Country Way, Suite 600  
Houston, Texas 77024

Re: Agreement For Professional Engineering Services

Dear Mr. Reedy:

Transmitted herewith please find one fully executed duplicate original of Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and Freese & Nichols, Inc. This Agreement was approved by the Authority Board of Directors at the August 4, 2014 Board meeting. I am also sending one duplicate original to Tom Rolen (Authority Program Director), one to Robin S. Bobbitt (Authority General Counsel), and I am retaining one for the Authority contract file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

Jimmie Schindewolf, P.E.  
General Manager

JAS/lr

Attachment

Cc: Robin S. Bobbitt, Radeliffe Bobbitt Adams Polley PLLC - w/attachment  
Jon Polley, Radeliffe Bobbitt Adams Polley PLLC - w/attachment  
Tom Rolen, P.E., AECOM Technical Services, Inc. - w/attachment  
Showri Nandegiri, P.E., NHCRWA  
Cyndi Plunkett, NHCRWA - w/attachment

AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

FREESE AND NICHOLS, INC.

THE STATE OF TEXAS       §  
  §  
COUNTY OF HARRIS       §

THIS AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and Freese and Nichols, Inc. (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects;

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION I**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected as such in the detailed Scope of Services attached to the Work Authorization issued by the General Manager. A sample SCOPE OF BASIC ENGINEERING DESIGN SERVICES is attached as Appendix A-1.
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).
3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.

4. "Design Phase Agreed Estimate" shall mean the estimate of probable Construction Cost for a Construction Package developed at the completion of the approved Preliminary Engineering Phase, updated at the completion of the Design Phase and agreed to in writing by the General Manager and the Engineer.
5. "Preliminary Phase Agreed Estimate" shall mean the estimate of probable Construction Cost developed and agreed to in writing by the General Manager and the Engineer prior to commencing work on the Preliminary Engineering Phase of the Project. This agreed estimate applies only to the Preliminary Engineering Phase.
6. "Program Manager" shall mean the Authority's manager of its water supply program.
7. "Project" shall mean a design and/or construction project of the Authority authorized by the General Manager through the issuance of a Work Authorization.

## SECTION II

### CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Agreement, the General Manager of the Authority or his designee (hereinafter the "General Manager") may deliver to the Engineer written authorization (hereinafter known as "Work Authorization") in accordance with this Section for the performance of certain professional services with regard to specified Authority projects, which services the Engineer shall then perform in accordance with this Agreement. The General Manager may authorize the Engineer to provide all or any of the engineering and related services that are listed in **Appendices A and A-1**, attached hereto and made a part hereof.

The Authority shall have no obligation to pay for any services hereunder that have been rendered without the prior Work Authorization of the General Manager. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the Authority with progress reports at such times and in such manner as may be requested by the General Manager. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the General Manager as soon as possible.

## SECTION III

### TIME OF PERFORMANCE

Upon receipt of a Work Authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The Authority shall have no obligation to pay for a service performed after the required completion date for same, as set forth in its Work Authorization, except to the extent the

date for required completion is extended and continuation of such service is approved by the General Manager.

#### SECTION IV

##### THE ENGINEER'S COMPENSATION

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blueprint drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof, costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Agreement are described as follows:

##### Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

#### Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

#### Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in **Appendix C**.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.

For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.



2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.

3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.

The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### SECTION V

#### TIME OF PAYMENT

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager", in a form suitable to the Authority, setting forth the services provided under this Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person performing the services and countersigned by his/her supervisor certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Agreement have been performed. Within

forty-five (45) days after the performance of all services provided for in this Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

**SECTION VI  
TERMINATION**

Either party may terminate this Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Agreement, less such payments on account of the charges as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Agreement shall be delivered to the Authority when and if this Agreement is terminated.

**SECTION VII  
NOTICE**

Any notice required to be given under the provisions of this Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Agreement, all notices shall be delivered to the following addresses:

To the Engineer:      Freese and Nichols, Inc.  
                                 10497 Town and Country Way, Suite 600  
                                 Houston, Texas 77024

Attention:            Michael V. Reedy, P.E.

To the Authority:      North Harris County Regional Water Authority  
                                 3648 Cypress Creek Pkwy., Suite 110  
                                 Houston, Texas 77068

Attention:            General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### **SECTION VIII**

#### **SUCCESSORS AND ASSIGNS**

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Agreement. Neither the Authority nor the Engineer shall assign, sublet, or transfer its or his/her interest in this Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

#### **SECTION IX**

#### **PUBLIC CONTACT**

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Agreement or any requested service shall be referred to the General Manager.

#### **SECTION X**

#### **COMPLIANCE AND STANDARDS**

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### **SECTION XI**

#### **LICENSE REQUIREMENTS**

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Agreement.

## SECTION XII

### INSURANCE AND INDEMNIFICATION

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Agreement and that of its subcontractors or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subcontractants (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.

## SECTION XIII

### OWNERSHIP OF PLANS, COPYRIGHT, AND OTHER INTELLECTUAL PROPERTY

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproductions, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Agreement.

Copies of all complete or partially complete information, programs, Mylar reproductions, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Agreement, shall also be delivered by the Engineer to the General Manager when and if this Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

**SECTION XIV  
MODIFICATIONS**

This instrument contains the entire Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

**SECTION XV**

**AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Agreement and all questions as to the acceptable fulfillment of this Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Agreement.

**SECTION XVI**

**SEVERABILITY**

Any provision or part of this Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**SECTION XVII**

**MERGER**

The Parties agree that this Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Agreement.

[The remainder of this page intentionally left blank.]

**SECTION XVIII  
EXECUTION**

The Authority executes this Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Agreement shall not become effective until executed by all parties hereto.

NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

By:   
Pamela P. Fessler, President

Date Signed: 8-4-14

ATTEST:


By:   
Ron Grahn, Secretary

(AUTHORITY SEAL)

APPROVED:

By:   
Jannie Schindewolf, P.E.  
General Manager

FRESE AND NICHOLS, INC.

By:   
Michael V. Reedy, P.E.  
Vice President  
Date Signed: August 2, 2014

ATTEST:

By: duffy began  
Name Dorothy Bergesen  
Title: Project Controls Specialist



APPENDIX A

SCOPE OF SERVICES

(Freese and Nichols, Inc.)

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see Appendix A-1) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnections, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.

APPENDIX A-1

SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES

(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

1. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternative water line alignments considering all relevant factors and prepare schematic layouts for each alternative route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.

2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues.

- associated with such submittals within fourteen (14) calendar days of receipt of submittals from the Program Manager.
- e. Prepare revisions to the contract documents (i.e., change orders) at no charge to the Authority when such change orders are required to make clarifications, correct discrepancies, errors or omissions to the contract documents.
  - f. When requested by the Program Manager, evaluate contractor changes and cost proposals and recommend action to the Program Manager.
  - g. Make monthly site visits to the Project site to observe the progress and quality of the executed work. Such site visits are to be coordinated with the Program Manager and a site visit report shall be submitted to the Program Manager after each such site visit, indicating observations related to the executed work.
  - h. Attend final Project walkthrough.
  - i. Prepare "record drawings" indicating changes to the contract drawings and showing significant changes made to the work during the construction of the Project. Such changes will be based upon marked-up "record drawings" furnished to the Engineer by the Program Manager and the construction contractor.

APPENDIX B  
HOURLY BILLING RATES  
Freese and Nichols, Inc.

<u>Classification</u>	<u>Hourly Rates</u>
Principal	\$272
Group Manager	\$238
Engineer VI	\$223
Engineer V	\$193
Engineer IV	\$160
Engineer III (E.I.T.)	\$130
Engineer II (E.I.T.)	\$112
Engineer I (E.I.T.)	\$105
Technician IV	\$114
Technician III	\$88
Construction Manager V	\$190
Construction Manager IV	\$150
Construction Manager III	\$135
Construction Manager II	\$115
Construction Manager I	\$90
Environmental Scientist VIII	\$241
Environmental Scientist VII	\$216
Environmental Scientist VI	\$195
Environmental Scientist V	\$160
Environmental Scientist IV	\$136
Environmental Scientist III	\$97
Environmental Scientist II	\$86
Environmental Scientist I	\$75
Hydrologist VII	\$208
Hydrologist V	\$147
Hydrologist IV	\$139
GIS Analyst IV	\$140
GIS Analyst III	\$128
GIS Analyst II	\$71
GIS Analyst I	\$59
Admin/Corporate Support	\$81
Project Controls Specialist II	\$88
Intern	\$49

- Notes: (1) Additional classifications and subsequent year rates must be approved in writing by the General Manager.
- (2) Subconsultant costs and other miscellaneous expenses as approved by the General Manager will be paid at cost plus 10%

APPENDIX C

CITY OF HOUSTON CURVES FOR MEDIAN COMPENSATION

(Preese and Nichols, Inc.)



**CITY OF HOUSTON**  
Public Works and Engineering  
Department

Lee P. Brown

Mayor

Jon C. Vanden Baack, P.E.  
Director  
Public Works & Engineering  
Department  
P.O. Box 1582  
Houston, Texas 77251-1582  
T: 713.637.0037  
F: 713.637.0040  
www.cityofhouston.gov

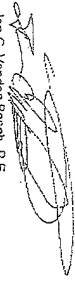
July 15, 2002

Christina M. Lindsay, Executive Director  
Houston - CEO  
2020 Nolli Loop West, Suite 240  
Houston, Texas 77019

Dear Ms. Lindsay:

PW&E has adopted the revised Curves of Median Compensation attached hereto. These curves and/or the associated tables will be used for determining the engineering fees as appropriate in this Department until further notice.

Sincerely,

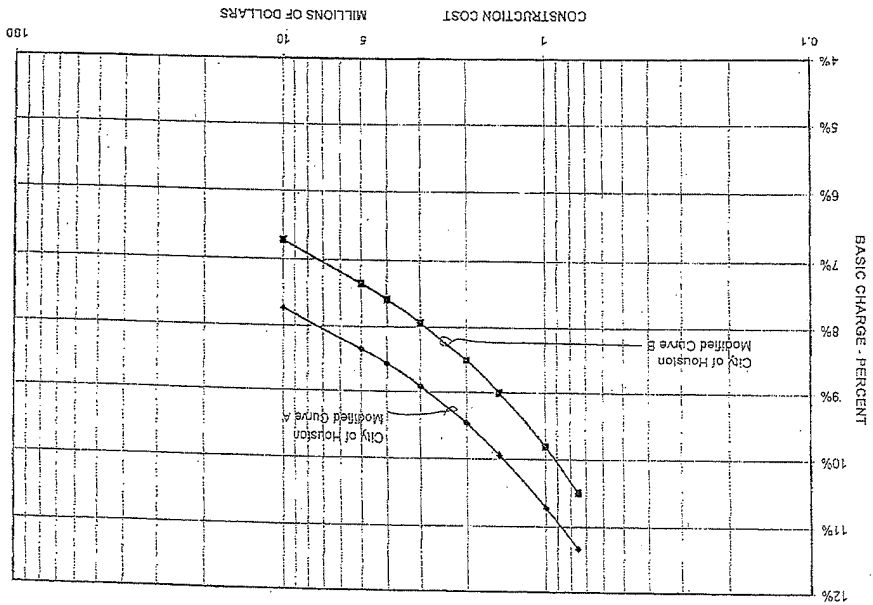


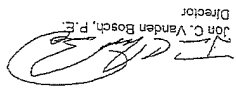
Jon C. Vanden Baack, P.E.  
Director  
Department of Public Works and Engineering

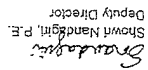
CC: Shawn Mandayni, P.E.

Jeff Taylor  
Eric Dargan  
Rick Vazar – Aviation Department  
Monique MacGibira – Building Services Department

Contact Numbers: Bruce Tatro, Curator, Galleria, Main Building, Jada Edwards, Jaden Hernandez, Mark A. Ellis, Dan Keller, Gabriela Vazquez, Chad Hernandez  
Arnell D. Pinner, Aviation Team, Stanley Sotter, Steve King, Matthew Terry, Scott G. Robinson, Counselor, Sylvia R. Davis



  
 John C. Vanden Bosch, P.E.  
 Director

  
 Shawn Mandigit, P.E.  
 Deputy Director

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
 Curves of Median Compensation  
 Curves A and B



MODIFIED CURVE A

Coast of Construction In Millions	Percent	Fee
0.750	11.347%	\$85,089.31
0.775	11.270%	\$87,399.27
0.800	11.188%	\$89,989.35
0.825	11.102%	\$91,789.87
0.850	11.059%	\$94,001.54
0.875	10.985%	\$96,204.43
0.900	10.883%	\$98,398.99
0.925	10.817%	\$100,585.53
0.950	10.817%	\$102,764.36
1.000	10.763%	\$104,935.76
1.025	10.710%	\$107,100.00
1.050	10.658%	\$109,257.33
1.075	10.610%	\$111,407.88
1.100	10.563%	\$113,552.17
1.125	10.517%	\$115,690.11
1.150	10.473%	\$117,822.01
1.175	10.430%	\$119,948.05
1.200	10.389%	\$122,068.40
1.225	10.349%	\$124,183.25
1.250	10.310%	\$126,292.73
1.275	10.272%	\$128,397.02
1.300	10.235%	\$130,496.25
1.325	10.199%	\$132,590.56
1.350	10.165%	\$134,680.08
1.375	10.131%	\$136,764.95
1.400	10.098%	\$138,845.28
1.425	10.065%	\$140,921.18
1.450	10.032%	\$142,992.77
1.475	10.004%	\$145,060.15
1.500	9.974%	\$147,123.43
1.525	9.946%	\$149,182.70
1.550	9.917%	\$151,238.05
1.575	9.890%	\$153,289.58
1.600	9.863%	\$155,337.36
1.625	9.836%	\$157,381.49
1.650	9.811%	\$159,422.05
1.675	9.785%	\$161,459.10
1.700	9.761%	\$163,492.73
1.725	9.737%	\$165,523.00
1.750	9.713%	\$167,549.99
1.775	9.690%	\$169,573.76
1.800	9.645%	\$171,594.37
1.825	9.623%	\$173,611.90
1.850	9.602%	\$175,626.59
1.875	9.581%	\$177,639.90
1.900	9.561%	\$179,646.50
		\$181,652.24

MODIFIED CURVE B

Coast of Construction In Millions	Percent	Fee
0.750	10.489%	\$78,668.84
0.775	10.407%	\$80,655.49
0.800	10.329%	\$82,632.09
0.825	10.254%	\$84,599.09
0.850	10.183%	\$86,556.88
0.875	10.116%	\$88,505.86
0.900	10.050%	\$90,446.37
0.925	9.987%	\$92,378.74
0.950	9.927%	\$94,303.28
0.975	9.869%	\$96,220.27
1.000	9.813%	\$98,130.00
1.025	9.759%	\$100,032.71
1.050	9.707%	\$101,928.64
1.075	9.657%	\$103,818.01
1.100	9.609%	\$105,701.05
1.125	9.562%	\$107,577.86
1.150	9.517%	\$109,448.91
1.175	9.443%	\$111,314.10
1.200	9.380%	\$113,173.70
1.225	9.320%	\$115,027.88
1.250	9.261%	\$116,876.75
1.275	9.211%	\$118,720.62
1.300	9.161%	\$120,559.29
1.325	9.124%	\$122,393.22
1.350	9.102%	\$124,222.42
1.375	9.163%	\$126,047.02
1.400	9.101%	\$127,867.13
1.425	9.101%	\$129,682.87
1.450	9.057%	\$131,494.56
1.500	9.007%	\$133,301.86
1.525	8.948%	\$135,104.92
1.550	8.948%	\$136,904.20
1.575	8.920%	\$138,699.61
1.600	8.882%	\$140,491.22
1.625	8.865%	\$142,279.13
1.650	8.839%	\$144,063.42
1.675	8.813%	\$145,844.16
1.700	8.789%	\$147,621.43
1.725	8.769%	\$149,395.31
1.750	8.749%	\$151,165.65
1.775	8.715%	\$152,933.14
1.800	8.692%	\$154,697.23
1.825	8.669%	\$156,458.18
1.850	8.647%	\$158,216.07
1.875	8.625%	\$159,970.55
1.900	8.604%	\$161,722.87
		\$163,471.88

MODIFIED CURVE A				MODIFIED CURVE B				
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
1.925	9.541%	\$193,655.17	1.925	8.583%	\$185,218.06	1.925	8.583%	\$185,218.06
1.950	9.527%	\$193,693.33	1.950	8.582%	\$186,961.44	1.950	8.582%	\$186,961.44
1.975	9.501%	\$197,652.79	1.975	8.542%	\$168,102.07	1.975	8.542%	\$168,102.07
2.000	9.482%	\$189,647.58	2.000	8.522%	\$170,448.01	2.000	8.522%	\$170,448.01
2.025	9.464%	\$191,639.76	2.025	8.502%	\$172,178.30	2.025	8.502%	\$172,178.30
2.050	9.446%	\$193,629.97	2.050	8.483%	\$173,907.99	2.050	8.483%	\$173,907.99
2.075	9.427%	\$196,616.46	2.075	8.464%	\$175,638.12	2.075	8.464%	\$175,638.12
2.100	9.410%	\$197,601.06	2.100	8.446%	\$177,368.74	2.100	8.446%	\$177,368.74
2.125	9.392%	\$199,583.21	2.125	8.428%	\$179,099.89	2.125	8.428%	\$179,099.89
2.150	9.375%	\$201,562.97	2.150	8.410%	\$180,831.60	2.150	8.410%	\$180,831.60
2.175	9.358%	\$203,540.36	2.175	8.392%	\$182,563.92	2.175	8.392%	\$182,563.92
2.200	9.342%	\$205,515.43	2.200	8.375%	\$184,291.86	2.200	8.375%	\$184,291.86
2.225	9.325%	\$207,488.21	2.225	8.358%	\$186,020.91	2.225	8.358%	\$186,020.91
2.250	9.309%	\$209,458.74	2.250	8.341%	\$187,749.95	2.250	8.341%	\$187,749.95
2.275	9.293%	\$211,427.05	2.275	8.325%	\$189,482.03	2.275	8.325%	\$189,482.03
2.300	9.278%	\$213,393.18	2.300	8.309%	\$191,209.95	2.300	8.309%	\$191,209.95
2.325	9.263%	\$215,357.16	2.325	8.293%	\$192,937.70	2.325	8.293%	\$192,937.70
2.350	9.248%	\$217,319.03	2.350	8.277%	\$194,665.18	2.350	8.277%	\$194,665.18
2.375	9.233%	\$219,278.81	2.375	8.262%	\$196,392.30	2.375	8.262%	\$196,392.30
2.400	9.218%	\$221,236.53	2.400	8.246%	\$198,119.19	2.400	8.246%	\$198,119.19
2.425	9.204%	\$223,192.23	2.425	8.231%	\$199,845.85	2.425	8.231%	\$199,845.85
2.450	9.190%	\$225,145.94	2.450	8.217%	\$201,572.30	2.450	8.217%	\$201,572.30
2.475	9.176%	\$227,097.68	2.475	8.202%	\$203,300.25	2.475	8.202%	\$203,300.25
2.500	9.162%	\$229,047.48	2.500	8.188%	\$205,028.63	2.500	8.188%	\$205,028.63
2.525	9.148%	\$230,996.37	2.525	8.174%	\$206,757.09	2.525	8.174%	\$206,757.09
2.550	9.135%	\$232,941.37	2.550	8.160%	\$208,485.63	2.550	8.160%	\$208,485.63
2.575	9.122%	\$234,885.52	2.575	8.146%	\$209,214.16	2.575	8.146%	\$209,214.16
2.600	9.108%	\$236,827.83	2.600	8.133%	\$210,942.30	2.600	8.133%	\$210,942.30
2.625	9.096%	\$238,768.33	2.625	8.119%	\$212,670.10	2.625	8.119%	\$212,670.10
2.650	9.083%	\$240,707.05	2.650	8.106%	\$214,397.25	2.650	8.106%	\$214,397.25
2.675	9.071%	\$242,644.01	2.675	8.093%	\$216,124.64	2.675	8.093%	\$216,124.64
2.700	9.058%	\$244,579.23	2.700	8.080%	\$217,852.27	2.700	8.080%	\$217,852.27
2.725	9.046%	\$246,512.73	2.725	8.068%	\$219,579.16	2.725	8.068%	\$219,579.16
2.750	9.034%	\$248,444.54	2.750	8.055%	\$221,306.34	2.750	8.055%	\$221,306.34
2.775	9.023%	\$250,374.68	2.775	8.043%	\$223,033.83	2.775	8.043%	\$223,033.83
2.800	9.011%	\$252,303.17	2.800	8.031%	\$224,761.65	2.800	8.031%	\$224,761.65
2.825	9.001%	\$254,230.02	2.825	8.019%	\$226,489.82	2.825	8.019%	\$226,489.82
2.850	8.989%	\$256,155.27	2.850	8.007%	\$228,218.35	2.850	8.007%	\$228,218.35
2.875	8.977%	\$258,078.93	2.875	7.995%	\$229,947.28	2.875	7.995%	\$229,947.28
2.900	8.966%	\$260,001.02	2.900	7.984%	\$231,676.40	2.900	7.984%	\$231,676.40
2.925	8.955%	\$261,921.56	2.925	7.972%	\$233,405.62	2.925	7.972%	\$233,405.62
2.950	8.944%	\$263,840.57	2.950	7.961%	\$235,135.30	2.950	7.961%	\$235,135.30
2.975	8.933%	\$265,758.05	2.975	7.950%	\$236,864.48	2.975	7.950%	\$236,864.48
3.000	8.922%	\$267,674.05	3.000	7.939%	\$238,593.15	3.000	7.939%	\$238,593.15
3.025	8.912%	\$269,588.57	3.025	7.928%	\$241,322.35	3.025	7.928%	\$241,322.35
3.050	8.902%	\$271,501.62	3.050	7.917%	\$243,051.06	3.050	7.917%	\$243,051.06
3.075	8.891%	\$273,413.23	3.075	7.907%	\$244,779.09	3.075	7.907%	\$244,779.09

MODIFIED CURVE A				MODIFIED CURVE B				
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
3,100	8.881%	\$275,323.41	3,100	7.896%	\$244,708.37	3,100	7.896%	\$244,708.37
3,125	8.871%	\$277,232.18	3,125	7.896%	\$246,439.23	3,125	7.896%	\$246,439.23
3,150	8.862%	\$279,139.45	3,150	7.878%	\$248,088.69	3,150	7.878%	\$248,088.69
3,175	8.862%	\$281,046.94	3,175	7.869%	\$249,738.73	3,175	7.869%	\$249,738.73
3,200	8.842%	\$282,950.17	3,200	7.869%	\$251,383.40	3,200	7.869%	\$251,383.40
3,225	8.833%	\$284,853.44	3,225	7.848%	\$253,028.70	3,225	7.848%	\$253,028.70
3,250	8.823%	\$286,753.38	3,250	7.838%	\$254,672.65	3,250	7.838%	\$254,672.65
3,275	8.814%	\$288,658.00	3,275	7.828%	\$256,314.26	3,275	7.828%	\$256,314.26
3,300	8.805%	\$290,553.31	3,300	7.817%	\$257,955.55	3,300	7.817%	\$257,955.55
3,325	8.795%	\$292,453.33	3,325	7.807%	\$259,596.59	3,325	7.807%	\$259,596.59
3,350	8.787%	\$294,350.07	3,350	7.798%	\$261,235.21	3,350	7.798%	\$261,235.21
3,375	8.778%	\$296,245.55	3,375	7.789%	\$262,872.92	3,375	7.789%	\$262,872.92
3,400	8.769%	\$298,139.77	3,400	7.780%	\$264,508.19	3,400	7.780%	\$264,508.19
3,425	8.760%	\$300,032.75	3,425	7.771%	\$266,143.04	3,425	7.771%	\$266,143.04
3,450	8.751%	\$301,924.50	3,450	7.762%	\$267,777.28	3,450	7.762%	\$267,777.28
3,475	8.743%	\$303,815.04	3,475	7.753%	\$269,409.89	3,475	7.753%	\$269,409.89
3,500	8.734%	\$305,704.38	3,500	7.744%	\$271,040.88	3,500	7.744%	\$271,040.88
3,525	8.726%	\$307,592.53	3,525	7.735%	\$272,670.99	3,525	7.735%	\$272,670.99
3,550	8.718%	\$309,479.50	3,550	7.727%	\$274,299.97	3,550	7.727%	\$274,299.97
3,575	8.710%	\$311,365.30	3,575	7.718%	\$275,927.29	3,575	7.718%	\$275,927.29
3,600	8.701%	\$313,249.95	3,600	7.710%	\$277,553.14	3,600	7.710%	\$277,553.14
3,625	8.693%	\$315,133.45	3,625	7.701%	\$279,178.03	3,625	7.701%	\$279,178.03
3,650	8.685%	\$317,015.82	3,650	7.693%	\$280,802.19	3,650	7.693%	\$280,802.19
3,675	8.677%	\$318,897.07	3,675	7.685%	\$282,426.19	3,675	7.685%	\$282,426.19
3,700	8.670%	\$320,777.21	3,700	7.677%	\$284,048.07	3,700	7.677%	\$284,048.07
3,725	8.662%	\$322,656.25	3,725	7.669%	\$285,668.34	3,725	7.669%	\$285,668.34
3,750	8.654%	\$324,534.20	3,750	7.661%	\$287,288.61	3,750	7.661%	\$287,288.61
3,775	8.647%	\$326,411.07	3,775	7.653%	\$288,907.00	3,775	7.653%	\$288,907.00
3,800	8.639%	\$328,286.87	3,800	7.645%	\$290,524.58	3,800	7.645%	\$290,524.58
3,825	8.632%	\$330,161.61	3,825	7.638%	\$292,141.00	3,825	7.638%	\$292,141.00
3,850	8.624%	\$332,035.30	3,850	7.630%	\$293,756.36	3,850	7.630%	\$293,756.36
3,875	8.617%	\$333,907.95	3,875	7.622%	\$295,370.88	3,875	7.622%	\$295,370.88
3,900	8.610%	\$335,779.57	3,900	7.615%	\$296,983.93	3,900	7.615%	\$296,983.93
3,925	8.603%	\$337,650.17	3,925	7.608%	\$298,596.15	3,925	7.608%	\$298,596.15
3,950	8.595%	\$339,519.75	3,950	7.600%	\$300,207.36	3,950	7.600%	\$300,207.36
3,975	8.588%	\$341,388.33	3,975	7.593%	\$301,817.58	3,975	7.593%	\$301,817.58
4,000	8.581%	\$343,255.92	4,000	7.586%	\$303,426.73	4,000	7.586%	\$303,426.73
4,025	8.574%	\$345,122.52	4,025	7.579%	\$305,034.91	4,025	7.579%	\$305,034.91
4,050	8.566%	\$346,988.16	4,050	7.571%	\$306,642.11	4,050	7.571%	\$306,642.11
4,075	8.558%	\$348,852.81	4,075	7.564%	\$308,248.32	4,075	7.564%	\$308,248.32
4,100	8.554%	\$350,716.50	4,100	7.557%	\$309,853.56	4,100	7.557%	\$309,853.56
4,125	8.547%	\$352,579.25	4,125	7.550%	\$311,457.04	4,125	7.550%	\$311,457.04
4,150	8.541%	\$354,441.05	4,150	7.544%	\$313,061.17	4,150	7.544%	\$313,061.17
4,175	8.534%	\$356,301.91	4,175	7.537%	\$314,663.55	4,175	7.537%	\$314,663.55
4,200	8.528%	\$358,161.85	4,200	7.530%	\$316,264.89	4,200	7.530%	\$316,264.89
4,225	8.521%	\$360,020.87	4,225	7.523%	\$317,865.49	4,225	7.523%	\$317,865.49
4,250	8.515%	\$361,879.98	4,250	7.517%	\$319,465.08	4,250	7.517%	\$319,465.08

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
4.275	8.508%	\$363,736.18	4.275	7.510%	\$321,033.75		
4.300	8.502%	\$365,592.48	4.300	7.509%	\$321,881.57		
4.325	8.498%	\$367,447.80	4.325	7.497%	\$324,238.37		
4.350	8.490%	\$369,302.43	4.350	7.481%	\$326,054.33		
4.375	8.484%	\$371,156.09	4.375	7.469%	\$327,449.41		
4.400	8.477%	\$373,008.89	4.400	7.462%	\$328,043.61		
4.425	8.471%	\$374,860.80	4.425	7.459%	\$330,585.94		
4.450	8.465%	\$376,711.88	4.450	7.450%	\$332,229.41		
4.475	8.459%	\$378,562.10	4.475	7.448%	\$333,821.01		
4.500	8.454%	\$380,411.49	4.500	7.442%	\$335,411.77		
4.525	8.448%	\$382,260.04	4.525	7.436%	\$336,980.75		
4.550	8.442%	\$384,107.76	4.550	7.430%	\$338,538.00		
4.575	8.436%	\$385,954.68	4.575	7.424%	\$340,178.99		
4.600	8.430%	\$387,800.75	4.600	7.418%	\$341,768.41		
4.625	8.425%	\$389,646.03	4.625	7.412%	\$343,383.00		
4.650	8.419%	\$391,490.50	4.650	7.407%	\$344,938.79		
4.675	8.414%	\$393,334.18	4.675	7.401%	\$346,523.77		
4.700	8.408%	\$395,177.07	4.700	7.395%	\$348,107.94		
4.725	8.403%	\$397,019.17	4.725	7.390%	\$349,691.33		
4.750	8.397%	\$398,860.50	4.750	7.384%	\$351,273.92		
4.775	8.392%	\$400,701.05	4.775	7.379%	\$352,855.74		
4.800	8.386%	\$402,540.33	4.800	7.373%	\$354,436.77		
4.825	8.381%	\$404,379.36	4.825	7.368%	\$356,017.04		
4.850	8.376%	\$406,218.13	4.850	7.362%	\$357,596.54		
4.875	8.370%	\$408,056.64	4.875	7.357%	\$359,175.28		
4.900	8.365%	\$409,892.42	4.900	7.352%	\$360,753.26		
4.925	8.360%	\$411,728.45	4.925	7.346%	\$362,330.50		
4.950	8.355%	\$413,563.75	4.950	7.341%	\$363,906.99		
4.975	8.350%	\$415,398.32	4.975	7.336%	\$365,482.75		
5.000	8.345%	\$417,232.17	5.000	7.331%	\$367,057.77		
5.025	8.340%	\$419,065.29	5.025	7.326%	\$368,632.07		
5.050	8.335%	\$420,897.71	5.050	7.321%	\$370,205.64		
5.075	8.330%	\$422,729.42	5.075	7.316%	\$371,778.50		
5.100	8.325%	\$424,560.42	5.100	7.311%	\$373,350.64		
5.125	8.320%	\$426,390.72	5.125	7.306%	\$374,922.07		
5.150	8.315%	\$428,220.33	5.150	7.301%	\$376,492.81		
5.175	8.310%	\$430,049.25	5.175	7.296%	\$378,062.84		
5.200	8.305%	\$431,877.49	5.200	7.291%	\$379,632.18		
5.225	8.300%	\$433,705.05	5.225	7.286%	\$381,200.83		
5.250	8.295%	\$435,531.93	5.250	7.281%	\$382,768.80		
5.275	8.291%	\$437,358.14	5.275	7.276%	\$384,336.09		
5.300	8.286%	\$439,183.69	5.300	7.271%	\$385,902.71		
5.325	8.282%	\$441,008.57	5.325	7.266%	\$387,468.66		
5.350	8.277%	\$442,832.80	5.350	7.262%	\$389,033.94		
5.375	8.273%	\$444,656.37	5.375	7.257%	\$390,598.56		
5.400	8.268%	\$446,479.30	5.400	7.253%	\$392,162.52		
5.425	8.264%	\$448,301.58	5.425	7.248%	\$393,725.83		

MODIFIED CURVE A

Cost of Construction in Millions	Percent	Fee
5.450	8.269%	\$460,123,222
5.475	8.255%	\$461,944,222
5.500	8.250%	\$463,764,500
5.525	8.246%	\$465,584,344
5.550	8.242%	\$467,403,477
5.575	8.237%	\$469,221,977
5.600	8.233%	\$471,039,866
5.625	8.229%	\$472,857,133
5.650	8.224%	\$474,673,800
5.675	8.220%	\$476,489,866
5.700	8.216%	\$478,305,333
5.725	8.212%	\$479,120,199
5.750	8.208%	\$479,934,477
5.775	8.203%	\$479,748,155
5.800	8.199%	\$479,561,222
5.825	8.195%	\$479,373,777
5.850	8.191%	\$479,185,711
5.875	8.187%	\$478,997,077
5.900	8.183%	\$478,807,866
5.925	8.179%	\$478,618,099
5.950	8.175%	\$478,427,775
5.975	8.171%	\$478,236,855
6.000	8.167%	\$478,045,339
6.025	8.164%	\$477,853,377
6.050	8.160%	\$477,660,811
6.075	8.156%	\$477,467,688
6.100	8.152%	\$477,274,044
6.125	8.148%	\$477,079,944
6.150	8.144%	\$476,884,100
6.175	8.141%	\$476,688,402
6.200	8.137%	\$476,492,402
6.225	8.133%	\$476,297,666
6.250	8.130%	\$476,100,822
6.275	8.126%	\$475,903,444
6.300	8.122%	\$475,705,633
6.325	8.119%	\$475,507,111
6.350	8.116%	\$475,308,177
6.375	8.112%	\$475,108,722
6.400	8.108%	\$474,908,777
6.425	8.104%	\$474,708,330
6.450	8.101%	\$474,507,344
6.475	8.097%	\$474,305,877
6.500	8.094%	\$474,103,911
6.525	8.091%	\$473,901,466
6.550	8.087%	\$473,698,500
6.575	8.084%	\$473,495,055
6.600	8.080%	\$473,291,113

MODIFIED CURVE B

Cost of Construction in Millions	Percent	Fee
6.450	7.263%	\$385,288,49
6.475	7.248%	\$386,650,51
6.500	7.234%	\$388,011,88
6.525	7.239%	\$389,372,63
6.550	7.236%	\$390,732,74
6.575	7.230%	\$392,092,22
6.600	7.226%	\$393,451,08
6.625	7.221%	\$394,809,32
6.650	7.217%	\$396,166,94
6.675	7.213%	\$397,523,95
6.700	7.209%	\$398,880,35
6.725	7.204%	\$399,238,15
6.750	7.200%	\$399,594,35
6.775	7.196%	\$399,949,96
6.800	7.191%	\$400,304,96
6.825	7.187%	\$400,659,38
6.850	7.183%	\$401,013,23
6.875	7.179%	\$401,366,46
6.900	7.175%	\$401,719,07
6.925	7.171%	\$402,071,11
6.950	7.167%	\$402,422,75
6.975	7.163%	\$402,773,99
7.000	7.159%	\$403,124,82
7.025	7.155%	\$403,475,24
7.050	7.151%	\$403,825,25
7.075	7.147%	\$404,174,86
7.100	7.143%	\$404,523,97
7.125	7.139%	\$404,872,58
7.150	7.135%	\$405,220,69
7.175	7.131%	\$405,568,29
7.200	7.127%	\$405,915,39
7.225	7.123%	\$406,261,89
7.250	7.119%	\$406,607,80
7.275	7.115%	\$406,953,20
7.300	7.112%	\$407,300,00
7.325	7.108%	\$407,646,20
7.350	7.105%	\$407,991,80
7.375	7.101%	\$408,337,80
7.400	7.097%	\$408,683,30
7.425	7.094%	\$409,029,30
7.450	7.090%	\$409,374,80
7.475	7.086%	\$409,719,80
7.500	7.083%	\$410,064,30
7.525	7.079%	\$410,409,30
7.550	7.075%	\$410,753,80
7.575	7.072%	\$411,098,32
7.600	7.069%	\$411,442,84

MODIFIED CURVE A

MODIFIED CURVE A				MODIFIED CURVE B				
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
6.825	8.077%	\$535,086.72	6.625	7.065%	\$468,071.34	6.625	7.065%	\$468,071.34
6.850	8.073%	\$536,891.83	6.650	7.082%	\$469,602.12	6.650	7.082%	\$471,424.41
6.875	8.070%	\$539,676.46	6.675	7.098%	\$471,424.41	6.675	7.098%	\$472,977.21
6.900	8.067%	\$540,470.61	6.700	7.093%	\$472,977.21	6.700	7.093%	\$474,511.54
6.925	8.063%	\$542,284.28	6.725	7.091%	\$474,511.54	6.725	7.091%	\$476,045.30
6.950	8.060%	\$544,087.49	6.750	7.048%	\$476,045.30	6.750	7.048%	\$477,578.76
6.975	8.057%	\$546,880.23	6.775	7.045%	\$477,578.76	6.775	7.045%	\$479,111.66
6.800	8.054%	\$547,642.50	6.800	7.041%	\$479,111.66	6.800	7.041%	\$480,644.09
6.825	8.050%	\$549,434.31	6.825	7.038%	\$480,644.09	6.825	7.038%	\$481,187.05
6.850	8.047%	\$551,225.65	6.850	7.035%	\$481,187.05	6.850	7.035%	\$482,720.05
6.875	8.044%	\$553,016.54	6.875	7.031%	\$482,720.05	6.875	7.031%	\$484,253.05
6.900	8.041%	\$554,806.97	6.900	7.028%	\$484,253.05	6.900	7.028%	\$485,786.05
6.925	8.038%	\$556,596.95	6.925	7.025%	\$485,786.05	6.925	7.025%	\$487,319.05
6.950	8.034%	\$558,386.47	6.950	7.022%	\$487,319.05	6.950	7.022%	\$488,852.05
6.975	8.031%	\$560,175.55	6.975	7.018%	\$488,852.05	6.975	7.018%	\$490,385.05
7.000	8.028%	\$561,964.17	7.000	7.015%	\$490,385.05	7.000	7.015%	\$491,918.05
7.025	8.025%	\$563,752.35	7.025	7.012%	\$492,458.05	7.025	7.012%	\$493,451.05
7.050	8.022%	\$565,540.09	7.050	7.009%	\$493,451.05	7.050	7.009%	\$494,984.04
7.075	8.019%	\$567,327.39	7.075	7.006%	\$494,984.04	7.075	7.006%	\$496,517.04
7.100	8.016%	\$569,114.25	7.100	7.002%	\$496,517.04	7.100	7.002%	\$498,050.04
7.125	8.013%	\$570,900.67	7.125	6.999%	\$498,050.04	7.125	6.999%	\$499,583.04
7.150	8.010%	\$572,686.66	7.150	6.996%	\$499,583.04	7.150	6.996%	\$501,116.04
7.175	8.007%	\$574,472.22	7.175	6.993%	\$501,116.04	7.175	6.993%	\$502,649.04
7.200	8.004%	\$576,257.35	7.200	6.990%	\$502,649.04	7.200	6.990%	\$504,182.04
7.225	8.001%	\$578,042.05	7.225	6.987%	\$504,182.04	7.225	6.987%	\$505,715.04
7.250	7.998%	\$579,826.32	7.250	6.984%	\$505,715.04	7.250	6.984%	\$507,248.04
7.275	7.995%	\$581,610.18	7.275	6.981%	\$507,248.04	7.275	6.981%	\$508,781.04
7.300	7.992%	\$583,393.61	7.300	6.978%	\$508,781.04	7.300	6.978%	\$510,314.04
7.325	7.989%	\$585,176.62	7.325	6.975%	\$510,314.04	7.325	6.975%	\$511,847.04
7.350	7.986%	\$586,959.21	7.350	6.972%	\$511,847.04	7.350	6.972%	\$513,380.04
7.375	7.983%	\$588,741.39	7.375	6.969%	\$513,380.04	7.375	6.969%	\$514,913.04
7.400	7.980%	\$590,523.15	7.400	6.966%	\$514,913.04	7.400	6.966%	\$516,446.04
7.425	7.977%	\$592,304.51	7.425	6.963%	\$516,446.04	7.425	6.963%	\$517,979.04
7.450	7.974%	\$594,085.46	7.450	6.960%	\$517,979.04	7.450	6.960%	\$519,512.04
7.475	7.971%	\$595,865.99	7.475	6.957%	\$519,512.04	7.475	6.957%	\$521,045.04
7.500	7.968%	\$597,646.12	7.500	6.954%	\$521,045.04	7.500	6.954%	\$522,578.04
7.525	7.965%	\$599,425.85	7.525	6.951%	\$522,578.04	7.525	6.951%	\$524,111.04
7.550	7.962%	\$601,205.18	7.550	6.948%	\$524,111.04	7.550	6.948%	\$525,644.04
7.575	7.959%	\$602,984.11	7.575	6.945%	\$525,644.04	7.575	6.945%	\$527,177.04
7.600	7.957%	\$604,762.64	7.600	6.942%	\$527,177.04	7.600	6.942%	\$528,710.04
7.625	7.954%	\$606,540.78	7.625	6.940%	\$528,710.04	7.625	6.940%	\$530,243.04
7.650	7.952%	\$608,318.52	7.650	6.937%	\$530,243.04	7.650	6.937%	\$531,776.04
7.675	7.949%	\$610,095.87	7.675	6.934%	\$531,776.04	7.675	6.934%	\$533,309.04
7.700	7.946%	\$611,872.83	7.700	6.931%	\$533,309.04	7.700	6.931%	\$534,842.04
7.725	7.944%	\$613,649.40	7.725	6.928%	\$534,842.04	7.725	6.928%	\$536,375.04
7.750	7.941%	\$615,425.58	7.750	6.925%	\$536,375.04	7.750	6.925%	\$537,908.04
7.775	7.938%	\$617,201.38	7.775	6.923%	\$538,430.27	7.775	6.923%	\$539,441.04

MODIFIED CURVE A

Cost of Construction In Millions			Cost of Construction In Millions		
	Percent	Fee		Percent	Fee
7.800	7.936%	\$618,976.80	7.800	6.920%	\$529,766.08
7.825	7.933%	\$620,751.33	7.825	6.917%	\$541,281.49
7.850	7.930%	\$622,526.49	7.850	6.915%	\$542,796.53
7.875	7.928%	\$624,300.76	7.875	6.912%	\$544,311.18
7.900	7.925%	\$626,074.66	7.900	6.909%	\$545,825.45
7.925	7.922%	\$627,848.19	7.925	6.906%	\$547,339.33
7.950	7.920%	\$629,621.35	7.950	6.904%	\$548,852.94
7.975	7.917%	\$631,394.13	7.975	6.901%	\$550,365.98
8.000	7.915%	\$633,166.54	8.000	6.898%	\$551,878.74
8.025	7.912%	\$634,938.59	8.025	6.896%	\$553,391.12
8.050	7.909%	\$636,710.27	8.050	6.893%	\$554,903.14
8.075	7.907%	\$638,481.58	8.075	6.891%	\$556,414.78
8.100	7.904%	\$640,252.54	8.100	6.888%	\$557,926.06
8.125	7.902%	\$642,023.13	8.125	6.885%	\$559,436.97
8.150	7.899%	\$643,793.36	8.150	6.883%	\$560,947.51
8.175	7.897%	\$645,563.23	8.175	6.880%	\$562,457.69
8.200	7.894%	\$647,332.75	8.200	6.878%	\$563,967.51
8.225	7.892%	\$649,101.91	8.225	6.875%	\$565,476.97
8.250	7.889%	\$650,870.72	8.250	6.873%	\$566,986.02
8.275	7.887%	\$652,639.18	8.275	6.870%	\$568,494.62
8.300	7.884%	\$654,407.29	8.300	6.868%	\$569,998.07
8.325	7.882%	\$656,175.05	8.325	6.865%	\$571,501.24
8.350	7.880%	\$657,942.46	8.350	6.863%	\$573,003.26
8.375	7.877%	\$659,709.52	8.375	6.860%	\$574,505.25
8.400	7.875%	\$661,476.24	8.400	6.858%	\$576,007.23
8.425	7.872%	\$663,242.62	8.425	6.855%	\$577,509.06
8.450	7.870%	\$665,008.66	8.450	6.853%	\$579,010.69
8.475	7.868%	\$666,774.35	8.475	6.850%	\$580,512.09
8.500	7.866%	\$668,539.71	8.500	6.848%	\$582,013.09
8.525	7.863%	\$670,304.73	8.525	6.846%	\$583,513.84
8.550	7.860%	\$672,069.42	8.550	6.843%	\$585,014.06
8.575	7.858%	\$673,833.77	8.575	6.840%	\$586,514.45
8.600	7.856%	\$675,597.79	8.600	6.838%	\$588,014.97
8.625	7.853%	\$677,361.47	8.625	6.836%	\$589,515.57
8.650	7.851%	\$679,124.83	8.650	6.833%	\$591,016.14
8.675	7.849%	\$680,887.06	8.675	6.831%	\$592,516.37
8.700	7.847%	\$682,649.56	8.700	6.829%	\$594,016.37
8.725	7.844%	\$684,412.33	8.725	6.826%	\$595,516.04
8.750	7.842%	\$686,174.98	8.750	6.824%	\$597,015.07
8.775	7.840%	\$687,936.71	8.775	6.822%	\$598,513.99
8.800	7.837%	\$689,698.11	8.800	6.819%	\$600,012.57
8.825	7.835%	\$691,459.20	8.825	6.817%	\$601,510.63
8.850	7.833%	\$693,219.96	8.850	6.815%	\$603,008.17
8.875	7.831%	\$694,980.41	8.875	6.812%	\$604,505.17
8.900	7.829%	\$696,740.54	8.900	6.810%	\$606,001.63
8.925	7.826%	\$698,500.35	8.925	6.808%	\$607,497.53
8.950	7.824%	\$700,259.86	8.950	6.806%	\$609,000.28

6/29/2002

MODIFIED CURVE A				MODIFIED CURVE B				
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
8.675	7.822%	\$702,019.04	8.675	6.803%	\$610,600.61	8.675	6.803%	\$610,600.61
9.000	7.820%	\$703,777.91	9.000	6.801%	\$612,098.62	9.000	6.801%	\$612,098.62
9.025	7.818%	\$705,536.48	9.025	6.799%	\$613,596.32	9.025	6.799%	\$613,596.32
9.050	7.816%	\$707,294.73	9.050	6.797%	\$615,096.71	9.050	6.797%	\$615,096.71
9.075	7.813%	\$709,052.68	9.075	6.794%	\$616,594.78	9.075	6.794%	\$616,594.78
9.100	7.811%	\$710,810.32	9.100	6.792%	\$618,092.54	9.100	6.792%	\$618,092.54
9.125	7.809%	\$712,567.65	9.125	6.790%	\$619,589.99	9.125	6.790%	\$619,589.99
9.150	7.807%	\$714,324.88	9.150	6.788%	\$621,087.13	9.150	6.788%	\$621,087.13
9.175	7.805%	\$716,081.41	9.175	6.786%	\$622,583.87	9.175	6.786%	\$622,583.87
9.200	7.803%	\$717,837.84	9.200	6.783%	\$624,080.49	9.200	6.783%	\$624,080.49
9.225	7.800%	\$719,593.98	9.225	6.781%	\$625,576.71	9.225	6.781%	\$625,576.71
9.250	7.798%	\$721,349.79	9.250	6.779%	\$627,072.63	9.250	6.779%	\$627,072.63
9.275	7.795%	\$723,105.31	9.275	6.777%	\$628,568.24	9.275	6.777%	\$628,568.24
9.300	7.794%	\$724,860.54	9.300	6.775%	\$630,063.56	9.300	6.775%	\$630,063.56
9.325	7.792%	\$726,615.47	9.325	6.773%	\$631,558.58	9.325	6.773%	\$631,558.58
9.350	7.790%	\$728,370.11	9.350	6.771%	\$633,053.28	9.350	6.771%	\$633,053.28
9.375	7.788%	\$730,124.45	9.375	6.769%	\$634,547.89	9.375	6.769%	\$634,547.89
9.400	7.786%	\$731,878.50	9.400	6.768%	\$636,041.90	9.400	6.768%	\$636,041.90
9.425	7.784%	\$733,632.26	9.425	6.766%	\$637,535.92	9.425	6.766%	\$637,535.92
9.450	7.782%	\$735,385.73	9.450	6.764%	\$639,029.74	9.450	6.764%	\$639,029.74
9.475	7.780%	\$737,138.91	9.475	6.762%	\$640,522.31	9.475	6.762%	\$640,522.31
9.500	7.778%	\$738,891.80	9.500	6.760%	\$642,015.31	9.500	6.760%	\$642,015.31
9.525	7.776%	\$740,644.41	9.525	6.758%	\$643,507.85	9.525	6.758%	\$643,507.85
9.550	7.774%	\$742,396.72	9.550	6.757%	\$645,000.31	9.550	6.757%	\$645,000.31
9.575	7.772%	\$744,148.78	9.575	6.755%	\$646,492.37	9.575	6.755%	\$646,492.37
9.600	7.770%	\$745,900.59	9.600	6.753%	\$647,984.15	9.600	6.753%	\$647,984.15
9.625	7.768%	\$747,651.97	9.625	6.751%	\$649,476.63	9.625	6.751%	\$649,476.63
9.650	7.766%	\$749,403.19	9.650	6.748%	\$650,968.84	9.650	6.748%	\$650,968.84
9.675	7.764%	\$751,154.08	9.675	6.746%	\$652,461.75	9.675	6.746%	\$652,461.75
9.700	7.762%	\$752,904.69	9.700	6.742%	\$653,948.38	9.700	6.742%	\$653,948.38
9.725	7.760%	\$754,654.92	9.725	6.740%	\$655,438.73	9.725	6.740%	\$655,438.73
9.750	7.758%	\$756,404.98	9.750	6.738%	\$656,928.80	9.750	6.738%	\$656,928.80
9.775	7.756%	\$758,154.88	9.775	6.736%	\$658,418.58	9.775	6.736%	\$658,418.58
9.800	7.754%	\$759,904.60	9.800	6.734%	\$659,908.09	9.800	6.734%	\$659,908.09
9.825	7.752%	\$761,653.83	9.825	6.732%	\$661,397.31	9.825	6.732%	\$661,397.31
9.850	7.750%	\$763,402.60	9.850	6.730%	\$662,886.26	9.850	6.730%	\$662,886.26
9.875	7.748%	\$765,151.29	9.875	6.728%	\$664,374.93	9.875	6.728%	\$664,374.93
9.900	7.746%	\$766,899.71	9.900	6.726%	\$665,863.33	9.900	6.726%	\$665,863.33
9.925	7.743%	\$768,647.66	9.925	6.724%	\$667,351.45	9.925	6.724%	\$667,351.45
9.950	7.741%	\$770,395.74	9.950	6.722%	\$668,839.29	9.950	6.722%	\$668,839.29
9.975	7.741%	\$772,143.36	9.975	6.720%	\$670,326.86	9.975	6.720%	\$670,326.86
10.000	7.739%	\$773,890.70	10.000	6.718%	\$671,814.16	10.000	6.718%	\$671,814.16



Agreement between North Harris County Regional Water Authority

and

RBC Dain Rauscher, Inc.



Jimmie Schindewolf, P.E.  
General Manager

July 9, 2003

**BOARD OF DIRECTORS**  
Ron Graham, *President*  
Lenox A. Sigler, *Vice President*  
Kelly P. Fessler, *Secretary*  
Alan J. Rendt, *Asst. Secretary*  
James D. Pulliam, *Treasurer*

Mr. Eugene Shepherd  
Managing Director  
RBC Dain Rauscher, Inc.  
First City Tower, Ste. 400  
Houston, TX 77002 Director

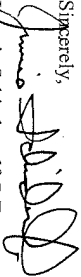
Re: Agreement For Financial Advisory Services

Dear Mr. Shepherd:

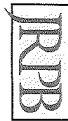
Transmitted herewith please find two fully executed duplicate originals of the Agreement For Financial Advisory Services between the North Harris County Regional Water Authority (the "Authority") and RBC Dain Rauscher, Inc. This Agreement was approved by the Authority Board of Directors at the July 7, 2003, Board meeting. I am also sending two duplicate originals to Robin Bobbitt of Johnson Radcliff Petrov & Bobbitt PLLC and I am retaining two for the Authority contract files.

I would request that you and each of your financial advisory team members read very carefully and become intimately familiar with the terms of this Agreement. I look forward to working very closely with the RBC Dain Rauscher, Inc. team in successfully accomplishing the financial goals of the Authority.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,  
  
Jimmie Schindewolf, P.E.  
General Manager

JAS/lr  
Attachment  
Cc: Robin Bobbitt- w/attachments  
Cyndi Plunkett – w/attachment



JOHNSON RADCLIFFE  
PETROV & ROBBITT PLLC

July 8, 2003

bdold@publiclaw.com

VIA MESSENGER

Mr. Jimmie Schindewolf

General Manager

North Harris County Regional Water Authority

3648 FM 1960 West, Suite 110

Houston, Texas 77068

Re: North Harris County Regional Water Authority

Dear Mr. Schindewolf:

Enclosed for your execution are six (6) copies of the Financial Advisory Agreement with RBC Dain Rauscher. Please execute page 4 of each copy. I suggest final distribution of the agreement as follows: two (2) originals for Gene Shepherd, one (1) original for the General Manager; and three (3) originals to this firm to the attention of the undersigned.

Let me know if I can be of further assistance to you in this matter.

Sincerely,

Brooke T. Dold  
Paralegal

Enclosures



First City Tower, Suite 400  
1001 Fannin  
Houston, TX 77002  
(713) 651-3346  
(713) 651-3347 Fax  
(800) 727-7391 Toll Free

#### FINANCIAL ADVISORY AGREEMENT

JULY 7, 2003

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Ladies and Gentlemen:

1. We understand that the North Harris County Regional Water Authority (the "Issuer") will have under consideration from time to time the authorization and issuance of obligations evidencing indebtedness (all such obligations shall be referred to as "Obligations") and that in connection with the issuance of such Obligations you hereby agree to retain RBC Dain Rauscher Inc. ("RBC Dain") to perform professional services as your financial advisor in accordance with the terms of this financial advisory agreement ("Agreement"). This Agreement shall apply to all Obligations that may be authorized and/or issued or otherwise created or assumed from time to time during the period in which this Agreement is effective.
2. To fulfill these duties as financial advisor, we agree to perform the following:
  - (a) We will conduct a review of the financial resources of the Issuer to determine the extent of the borrowing capacity of the Issuer. This review will include an analysis of (1) the existing debt structure in relation to sources of income projected by the Issuer which may be pledged to secure payment of the Obligations to be issued, and (2) where appropriate, the trends (as estimated by representatives of the Issuer) of future financing needs. In the event revenues of existing or projected facilities operated by the Issuer are to be pledged to repayment of the Obligations then under consideration, the survey will take into account any outstanding indebtedness payable from the revenues thereof, additional revenues to be available from any proposed rate increases and additional revenues, as projected by consulting engineers employed by the Issuer, if any resulting from improvements to be financed by the Obligations under consideration. We will also take into account future financing needs and operations as projected by the Issuer's staff and consulting engineers or other experts, if any, employed by the Issuer.
  - (b) On the basis of the information and estimates developed through our review described above and other information that we consider appropriate, we will submit written recommendations with respect to a plan of finance for the issuance of Obligations that will include (1) the date of issue, (2) interest structure (fixed or variable), (3) interest payment dates, (4) a schedule of maturities, (5) early redemption options, (6) security provisions, and (7) other matters that we consider appropriate to increase the marketability of the Obligations.
  - (c) In order to assist you in selecting a date for the sale of the Obligations, we will advise you of current conditions in the relevant debt market, upcoming bond issues, and other general information and economic data which might reasonably be expected to influence interest rates or bidding conditions.

- (d) We understand that you have retained or expect to retain a firm of recognized municipal bond attorneys, whose fees will be paid by you, who will prepare the proceedings, who will provide advice concerning the steps necessary to be taken to issue the Obligations, and who will issue an opinion (in a form standard for the particular type of financing) approving the legality of the Obligations and tax exemption of the interest paid thereon. In addition, one or more of the bond attorneys, your counsel or counsel to the underwriters of the Obligations will issue an opinion to the effect that the disclosure document does not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements contained therein, in light of the circumstances under which they were made, not misleading (subject to market exceptions). We will maintain liaison with the bond attorneys and other attorneys to the transaction and shall assist in all financial advisory aspects involved in the preparation of appropriate legal proceeding and documents.
  - (e) We will assist in the preparation of the Issuer's disclosure documents including the Preliminary Official Statement and the Official Statement.
  - (f) In connection with a negotiated sale, we will evaluate the underwriter proposals and make a recommendation for the hiring of the underwriter(s).
  - (g) In the event formal verification by an independent auditor of any calculations incident to the Obligations is required, we will make arrangements for such services.
  - (h) We will make recommendations to the Issuer on the matter of credit rating(s) for the proposed issue of Obligations. Upon the request of the Issuer, we will coordinate the preparation of information to be submitted to any rating agency. In those cases where it is appropriate to present personally information to any rating agency, we will arrange for such presentation.
  - (i) We will make recommendations to the Issuer as to the advisability of obtaining municipal bond insurance or other credit enhancement, or qualifications for such insurance or enhancement, for the Obligations and, when directed by the Issuer, we will coordinate the preparation of such information as, in our opinion, is required for submission to the appropriate company, institution or institutions. In those cases where the advisability of personal presentation of information to the appropriate company, institution or institutions, may be indicated, we will arrange for such personal presentations. The premiums for said insurance, if deemed advisable, will be paid by the Issuer if purchased directly or the underwriters if purchased as a bidder's option.
  - (j) We will (1) arrange for the printing of the Obligations, (2) submit the Obligations for execution and impression of a seal, and Texas Only: (3) cause the Obligations to be delivered to the Attorney General for approval and the Comptroller of Public Accounts for registration. The Issuer shall maintain ownership of the Obligations until they are sold and delivered to the purchaser.
  - (k) We will attend any and all meetings of governing body of the Issuer, its staff, representatives or committees as requested at all times when we may be of assistance or service and the subject of financing is to be discussed.
  - (l) After closing, we will deliver to the Issuer and the paying agent(s) definitive debt records, including a schedule of annual debt service requirements on the Obligations.
3. While this Agreement is in effect, the Issuer agrees (upon our request) to provide or cause to be provided to us information relating to the Issuer, the security for the Obligations, and other matters that we consider appropriate to enable us to perform our duties under this Agreement. With respect to all information provided by or on behalf of the Issuer to us under this Agreement, the Issuer agrees to obtain certifications (in a form reasonably satisfactory to us) from appropriate representatives of the Issuer as to the accuracy of such information and to use its best efforts to obtain certifications (in a form reasonably satisfactory to us) from representatives of other parties than the Issuer, where appropriate. The Issuer acknowledges that we shall be entitled to rely on the accuracy and completeness of all information provided by or on behalf of the Issuer.

4. In connection with Rule G-23 of the Municipal Securities Rulemaking Board, if, during the term of this Agreement, we are asked to serve as underwriter with respect to any issue of Obligations of the Issuer to be sold on a negotiated basis, we will, by written notice to, and consent by, the Issuer, terminate our obligations under this Agreement with respect to that issue of Obligations. This Agreement will stay in effect with respect to other issues of Obligations of the Issuer for which we are not acting as underwriter.

5. In consideration for the services rendered by us pursuant to this Agreement in connection with the authorization, issuance, and sale of Obligations, the Issuer agrees that our fee will be computed as shown on the "Fee Schedule" attached hereto. Our fee and reimbursable expenses shall become due and payable simultaneously with the delivery of the Obligations to be the Purchaser except that our reimbursable expenses shall be payable monthly upon our submission of a written statement. Our fees do not include and we will be entitled to be reimbursed from the Issuer for any actual "out-of-pocket" expenses incurred in connection with the provision of such services, including, but not limited to, reasonable travel expenses or any other expenses incurred on behalf of the Issuer.

6. If the Issuer considers and evaluates or uses interest rate derivative instruments as part of the financing plan for Obligations covered by this Agreement, we will provide assistance and advice related to their use if requested. Such assistance and advice will be provided as described in a separate scope of services letter that will specify the procedures we have been requested to perform and the extent of assistance we will provide. Fees for such services will be stated in that letter and will be in addition to those specified in this Agreement.

7. In addition to the terms and obligations herein contained, this Agreement is subject to the following special conditions:


This agreement shall not be assignable without the prior written consent of the Board of Directors of the Issuer.

8. This Agreement may be terminated by either party upon thirty days written notice.

9. This Agreement is submitted in duplicate originals. It constitutes the entire financial advisory agreement of the parties and may be amended only by a writing signed by the Issuer and RBC Dain. The Issuer's acceptance of this Agreement will occur upon proper signature by the authorized representative(s) of the Issuer and the return of one executed copy to RBC Dain.

Respectfully submitted,

RBC Dain Rauscher Inc.

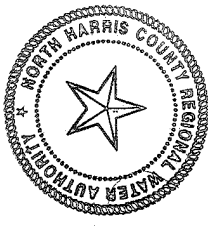
By   
Name Eugene B. Shepherd  
Title Managing Director  
Date July 7, 2003

**ACCEPTANCE**

ACCEPTED pursuant to motion adopted by the governing body of North Harris County Regional Water Authority on July 7, 2003

By *Ron Graham*  
Name Ron Graham  
Title President

Attest:  
By *[Signature]*  
Name Kelly Kessler  
Title Secretary  
Date July 7, 2003



APPROVED:  
*[Signature]*  
Name Jimmie Schindewolf, P.E.  
Title General Manager

**FREE SCHEDULE**

In consideration for the services rendered by RBC Dain, the Issuer agrees that our fee for each issue of Obligations will be as follows:

One-tenth (0.10%) of one percent (1%) of the par value of the Bonds actually sold and delivered to and paid for by the purchasers. The minimum fee for each issue sold and delivered shall be \$50,000.

In consideration of the above fee we will assume and be responsible for the following expenses:

Travel and communication expenses of the Financial Advisor with the exception of travel expenses outside the Houston Metropolitan Area.

In addition to our fee, the Issuer will be responsible for the expenses set forth below. In some cases, we may incur these expenses on your behalf, and you agree to reimburse us for such expenses:

All expenses of issuance will be borne by the Issuer. These issuance expenses include, but are not limited to, the cost of printing and mailing the Official Notice of Sale and the Official Statement, the travel expenses of the financial advisor, if any, incurred in presentation(s) before regulatory authorities, the national rating agencies, and/or credit enhancement companies on behalf of the Issuer, the fees of the national rating services pertaining to their assignment of credit rating(s) to the Issuer, credit enhancement fees, bond printing expenses, bond attorneys, security attorneys, or other attorney fees, the cost of legal advertisement and the Municipal Advisory Council of Texas listing fee.

Our bond fee shall become due and payable simultaneously with the delivery of the securities to the purchaser. Our reimbursable expenses shall become due and payable within 30 days after they are incurred by us.

If we are requested to perform additional financial advisory services for the Issuer other than in connection with the issuance and sale of the securities, such additional services will be billed monthly at the rate of \$175.00 per hour for senior bankers, \$125.00 per hour for analytical support, and \$50.00 per hour for administrative support.

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## A6 & A7

Counties

Harris

Identify the Applicant's total service area population:: 862,819

## Funding Program(s)

Funding Programs

SWIFT: \$117,855,000

## Other Funding Sources



Other Funding Sources

Funding Source	Type of Funds (Loan, Grant, etc.)	Amount (\$)	Date Applied for Funding	Anticipated or Funding Secured Date
----------------	--------------------------------------	-------------	-----------------------------	---

Other Funding Comments:

Funding\_1 N/A

# Funding & Project Type

Requesting Funding for Planning: N

Requesting Funding for Acquisition: Y

Requesting Funding for Design: Y

Requesting Funding for Construction: Y

Is the project a water project?: Y

Is the project a wastewater project?: N

Is Applicant requesting funding to refinance existing debt?: N

DUNS:

Federal Awards information:

1. Did applicant receive over 80% of their revenue from Federal Awards last year?:
2. Did applicant receive over \$25 million in Federal Awards last year?:
3. Does the public have access to executive compensation information via SEC or IRS reports?:

Describe procedures for collecting monthly customer bills (include procedures for collection of delinquent accounts):

TWDB-0215 N/A

# Contractors & Loan/Grant Participation Summary

Have you already solicited contractors?:

Have contracts already been awarded?:

## Legal Information

Cite the legal authority under which the Applicant can issue the proposed debt including the authority to make a proposed pledge of revenues.: Acts 1999, 76th Leg., Ch. 1029 (H.B. 2965), Section 5.02

What type of pledge will be used to repay the proposed debt?: SYSTEMS\_REVENUE

Provide the full legal name of the security for the proposed debt issue(s).: NHCRWA Senior Lien Revenue Bonds, Series 2016

Describe the pledge being offered and any existing rate covenants.: The security pledged to the Authority's Senior Lien Revenue Bonds is described in Section 3.2 of the attached Master Resolution. The rate covenant appears in Section 5.2 of the attached Master Resolution.

**RESOLUTION AUTHORIZING APPLICATION TO THE TEXAS WATER  
DEVELOPMENT BOARD FOR FINANCIAL ASSISTANCE RELATED TO  
NHCRWA TRANSMISSION LINE (SECOND SOURCE LINE,  
PHASE 1) AND DESIGNATING AUTHORIZED REPRESENTATIVES  
IN CONNECTION THEREWITH**

THE STATE OF TEXAS §  
COUNTY OF HARRIS §  
NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY §

**RECITALS**

WHEREAS, the North Harris County Regional Water Authority (the "Authority") and the City of Houston (the "City") have executed contracts pursuant to which the Authority purchases treated surface water from the City's Northeast Water Purification Plant (the "NEWPP"), which the Authority uses to comply with the Harris-Galveston Subsidence District's groundwater reduction mandates (the "HGSD Rules"); and

WHEREAS, pursuant to one (1) such agreement, the *Second Supplement to Water Supply Contract*, dated February 25, 2015, the Authority intends to participate financially in the City's expansion of the treated water production capacity of the NEWPP so it may purchase an additional 113 MGD of treated water from the NEWPP in order to further the Authority's ability to comply with the HGSD Rules; and

WHEREAS, pursuant to two (2) other such agreements, the *Third Supplement to Water Supply Contract for the Northeast Transmission Line – Segment 1*, and the *Fourth Supplement to Water Supply Contract for the Northeast Transmission Line – Segment 2*, both dated November 10, 2015, the Authority intends to participate financially with the City, among other parties, in the design and construction of approximately 17 miles of large diameter water transmission line in order to convey this additional water capacity from the NEWPP to a point just west of Interstate 45 (the "Project"); and

WHEREAS, in 2015 the Texas Water Development Board (the "Board") approved a multi-year loan commitment (the "2015 Commitment") from the State Water Implementation Fund for Texas ("SWIFT") in the amount of \$222,135,000 for the Project; and

WHEREAS, by a letter dated April 11, 2016, the Board invited the Authority to apply for financial assistance through the SWIFT program in order to provide additional funds for the Authority's costs related to the Project; and

WHEREAS, the Authority's Board of Directors has determined it to be in the best interest of the Authority to file an application for financial assistance through the SWIFT program with the Board in order to timely fund its costs related to the Project.

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF THE AUTHORITY, AS FOLLOWS:**

1. That the recitals stated above are found to be true and correct and are incorporated by reference into this Resolution as though fully set forth herein.

2. That an application seeking financial assistance in an amount not to exceed \$120,000,000 to provide for the Authority's costs is hereby approved and authorized to be filed with the Board. If such amount of funding for the Project is approved, then the Authority may not need funding for the years 2019 and 2020 committed in the 2015 Commitment.

3. That Jimmie Schindewolf, P.E., General Manager of the Authority, be and is hereby designated the authorized representative of the Authority for purposes of furnishing information and executing documents as required in connection with the preparation and filing of such application for financial assistance and the rules of the Board.

4. That the following firms and individuals are hereby authorized and directed to aid and assist in the preparation and submission of such application and appear on behalf of and represent the Authority before any hearing held by the Board on such application, to wit:

Planning and Governmental Affairs Director	Mark Evans North Harris County Regional Water Authority 3648 Cypress Creek Parkway, Suite 110 Houston, Texas 77068 (281) 440-3924
---	---

Financial Assistant	Cyndi Plunkett North Harris County Regional Water Authority 3648 Cypress Creek Parkway, Suite 110 Houston, Texas 77068 (281) 440-3924
---------------------	---

Co-Financial Advisor	Gene Shepherd RBC Capital Markets 1001 Fannin, Suite 1200 Houston, TX 77002 (713) 651-3338
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Co-Financial Advisor	John Howell The GMS Group, LLC 5075 Westheimer, Suite 1175 Houston, TX 77056 (713) 626-3347
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Program Manager	Thomas J. Rolen, P.E./Mike Baugher, P.E. AECOM Technical Services, Inc. 5444 Westheimer Road, Suite 200 Houston, TX 77056 (713) 780-4100
Engineer	Michael V. Reedy, P.E. Freese and Nichols, Inc. 10497 Town and Country Way, Suite 600 Houston, TX 77024 (713) 600-6828
Co-Bond Counsel	Robin S. Bobbitt/Jonathan D. Polley Radcliffe Bobbitt Adams Polley PLLC America Tower 2929 Allen Parkway, Suite 3450 Houston, Texas 77019 (713) 237-1221
Co-Bond Counsel	Robert M. Collie, Jr./Jerry Kyle Andrews Kurth LLP 600 Travis, Suite 4200 Houston, TX 77002 (713) 220-4200

[SIGNATURE PAGE FOLLOWS]



APPROVED and ADOPTED this 2nd day of May, 2016.

  
\_\_\_\_\_  
President, Board of Directors

ATTEST:

  
\_\_\_\_\_  
Secretary, Board of Directors




APPLICATION AFFIDAVIT

THE STATE OF TEXAS §  
COUNTY OF HARRIS §  
NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY §

BEFORE ME, the undersigned duly constituted authority of the State of Texas, on this day personally appeared Jimmie Schindewolf, P.E., General Manager of the North Harris County Regional Water Authority (the "Authority"), as the Authorized Representative of the Authority, who being by me duly sworn, upon oath did state:

1. The decision by the Authority to request financial assistance from the Texas Water Development Board ("Board") was made in a public meeting held in accordance with the Open Meetings Act (Government Code, §551.001, et seq.) and after providing all such notice as required by such Act as is applicable to the Authority;
2. The information submitted in the application is true and correct according to my best knowledge and belief;
3. The Authority has no pending, threatened, or outstanding judgments, orders, fines, penalties, taxes, assessment or other enforcement or compliance issue of any kind or nature by the Environmental Protection Agency, Texas Commission on Environmental Quality, Texas Comptroller, Texas Secretary of State, or any other federal, state or local government;
4. The Authority warrants compliance with the representations made in the application in the event that the Board provides the financial assistance; and
5. The Authority will comply with all applicable federal laws, rules, and regulations as well as the laws of this state and the rules and regulations of the Board.

  
Jimmie Schindewolf, P.E.  
General Manager of the Authority

SWORN TO AND SUBSCRIBED BEFORE ME by Jimmie Schindewolf, P.E., on this 2<sup>nd</sup> day of May, 2016.

  
Notary Public, State of Texas



**CERTIFICATE FOR RESOLUTION**

THE STATE OF TEXAS §

COUNTY OF HARRIS §

NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY §

I, the undersigned Secretary of the Board of Directors (the "Board") of North Harris County Regional Water Authority (the "Authority"), hereby certify as follows:

1. The Board convened in regular session, open to the public, on the 2<sup>nd</sup> day of May, 2016, at the regular meeting place thereof, and the roll was called of the members of the Board, to-wit:

Alan J. Rendl	President
Kelly P. Fessler	Vice President
Lenox A. Sigler	Secretary
Ron Graham	Assistant Secretary
Jim Pulliam	Treasurer/Investment Officer

All members of the Board were present except Director Fessler, thus constituting a quorum. Whereupon, among other business, the following was transacted at such meeting:

**RESOLUTION AUTHORIZING APPLICATION TO THE TEXAS WATER DEVELOPMENT BOARD FOR FINANCIAL ASSISTANCE RELATED TO NHCRA TRANSMISSION LINE (SECOND SOURCE LINE, PHASE 1) AND DESIGNATING AUTHORIZED REPRESENTATIVES IN CONNECTION THEREWITH**

was duly introduced for the consideration of the Board. It was then duly moved and seconded that such Resolution be adopted; and, after due discussion, such motion, carrying with it the adoption of said Resolution, prevailed and carried by the following vote:

AYES: 4                      NOES: 0

2. A true, full, and correct copy of the aforesaid Resolution adopted at the meeting described in the above and foregoing paragraph is attached to and follows this Certificate; such Resolution has been duly recorded in said Board's minutes of such meeting; the above and foregoing paragraph is a true, full, and correct excerpt from the Board's minutes of such meeting pertaining to the adoption of such Resolution; the persons named in the above and foregoing paragraph are the duly chosen, qualified, and acting officers and members of the Board as indicated therein; each of the officers and members of the Board was duly and sufficiently notified officially and personally, in advance of the time, place, and purpose of such meeting and that such Resolution would be introduced and considered for adoption at such meeting and each of such officers and members consented, in advance, to the holding of such meeting for such purpose; such meeting was open to the public, as required by law, and public notice of the time,

place and purpose of such meeting was given as required by Chapter 551, Texas Government Code, as amended, and Section 49.063, Texas Water Code, as amended.

SIGNED AND SEALED the 2<sup>nd</sup> day of May, 2016.



Secretary, Board of Directors



00205600 3

**Bonds, CCN, Enforcement Action**

Is the applicant proposing to issue revenue bonds?: Y

Does the applicant possess a Certificate of Convenience and Necessity (CCN)?:

Has the applicant been the subject of any enforcement action by the Texas Commission on Environmental Quality (TCEQ), the Environmental Protection Agency (EPA), or any other entity within the past three years?: N

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**MASTER RESOLUTION**

**ESTABLISHING A FINANCING PROGRAM FOR THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY; APPROVING AND AUTHORIZING NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY SENIOR LIEN REVENUE BONDS TO BE ISSUED IN VARIOUS SERIES AND TO BE SOLD AND DELIVERED IN VARIOUS FORMS; PROVIDING FOR CREDIT AGREEMENTS; MAKING CERTAIN COVENANTS AND AGREEMENTS IN CONNECTION THEREWITH; AND RESOLVING OTHER MATTERS INCIDENT AND RELATED THERETO.**

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May 19, 2003

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STATE OF TEXAS §  
NORTH HARRIS COUNTY §  
REGIONAL WATER AUTHORITY §

MASTER RESOLUTION ESTABLISHING A FINANCING PROGRAM FOR THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY; APPROVING AND AUTHORIZING NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY SENIOR LIEN REVENUE BONDS TO BE ISSUED IN VARIOUS SERIES AND TO BE SOLD AND DELIVERED IN VARIOUS FORMS; PROVIDING FOR CREDIT AGREEMENTS; MAKING CERTAIN COVENANTS AND AGREEMENTS IN CONNECTION THEREWITH; AND RESOLVING OTHER MATTERS INCIDENT AND RELATED THERETO.

BE IT RESOLVED AND ORDERED BY THE BOARD OF DIRECTORS OF NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY:

ARTICLE I

FINDINGS AND DETERMINATIONS

Section 1.1 Findings and Determinations. It is hereby officially found and determined that:

(a) North Harris County Regional Water Authority (the "Authority") is a governmental agency and a body politic and corporate created as a regional water authority pursuant to the Constitution and laws of the State of Texas, including Article XVI, Section 59, Texas Constitution, and Chapter 1029, Acts of the 76th Texas Legislature 1999 (Regular Session), as amended by Chapter 1296, Acts of the 77th Texas Legislature 2001 (Regular Session) (the "Act").

(b) The Authority's creation was confirmed at an election held within the boundaries of the Authority on January 15, 2000.

(c) The Act provides that the Authority may issue revenue notes and bonds secured by all or part of the revenue derived from any source to carry out a power or authority conferred by the Act and exercise any power of an Issuer under Chapter 1371, Texas Government Code, as amended ("Chapter 1371"), in issuing or securing a bond or note.

(d) The Act provides that (i) the Authority may establish fees (including fees charged against the owner of a well located in the Authority's boundaries) and charges as necessary to enable the Authority to fulfill its regulatory obligations and (ii) fees established by the Board of Directors of the Authority (the "Board") must be sufficient to achieve water conservation, prevent waste of water, serve as a disincentive to pumping groundwater, and accomplish the purposes of the Act, including making available alternative water supplies, and enable the Authority to meet operation and maintenance

expenses and pay the principal of and interest on debt issued in connection with the exercise of the Authority's general powers and duties.

(e) The Board has determined to issue bonds, notes and other obligations and evidences of indebtedness in series and installments from time to time pursuant to the provisions of the Act and Chapter 1371 in order to establish a financing program for revenue-supported obligations of the Authority, which will be secured by and payable from the revenues described in this Master Resolution and that it is in the best interest of the Authority to adopt this Master Resolution.

[End of Article I]

**ARTICLE II**

**DEFINITIONS AND INTERPRETATIONS**

Section 2.1 Definitions. The words and terms used in this Master Resolution and the recitals hereto shall have the meanings set forth in Exhibit A hereto, unless the context or use clearly indicates another or different meaning or intent, and such definitions shall be equally applicable to both the singular and plural forms of the terms and words therein defined.

Section 2.2 Rules of Construction. For all purposes of this Master Resolution, unless the context requires otherwise, all references to designated Articles, Sections and other subdivisions are to articles, sections and other subdivisions of this Master Resolution. References to any constitutional, statutory or regulatory provision means such provision as it exists on the date the Master Resolution is adopted by the Board and any future amendments thereto or successor provisions thereof.

Section 2.3 Interpretations. All terms defined herein and all pronouns used in this Master Resolution shall be deemed to apply equally to singular and plural and to all genders. The titles and headings of the articles and sections of this Master Resolution and the Table of Contents of this Master Resolution have been inserted for convenience of reference only and are not to be considered a part hereof and shall not in any way modify or restrict any of the terms or provisions hereof. This Master Resolution and all the terms and provisions hereof shall be liberally construed to effectuate the purposes set forth herein.

[End of Article II]

### ARTICLE III

#### ESTABLISHMENT OF FINANCING PROGRAM

Section 3.1 Establishment of Financing Program. Pursuant to authority conferred by and in accordance with the provisions of the Constitution and laws of the State, particularly the Act and Chapter 1371, the Board hereby establishes a financing program to (a) carry out the powers and authority conferred by the Act; (b) fund any reserve or other fund established in connection with the issuance of Senior Lien Obligations; (c) refund and refinance Outstanding Senior Lien Obligations and other bonds, notes, obligations and evidences of indebtedness incurred by the Authority; (d) pay the cost of issuance of Senior Lien Obligations; and (e) provide funds for any other lawful purpose (except that bond proceeds must be used for the purposes for which such bonds were issued or deposited in the Interest and Sinking Fund).

Each separate series or installment of Senior Lien Obligations shall be issued pursuant to the terms and conditions contained in a Supplemental Resolution and may be issued in one or more installments; provided that each Senior Lien Obligation shall be designated in a manner that includes in its title a reference to the issuer of the Senior Lien Obligations and (in the case of Parity Bonds or Parity Obligations) a series or installment designation therefor, together with any other identifying or descriptive words deemed appropriate by the Board or an Authorized Representative.

Each Supplemental Resolution shall provide for the authorization, issuance, sale, delivery, form, characteristics, interest rate(s) (which may be fixed, variable, adjustable or computed by any other method), provisions for payment and redemption and any other matters related to the Senior Lien Obligations of such series or installment (including, without limitation, matters related to the delegation of the sale of any such Senior Lien Obligations to an Authorized Representative and the execution and delivery of Parity Credit Agreements, if any). A Supplemental Resolution may provide for different or additional terms for the Senior Lien Obligations of each series or installment.

Except as provided in Section 3.4(b), no limit is imposed as to the principal amount of Senior Lien Obligations that may be issued under the provisions of this Master Resolution.

Section 3.2 Security for Senior Lien Obligations.

(a) The Senior Lien Obligations shall constitute special obligations of the Authority secured by and payable solely from the sources herein provided. To secure the payment of (i) principal of, premium, if any, and interest on Parity Bonds and Parity Obligations and (ii) all costs and amounts due and owing under any Parity Credit Agreements (including any Reserve Fund Obligations), except as therein provided, the Authority hereby pledges and grants a first and prior lien on all Gross Revenues as collected and received by the Authority, subject only to the prior use of Gross Revenues to pay Operation and Maintenance Expenses in accordance with Section 4.2 hereof. All Senior Lien Obligations shall be additionally secured by and payable from amounts in the Interest and Sinking Fund and the Reserve Fund. If the Board provides a Parity Credit Agreement as additional security for any Parity Bonds or Parity Obligations, such Parity

Bonds or Parity Obligations shall be further secured by and payable from such Parity Credit Agreement to the extent provided therein; provided, that the Parity Credit Agreement may provide that payment of costs and amounts due and owing under such Parity Credit Agreement shall be paid and payable only after payment of any Parity Bonds or Parity Obligations supported by such Parity Credit Agreement.

The Owners of the Senior Lien Obligations shall never have the right to demand payment of either the principal of, interest on or any premium on the Parity Bonds or Parity Obligations or any costs and amounts owing under any Parity Credit Agreement out of any funds raised or to be raised by taxation.

(b) Chapter 1208, Texas Government Code, applies to the issuance and delivery of Senior Lien Obligations and the pledge of the Net Revenues granted by the Board under this Master Resolution, and such pledge is therefore valid, effective and perfected. If Texas law is amended at any time while the Senior Lien Obligations are Outstanding and unpaid such that the pledge of the Net Revenues granted by the Board under this Master Resolution is to be subject to the filing requirements of Chapter 9, Texas Business & Commerce Code, then in order to preserve to the owners of the Senior Lien Obligations the perfection of the security interest in such pledge, the Board agrees to take such measures as it determines are reasonable and necessary under Texas law to comply with the applicable provisions of Chapter 9, Texas Business & Commerce Code, and enable a filing to perfect the security interest in said pledge to occur.

Section 3.3 Senior Lien Obligations Ratably Secured. All Senior Lien Obligations issued or incurred hereunder are, and are to be, to the extent provided in this Master Resolution, equally and ratably secured by the security pledged under this Master Resolution without preference, priority or distinction on account of the series or installment, or the actual time or times of the execution, authentication, delivery or maturity of such Senior Lien Obligations so that all such Senior Lien Obligations at any time Outstanding hereunder shall have the same right, lien and preference under and by virtue of this Master Resolution and shall be equally and ratably secured hereby with like effect as if they were of the same series or installment and they had all been executed, authenticated and delivered simultaneously on the date hereof, whether the same, or any of them, shall actually be disposed of at such date, or whether they, or any of them, shall be disposed of at some future date; provided that no series or installment of Parity Bonds or Parity Obligations shall have any right, lien or claim to the security of or payment from any Credit Agreement unless such Credit Agreement is provided to secure or pay Parity Bonds or Parity Obligations of such series or installment.

Section 3.4 Issuance of Senior Lien Obligations; Additional Senior Lien Obligations.

(a) The Authority reserves and shall have the right and power to issue Parity Bonds and Parity Obligations and to execute and deliver Parity Credit Agreements for any purpose authorized by law pursuant to the provisions of this Master Resolution and any Supplemental Resolution hereto. Senior Lien Obligations, if and when authorized, issued and delivered in accordance with this Master Resolution, shall be secured by and made payable equally and ratably on a parity with all Outstanding Senior Lien Obligations from an irrevocable lien on and pledge of the Net Revenues.

(b) The Parity Bonds or Parity Obligations of each series or installment and any Parity Credit Agreement(s) shall be delivered in accordance with terms to be set forth in the Supplemental Resolution authorizing such series, installment or agreement.

Each Supplemental Resolution under which Senior Lien Obligations are issued shall specify or provide for (i) the authorized principal amount and designation of Senior Lien Obligations issued as Parity Bonds or Parity Obligations; (ii) the purpose or purposes for which the Senior Lien Obligations are being issued; (iii) the maturity date or dates of the Senior Lien Obligations; (iv) the interest rate(s) of the Senior Lien Obligations (which may be fixed, variable or otherwise) and the manner of determining such rate(s) and the interest payment date(s) therefor; (v) the authorized denomination(s) of and the manner of dating, numbering and lettering Senior Lien Obligations issued as Parity Bonds or Parity Obligations; (vi) the redemption or prepayment price(s), if any, and the redemption or prepayment terms for the Senior Lien Obligations; (vii) the increased or changed Reserve Fund Requirement as of the issuance of the Senior Lien Obligations and the manner in which any increase or change in the Reserve Fund Requirement will be funded, including any special provisions for a Reserve Fund Obligation; (viii) the form(s) of Senior Lien Obligations issued as Parity Bonds or Parity Obligations; (ix) the appointment of any fiscal agent(s) or other agents, if any, for such Senior Lien Obligations; and (x) any other provisions deemed advisable by the Authority and not in conflict with the provisions of this Master Resolution.

In addition, following the first issuance of Senior Lien Obligations hereunder and prior to the delivery of any additional series or installment Parity Bonds or Parity Obligations or any Parity Credit Agreement constituting a Senior Lien Obligation, an Authorized Representative shall provide a written certificate attesting to the matters in each of clauses (i) and (ii) and to the matters in either clause (iii), (iv) or (v):

(i) All action on the part of the Authority necessary for the valid issuance of the Parity Bonds or Parity Obligations then to be issued (or any Parity Credit Agreement then to be delivered) has been taken; that all provisions of State and federal law necessary for the valid issuance of such Parity Bonds or Parity Obligations (or the delivery of any Parity Credit Agreement) have been complied with; and that such Parity Bonds or Parity Obligations (or any Parity Credit Agreement) will be valid and enforceable special obligations of the Authority according to their terms, subject to the exercise of judicial discretion in accordance with general principles of equity and bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights heretofore or hereafter enacted to the extent constitutionally applicable.

(ii) No Event of Default under this Master Resolution or any Supplemental Resolution has occurred and is continuing as of the date of such certificate, and the Authority is not in default as to any covenant, condition or obligation in connection with its Outstanding Senior Lien Obligations and the resolutions authorizing same.

(iii) The Adjusted Net Revenues for the most recently completed Fiscal Year, or any consecutive twelve (12) month period out of the eighteen (18) month period immediately preceding the Issue Date for such Parity Bonds or Parity Obligations (or the date of delivery of such Parity Credit Agreement), were at least equal to the Coverage Requirement (which shall include debt service on the proposed series or installment of Senior Lien Obligations then being issued) for the current Fiscal Year.

(iv) The Pro-forma Net Revenues for the most recently completed Fiscal Year, or any consecutive twelve (12) month period out of the eighteen (18) month period immediately preceding the Issue Date for such Parity Bonds or Parity Obligations (or the date of delivery of such Parity Credit Agreement), were at least equal to the Pro-Forma Coverage Requirement (which shall include debt service on the proposed series or installment of Senior Lien Obligations then being issued) for the current Fiscal Year.

(v) The Senior Lien Obligations are being issued for the purpose of refunding previously issued Senior Lien Obligations and the issuance of such Senior Lien Obligations will result in a reduction in the maximum Annual Debt Service Requirements of the Senior Lien Obligations to be Outstanding following the issuance of such Senior Lien Obligations.

(c) Any Parity Credit Agreement (i) providing for the payment of or security for Parity Bonds or Parity Obligations that are Outstanding at the time such Parity Credit Agreement is executed and delivered and (ii) that is not described in or contemplated by the Supplemental Resolution that authorized the related series or installment of Parity Bonds or Parity Obligations, may be executed and delivered pursuant to a Supplemental Resolution, subject to compliance with this Section 3.4 (including delivery of the certifications required by Subsection (b)). Any Parity Credit Agreement executed and delivered in accordance with this subsection 3.4(c) shall be equally and ratably secured in accordance with subsection 3.4(a).

Section 3.5 Junior Lien Obligations and Subordinate Lien Obligations. The Authority reserves the right to issue, for any lawful purpose, Junior Lien Obligations and Subordinate Lien Obligations in such amounts, on such dates and having such terms as the Board may determine; provided, that the Junior Lien Obligations and the Subordinate Lien Obligations shall not be secured by, or payable from any moneys drawn under, any Credit Agreement that provides for the payment of or security for Parity Bonds or Parity Obligations. Such Junior Lien Obligations and Subordinate Lien Obligations may be further secured by any other source of payment lawfully available for such purpose.

Section 3.6 Special Project Bonds. The Authority reserves the right to issue revenue bonds secured by liens on and pledges of revenues and proceeds derived from Special Projects.

[End of Article III]

## ARTICLE IV

### FUNDS AND ACCOUNTS

Section 4.1 Special Funds. The Authority hereby covenants and agrees that Gross Revenues, as collected and received by the Authority, shall be deposited and paid into the special funds hereinafter established, and shall be applied in the manner hereinafter set forth, in order to provide for (a) the payment of all Operation and Maintenance Expenses, (b) the payment of principal of, interest on and any premium on the Parity Bonds and Parity Obligations and all expenses of paying same, (c) payment of all costs and amounts due and owing under any Parity Credit Agreements and (d) the disposition of the remaining Net Revenues.

The following special Funds shall be established, maintained and accounted for as hereinafter provided so long as any of the Parity Bonds or Parity Obligations remain Outstanding (or any costs or amounts owed under a Parity Credit Agreement remain unpaid):

- (a) North Harris County Regional Water Authority Revenue Fund (the "*Revenue Fund*");
- (b) North Harris County Regional Water Authority Senior Lien Interest and Sinking Fund (the "*Interest and Sinking Fund*");
- (c) North Harris County Regional Water Authority Senior Lien Reserve Fund (the "*Reserve Fund*");
- (d) North Harris County Regional Water Authority Senior Lien Obligation Coverage Fund (the "*Coverage Fund*");
- (e) North Harris County Regional Water Authority Operation and Maintenance Reserve Fund (the "*Operation and Maintenance Reserve Fund*"); and
- (f) North Harris County Regional Water Authority Improvement Fund (the "*Improvement Fund*").

All of such Funds shall be held by a depository of the Authority and maintained as separate accounts on the books of the Authority. The Interest and Sinking Fund, the Reserve Fund and the Coverage Fund shall constitute trust funds which shall be held in trust for the Owners of the Senior Lien Obligations and the proceeds of which shall be pledged to the payment of the Senior Lien Obligations. All of the Funds named above shall be used solely as herein provided so long as any Parity Bond or Parity Obligation remains Outstanding (or any costs or amounts owed under a Parity Credit Agreement remain unpaid).

Section 4.2 Flow of Funds. The Gross Revenues of the System shall be deposited as collected into the Revenue Fund. In addition, amounts transferred from the Coverage Fund pursuant to Section 4.5(b) shall be deposited to the credit of the Revenue Fund.



On or before the last Business Day of each month, moneys from time to time on deposit to the credit of the Revenue Fund shall be applied in the following manner and in the following order of priority:

- (a) First, to pay Operation and Maintenance Expenses;
- (b) Second, to make all deposits into the Interest and Sinking Fund required by Section 4.3;
- (c) Third, to make all deposits into the Reserve Fund required by Section 4.4;
- (d) Fourth, to make all deposits into the Coverage Fund required by Section 4.5;
- (e) Fifth, to make all deposits and transfers (including any required reserves therefor) as may be required by any order or resolution of the Authority authorizing the issuance of Junior Lien Obligations in order to provide for the payment of and security for such Junior Lien Obligations; and
- (f) Sixth, to make all deposits into the Operation and Maintenance Reserve Fund required by Section 4.6;
- (g) Seventh, to make all deposits and transfers (including any required reserves therefor) as may be required by any order or resolution of the Authority authorizing the issuance of Subordinate Lien Obligations in order to provide for the payment of and security for such Subordinate Lien Obligations; and
- (h) Eighth, all remaining Net Revenues shall be deposited into the Improvement Fund in accordance with Section 4.7.

Section 4.3 Interest and Sinking Fund. An Authorized Representative shall provide for the deposit into the Interest and Sinking Fund of any amounts determined to be accrued or capitalized interest received from the sale of Senior Lien Obligations.

On or before the last Business Day of each month (and at such other times as shall be set forth in any Supplemental Indenture) so long as any Senior Lien Obligations remain Outstanding, after making all required payments and provision for payment of Operation and Maintenance Expenses, there shall be transferred into the Interest and Sinking Fund from the Revenue Fund the following amounts:

- (a) such amounts (in approximately equal monthly installments and taking into account (i) any amounts then on deposit in the Interest and Sinking Fund and available for such purpose and (ii) the number of monthly installments to occur between the date such installment is deposited and the next interest payment date) as will be sufficient to accumulate, during the six-month period immediately preceding the next scheduled interest payment date for Senior Lien Obligations, the amount required to pay the interest scheduled to become due on the Senior Lien Obligations (other than Reserve Fund Obligations) on the next interest payment date therefor;

(b) such amounts (in approximately equal monthly installments and taking into account (i) any amounts then on deposit in the Interest and Sinking Fund and available for such purpose and (ii) the number of monthly installments to occur between the date such installment is deposited and the next principal payment date) as will be sufficient to accumulate, during the twelve-month period immediately preceding the next succeeding principal payment date for Senior Lien Obligations, the amount required to pay the next maturing principal of the Senior Lien Obligations (other than Reserve Fund Obligations), including the principal of, and any premium on, any Senior Lien Obligations payable as a result of the operation or exercise of any mandatory or optional redemption provision contained in any Supplemental Resolution;

(c) to the extent not included in the amounts transferred pursuant to subsection (a) and (b), such amounts (in approximately equal monthly installments and taking into account (i) any amounts then on deposit in the Interest and Sinking Fund and available for such purpose and (ii) the number of monthly installments to occur between the date such installment is deposited and the next payment date therefor) as will be sufficient to pay the costs and amounts due and owing in the current Fiscal Year under any Parity Credit Agreements (other than costs and amounts paid with respect to a Reserve Fund Obligation pursuant to Section 4.4) as such costs and amounts become due and owing; and

(d) such amounts (in approximately equal monthly installments and taking into account (i) any amounts then on deposit in the Interest and Sinking Fund and available for such purpose and (ii) the number of monthly installments to occur between the date such installment is deposited and the next payment date therefor) as will be sufficient to pay any bank charges or other costs and expenses incurred in the current Fiscal Year and related to the disbursement of payments from and the administration of amounts on deposit in the Interest and Sinking Fund.

Whenever the total amounts on deposit to the credit of the Interest and Sinking Fund and the Reserve Fund shall be equivalent to the sum of the aggregate principal amount of all Outstanding Senior Lien Obligations plus the aggregate amount of all interest accrued and to accrue thereon and all costs and amounts owed and to be owed under any Parity Credit Agreements, no further payments need be made into the Interest and Sinking Fund or the Reserve Fund, and such Senior Lien Obligations shall not be regarded as being outstanding except for the purpose of being paid with the moneys on deposit in such Funds.

Moneys deposited to the credit of the Interest and Sinking Fund shall be used solely for the purpose of paying principal (whether at maturity, upon prior redemption or upon the purchase of Senior Lien Obligations in the open market, at a price that does not exceed the redemption price therefor, to be credited against mandatory redemption requirements), interest and premium on the Parity Bonds and Parity Obligations and the costs and amounts due and owing under any Parity Credit Agreements, plus all bank charges and other costs and expenses relating to such payment.

On or before (a) each principal and/or an interest payment date for Parity Bonds or Parity Obligations and (b) each date that any cost or amount becomes due and owing under any Parity

Credit Agreement, the Authority shall transfer from the Interest and Sinking Fund to the paying agent (or the obligee, as applicable) for the Senior Lien Obligations an amount equal to the principal of, interest on, any premium and any costs or other amounts payable on the Senior Lien Obligations on such date, together with an amount equal to all bank charges and other costs and expenses relating to such payment. The paying agent shall totally destroy all paid Senior Lien Obligations and shall provide the Authority with an appropriate certificate of destruction.

Section 4.4 Reserve Fund.

(a) There shall be deposited from the proceeds of the sale of Senior Lien Obligations or other lawfully available funds, to the credit of the Reserve Fund, an amount of money which (together with any Reserve Fund Obligation which the Authorized Representative may secure for the Reserve Fund) equals the Reserve Fund Requirement. No further deposits shall be made into the Reserve Fund as long as the money and investments (together with any Reserve Fund Obligation) in the Reserve Fund are at least equal in market value to the Reserve Fund Requirement; but if and whenever the market value of money and investments (together with any Reserve Fund Obligation) in the Reserve Fund is reduced below such Reserve Fund Requirement because of a decrease in market value of investments, then the Authority shall deposit Net Revenues into the Reserve Fund in an amount sufficient to restore the Reserve Fund to the Reserve Fund Requirement; and in the event the Reserve Fund is used to pay the principal of or interest on the Senior Lien Obligations because of insufficient amounts being available in the Interest and Sinking Fund, then the Authority shall deposit Net Revenues into the Reserve Fund in an amount sufficient to restore the Reserve Fund to the Reserve Fund Requirement by depositing into the Reserve Fund an amount in equal payments, required on or before the last Business Day of each month (beginning with the first month following the occurrence of a deficiency), to restore any deficiency in the Reserve Fund Requirement in not more than twelve (12) months (or such shorter period as may be established by any Supplemental Resolution). For purposes of calculating the amount on hand in the Reserve Fund, an amount equal to the maximum available amount which may be drawn under any Reserve Fund Obligation, as described in (d) below, will be deemed on deposit in the Reserve Fund. During any period in which the money and the market value of investments credited to the Reserve Fund (taking into account any Reserve Fund Obligation) are equal to or exceed the Reserve Fund Requirement then during such period all investment earnings and income from the Reserve Fund shall be deposited upon receipt to the credit of the Interest and Sinking Fund.

(b) The Reserve Fund shall secure and (to the extent that amounts on deposit in the Interest and Sinking Fund and the Coverage Fund are insufficient therefor) be used to pay the principal of and interest on Senior Lien Obligations as such principal and interest becomes due and payable; provided that any Parity Credit Agreement may provide that payment of costs and amounts due and owing thereunder shall be paid and payable only after payment of any Parity Bonds or Parity Obligations supported by such Parity Credit Agreement. However, each Supplemental Resolution shall provide and require that (i) the aggregate amount to be accumulated and maintained in the Reserve Fund shall be increased (if and to the extent necessary) to the Reserve Fund Requirement required after the issuance of such Senior Lien Obligations; and (ii) the required

additional amount, if any, shall be so accumulated by the deposit in the Reserve Fund of all of such required additional amount in cash or a Reserve Fund Obligation immediately after the delivery of the then proposed Senior Lien Obligations.

(c) Notwithstanding any other provision of this Master Resolution, an equivalent Reserve Fund Obligation may be substituted by the Authority at any time and from time to time in lieu of all or any part of the money and/or investments held for (or required to be held for) the credit of the Reserve Fund, and such money and/or investments may be withdrawn and used for any lawful purpose. If a Reserve Fund Obligation is used as provided above, any reimbursements required thereunder to be paid to a Credit Agreement Provider as a result of a draw or demand thereunder and any interest thereon and expenses payable thereunder shall be made, as provided in the Reserve Fund Obligation, from moneys deposited into the Reserve Fund until fully paid.

(d) A Reserve Fund Obligation permitted under (c), above, must be a Credit Agreement in the form of a surety bond, insurance policy or letter of credit meeting the requirements described below.

(1) A surety bond or insurance policy issued to the entity serving as trustee or paying agent (the "Fiduciary"), as agent of the Owners, by a company licensed to issue an insurance policy guaranteeing the timely payment of debt service on the Senior Lien Obligations (a "municipal bond insurer") if the claims paying ability of the issuer thereof shall be rated "AAA" or the equivalent by at least two Rating Agencies.

(2) A surety bond or insurance policy issued to the Fiduciary, as agent of the Owners, by an entity other than a municipal bond insurer, if (A) the claims paying ability of the provider of such surety bond or insurance policy shall be rated by a Rating Agency not lower than the lowest rating applicable to any Outstanding Senior Lien Obligations and the form and substance of such instrument and the issuer thereof shall be approved in writing by each Bond Insurer of record or (B) all Outstanding Parity Bonds and Parity Obligations are insured by a Bond Insurance Policy and the form and substance of such instrument and the issuer thereof shall be approved in writing by each Bond Insurer of record.

(3) An unconditional irrevocable letter of credit issued to the Fiduciary, as agent of the Owners, by a bank if the issuer thereof is rated "AA" or the equivalent by at least two Rating Agencies. The letter of credit shall be payable in one or more draws upon presentation by the beneficiary of a sight draft accompanied by its certificate that it then holds insufficient funds to make a required payment of principal or interest on the Senior Lien Obligations. The draws shall be payable within two (2) days of presentation of the sight draft. The letter of credit shall be for a term of not less than three (3) years and shall be subject to an "evergreening" feature so as to provide the Authority with at least thirty (30) days notice of termination. The issuer of the letter of credit shall be required to notify the Authority and the Fiduciary not later than thirty (30) days

prior to the stated expiration date of the letter of credit, as to whether such expiration date shall be extended, and if so, shall indicate the new expiration date. If such notice indicates that the expiration date shall not be extended, the Authority shall deposit in the Reserve Fund, in accordance with this section, an amount sufficient to cause the money or investments on deposit in the Reserve Fund (together with any other qualifying Reserve Fund Obligations) to accumulate to the Reserve Fund Requirement, unless the expired Reserve Fund Obligation is replaced by a Reserve Fund Obligation meeting the requirements in clause (1) or (2), above, or in this clause (3). The letter of credit shall permit a draw in full not less than fourteen (14) days prior to the expiration or termination of such letter of credit if the letter of credit has not been replaced or renewed. The Fiduciary shall draw upon the letter of credit prior to its expiration or termination unless an acceptable replacement is in place or the Reserve Fund is otherwise fully funded to the Reserve Fund Requirement at the time of such expiration or termination.

(4) The obligation to reimburse the issuer of a Reserve Fund Obligation for any expenses, claims or draws upon such Reserve Fund Obligation, including interest thereon, shall be made from the deposits made to the Reserve Fund as provided in this Section (and subordinate to the payment of debt service on other Senior Lien Obligations). Any reimbursement obligation shall be repaid from amounts deposited into the Reserve Fund in approximately equal monthly installments over a period of not less than twelve (12) months (beginning with the month that follows the month in which the reimbursement obligation arises) and, to the extent not inconsistent with such payment schedule, in accordance with the provisions of the Reserve Fund Obligation. The Reserve Fund Obligation shall provide for a revolving feature under which the amount available thereunder will be reinstated to the extent of any reimbursement of draws or claims paid. If the revolving feature is suspended or terminated for any reason, the right of the issuer of the Reserve Fund Obligation to reimbursement will be subordinated to the cash replenishment of the Reserve Fund to an amount equal to the difference between the full original amount available under the Reserve Fund Obligation and the amount then available for further draws or claims. In the event (A) the issuer of a Reserve Fund Obligation becomes insolvent, or (B) the issuer of a Reserve Fund Obligation defaults in its payment obligations thereunder, or (C) the claims paying ability of the issuer of the insurance policy or surety bond falls below "AAA" or the equivalent by a Rating Agency, or (D) the rating of the issuer of the letter of credit falls below "AA" or the equivalent by a Rating Agency, the obligation to reimburse the issuer of the Reserve Fund Obligation shall be subordinate to the cash replenishment of the Reserve fund.

(5) In the event (A) the revolving reinstatement feature described in the preceding paragraph is suspended or terminated, or (B) the rating of the claims paying ability of the issuer of the surety bond or insurance policy falls below "AAA" or the equivalent by a Rating Agency, or (C) the rating of the issuer of the letter of credit falls below "AA" or the equivalent by a Rating Agency, the Authority shall either (i) deposit into the Reserve Fund an amount sufficient to

cause the money or permitted investments on deposit in the Reserve Fund to accumulate to the Reserve Fund Requirement, such amount to be paid over the ensuing five years in equal installments at least semi-annually, or (ii) replace such instrument with a surety bond, insurance policy, or letter of credit meeting the requirements in any of clauses (1) through (3) above within six (6) months of such occurrence. In the event (A) the rating of the claims paying ability of the issuer of the surety bond or insurance policy falls below "A" or the equivalent by a Rating Agency, or (B) the rating of the issuer of the letter of credit falls below "A" or the equivalent by a Rating Agency, or (C) the issuer of the Reserve Fund Obligation defaults in its payment obligations hereunder, or (D) the issuer of the Reserve Fund Obligation becomes insolvent, the Authority shall either (i) deposit into the Reserve Fund an amount sufficient to cause the money or permitted investments on deposit in the Reserve Fund to accumulate to the Reserve Fund Requirement, such amount to be paid over the ensuing year in equal installments on at least a monthly basis, or (ii) replace such instrument with a surety bond, insurance policy, or letter of credit meeting the requirements in any of clauses (1) through (3) above within six (6) months of such occurrence.

(6) Where applicable, the amount available for draws or claims under a Reserve Fund Obligation may be reduced by the amount of money or permitted investments deposited in the Reserve Fund pursuant to clause (i) of the preceding clause (5).

(7) The Fiduciary shall ascertain the necessity for a claim or draw upon any Reserve Fund Obligation and provide notice to the Authority and the issuer of the Reserve Fund Obligation in accordance with its terms not later than three (3) Business Days prior to each interest or principal payment date (or such appropriate time period as will, when combined with the timing of required payment under the Reserve Fund Obligation, ensure payment under the Reserve Fund Obligation on or before the interest or principal payment date).

(8) Cash on deposit in the Reserve Fund may be used (or investments purchased with such cash shall be liquidated and the proceeds applied as required) prior to any drawing on any Reserve Fund Obligation. If and to the extent that more than one Reserve Fund Obligation is deposited in the Reserve Fund, drawings thereunder and repayments of costs associated therewith shall be made on a pro rata basis, calculated by reference to the maximum amounts available thereunder.

(9) Any Reserve Fund Obligation (A) shall be subject to receipt of such opinion(s) of counsel as may be required by any Supplemental Resolution authorizing the issuance or incurrence of Senior Lien Obligations and (B) must, to the extent required by law, be submitted to and approved by the Office of the Attorney General of the State of Texas.

Section 4.5 Coverage Fund.

(a) On or before the last Business Day of the month in which the Issue Date for any series or installment of Senior Lien Obligations occurs, after making all prior transfers from the Revenue Fund, there shall be transferred from the Revenue Fund to the Coverage Fund (i) to the extent funds are available in the Revenue Fund, an amount equal to the Coverage Fund Requirement and (ii) if required, in each succeeding month, an amount equal to one-twelfth (1/12) of the Coverage Fund Requirement until (A) the Coverage Fund Requirement has been established in the Coverage Fund or (B) the transfer of funds provided in subsection (b) occurs.

(b) On the first Business Day of each calendar year, there shall be transferred to the Revenue Fund from the Coverage Fund an amount equal to the Coverage Fund Requirement (or such amount as shall be on deposit in the Coverage Fund).

(c) On or before the last Business Day of each month, after making all prior transfers from the Revenue Fund, there shall be transferred from the Revenue Fund to the Coverage Fund, (i) in the first month of each calendar year to the extent available in the Revenue Fund, an amount equal to the Coverage Fund Requirement and (ii) if required, in each succeeding month, an amount equal one-twelfth (1/12) of the Coverage Fund Requirement until the Coverage Fund Requirement has been reestablished in the Coverage Fund.

(d) If funds on deposit in the Interest and Sinking Fund are insufficient to pay the principal of and interest on Senior Lien Obligations as such principal and interest becomes due and payable, amounts in the Coverage Fund shall be transferred to the Interest and Sinking Fund to the extent required for such purpose. During any period in which the money and or the market value of investments credited to the Coverage Fund are equal to or exceed the Coverage Fund Requirement, all investment earnings and income from the Coverage Fund shall be deposited upon receipt to the credit of the Revenue Fund.

Section 4.6 Operation and Maintenance Reserve Fund. Commencing on the Issue Date of any Senior Lien Obligations, there shall be transferred from the Revenue Fund to the Operation and Maintenance Reserve Fund, an amount sufficient to accumulate the Operation and Maintenance Reserve Requirement. In any Fiscal Year, the amount of the Operation and Maintenance Reserve Requirement shall be determined based on that Fiscal Year's budget.

If the money and the market value of investments in the Operation and Maintenance Reserve Fund is less than the Operation and Maintenance Reserve Requirement for the Fiscal Year, as stated in the budget therefor, on or before the last Business Day of each month, there shall be credited to the Operation and Maintenance Reserve Fund (i) an amount sufficient to re-establish the Operation and Maintenance Reserve Requirement or (ii) if such deficiency results from a requisition for funds as provided in the next paragraph of this Section, an amount equal to 1/6<sup>th</sup> of the deficiency caused by such requisition until the amount on deposit in the Operation and Maintenance Reserve Fund equals the Operation and Maintenance Reserve Requirement. No payment need be made into the Operation and Maintenance Reserve Fund so long as the

moneys and investments therein shall then equal not less than the Operation and Maintenance Reserve Requirement.

The moneys and investments in the Operation and Maintenance Reserve Fund shall be maintained as a continuing reserve to be used only to prevent deficiencies in the payment of Operation and Maintenance Expenses resulting from a deficiency of Gross Revenues sufficient to pay such expenses as the same accrue and become due. If at any time the Gross Revenues are not sufficient to pay Operation and Maintenance Expenses, the Authority acting by and through an Authorized Representative may requisition the additional moneys needed therefor, and thereupon such money shall be withdrawn from the Operation and Maintenance Reserve Fund and applied for the payment of Operation and Maintenance Expenses. Any moneys accounted for in the Operation and Maintenance Reserve Fund and exceeding the Operation and Maintenance Reserve Requirement for the then current Fiscal Year may be transferred to and deposited in the Revenue Fund.

Section 4.7    Improvement Fund.

(a) Any money remaining in the Revenue Fund after all prior transfers have been satisfied shall be transferred to the Improvement Fund on or before the last day of each Fiscal Year. Moneys deposited into the Improvement Fund may be used by the Authority for any lawful purpose.

(b) In the event that the amount on deposit in the Interest and Sinking Fund is ever insufficient to pay the principal of or the interest on any Senior Lien Obligations as such principal and interest become due and payable, amounts in the Improvement Fund shall be transferred to the Interest and Sinking Fund to the extent required to pay such principal and interest when due and payable. In addition, in the event that the Coverage Fund Requirement is not established in the Coverage Fund on the last Business Day of the penultimate month of each Fiscal Year, after all transfers required by Section 4.2 have been made, the Authority shall transfer amounts from the Improvement Fund to the Coverage Fund as necessary to re-establish the Coverage Fund Requirement prior to the last Business Day of such Fiscal Year. Except as otherwise provided by this subsection (b), investment earnings and income from amounts on deposit in the Improvement Fund shall be deposited upon receipt to the credit of the Revenue Fund.

Section 4.8    Rebate Fund. The Authority may establish a Rebate Fund and deposit therein such amounts as are required to be paid to the United States of America under the Code and the Regulations. Moneys in the Rebate Fund shall be used to make payments to the United States of America to the extent required pursuant to the requirements of the Code, the Regulations, and the federal tax covenants of any Supplemental Resolution. For purposes of satisfying such requirements, amounts in any Fund established in this Indenture may be transferred to the Rebate Fund.

Section 4.9    Deficiencies in Funds; Other Transfers.

(a) If in any month there shall not be deposited into any Fund maintained pursuant to this Article the full amounts required hereinabove, amounts equivalent to



such deficiency shall be set apart and paid into such Fund or Funds from the first available and unallocated moneys in the Revenue Fund and such payment shall be in addition to the amounts otherwise required to be paid into such Funds during any succeeding month or months. To the extent necessary, the rates and charges for the System and fees of the Authority shall be increased to make up for any such deficiencies.

(b) Notwithstanding anything in this Article to the contrary, if on any interest payment date, principal payment date or other date there are not sufficient Net Revenues to make the required transfers to the Interest and Sinking Fund or the Reserve Fund to pay, when due, the interest on or principal of or any other payment on any Senior Lien Obligations or to make any required deposit to the Reserve Fund, there may be transferred at the Authority's discretion, from any lawfully available source, the amount which will result in the appropriate Fund having the balance required to be on deposit therein; provided that no transfer will be made from proceeds of one issue of Senior Lien Obligations to pay debt service on another issue of Senior Lien Obligations unless authorized by Supplemental Resolution. The Authority shall be permitted to reimburse itself for any such transfers from amounts deposited in the Improvement Fund.

Section 4.10 Additional Funds and Accounts. The Authority reserves the right to establish (by Supplemental Resolution or by resolution adopted for any other purpose) one or more subfunds, accounts or subaccounts within any Fund (including, without limitation, accounts or subaccounts for the purpose of establishing one or more reserves for, or holding the proceeds of, Senior Lien Obligations) and one or more funds, subfunds, accounts or subaccounts in connection with any issue or series of Junior Lien Obligations or Subordinate Lien Obligations (including, without limitation, funds, subfunds, accounts or subaccounts for the purpose of establishing one or more reserves for, or holding the proceeds of, Junior Lien Obligations or Subordinate Lien Obligations, holding funds obtained from any other source or to accomplish any other lawful purpose of the Authority). Any fund, subfund, account or subaccount created for the purpose of establishing one or more reserves for, or holding the proceeds of, Junior Lien Obligations or Subordinate Lien Obligations shall be funded from Net Revenues in accordance with the priority set forth in Section 4.2.

Section 4.11 Investment of Funds; Transfer of Investment Income. Moneys in any Fund established by this Master Resolution may, at the option of the Authority, be invested in Eligible Investments, provided that all such deposits and investments shall have a market value exclusive of accrued interest at all times at least equal to the amount of money credited to such Funds, and shall be made in such manner that the money required to be expended from any Fund will be available at the proper time or times. Moneys in the Reserve Fund shall be invested in Eligible Investments maturing not later than the final maturity of the Senior Lien Obligations. Such investments shall be valued in terms of current market value as of the last day of each year or Fiscal Year, except that direct obligations of the United States in book-entry form shall be continuously valued at their par or face principal amount. Such investments shall be sold promptly when necessary to prevent any default in connection with the Senior Lien Obligations.

Section 4.12 Security for Uninvested Funds. So long as any Senior Lien Obligation remains Outstanding, all uninvested moneys on deposit in, or credited to, any Fund shall be

secured by the pledge of security as provided by law for governmental entities and political subdivisions of the State of Texas.

[End of Article IV]

## ARTICLE V

### COVENANTS

Section 5.1 General Covenants. The Authority covenants and agrees that in accordance with and to the extent required or permitted by law, and for as long as any of the Senior Lien Obligations is Outstanding:

(a) Performance. It will faithfully perform at all times any and all covenants, undertakings, stipulations and provisions contained in this Master Resolution; it will promptly pay or cause to be paid the principal of and interest on every Senior Lien Obligation, on the dates and in the places and manner prescribed herein and in any Supplemental Resolutions; it will, at the times and in the manner prescribed, deposit or cause to be deposited the amounts required to be deposited into the Funds, and any Owner of a Senior Lien Obligation may require the Authority, its officials and employees to carry out, respect or enforce the covenants and obligations of this Master Resolution, by all legal and equitable means, including specifically, but without limitation, the use and filing of mandamus proceedings, in any court of competent jurisdiction, against the Authority, its officials and employees.

(b) Title. It has or will obtain lawful title to the lands, buildings, structures, storage capacities and other facilities constituting the System, that it warrants that it will defend the title to all the aforesaid lands, buildings, structures and facilities, and every part thereof, for the benefit of the Owners of the Senior Lien Obligations, against the claims and demands of all persons whomsoever, and it is lawfully qualified to pledge the Net Revenues to the payment of the Senior Lien Obligations in the manner prescribed herein, and has lawfully exercised such rights.

(c) Liens. It will from time to time and before the same become delinquent pay and discharge all taxes, assessments and governmental charges, if any, which shall be lawfully imposed upon it, or the System; it will pay all lawful claims for rents, royalties, labor, materials, and supplies which if unpaid might by law become a lien or charge thereon, the lien of which would be prior to or interfere with the liens hereof, so that the priority of the liens granted hereunder shall be fully preserved in the manner provided herein, and it will not create or suffer to be created any mechanic's, laborer's, materialman's or other lien or charge which might or could be prior to the liens hereof, or do or suffer any matter or thing whereby the liens hereof might or could be impaired; provided, however, that no such tax, assessment or charge, and that no such claims which might be used as the basis of a mechanic's, laborer's, materialman's or other lien or charge, shall be required to be paid so long as the validity of the same shall be contested in good faith by the Authority.

(d) Operations of System. It will continuously and efficiently operate the System, and shall maintain the System in good condition, repair and working order, all at reasonable cost and in the same manner as comparable public authorities engaged in similar activities.

(e) Further Encumbrance. It will not additionally encumber the Gross Revenues or the Net Revenues (or any part thereof) in any manner, except as permitted in this Master Resolution in connection with Senior Lien Obligations (heretofore or hereafter issued), unless such encumbrance is made junior and subordinate in all respects to the liens, pledges, covenants and agreements of this Master Resolution; but the right of the Authority to issue revenue bonds or other obligations, payable from a subordinate lien on the Net Revenues is specifically recognized and retained.

(f) Sale of Property. It will not sell or encumber the System, or any significant or substantial part thereof; provided that whenever the Authority deems it necessary to dispose of any property, machinery, fixtures or equipment which is a part of the System, it may sell or otherwise dispose of such property, machinery, fixtures or equipment when it has made arrangements to replace the same or provide substitutes therefor, unless it is determined that no such replacement or substitute is necessary to the efficient operation of the System.

(g) Insurance.

(1) It will cause to be insured such parts of the System as would usually be insured by corporations operating like properties, with a responsible insurance company or companies, against risks, accidents or casualties against which and to the extent insurance is usually carried by corporations operating like properties, including, to the extent reasonably obtainable, fire and extended coverage insurance, insurance against damage by floods, and use and occupancy insurance. Public liability and property damage insurance shall also be carried unless the Authority's attorney gives a written opinion to the effect that the Authority is not liable for claims which would be protected by such insurance. At any time while any contractor engaged in construction work shall be fully responsible therefor, the Authority shall not be required to carry insurance on the work being constructed if the contractor is required to carry appropriate insurance. All such policies shall be open to the inspection of the owners of Senior Lien Obligations and their representatives at all reasonable times. Upon the happening of any loss or damage covered by insurance from one or more of said causes, the Authority shall make due proof of loss and shall do all things necessary or desirable to cause the insuring companies to make payment in full directly to the Authority. The proceeds of insurance covering such property, together with any other funds necessary and available for such purpose, shall be used forthwith by the Authority for repairing the property damaged or replacing the property destroyed; provided, however, that if said insurance proceeds and other funds are insufficient for such purpose, then such insurance proceeds pertaining to the System shall be used promptly as follows:

(A) for the redemption prior to maturity of the Senior Lien Obligations, ratably in the proportion that the Outstanding principal of each series or installment of Senior Lien Obligations bears to the total Outstanding principal of all Senior Lien Obligations, provided that if on any such occasion the principal of any such series or installment is not subject to

redemption, it shall not be regarded as Outstanding in making the foregoing computation; or

- (B) if none of the Outstanding Senior Lien Obligations is subject to redemption, then for the purchase on the open market and retirement of said Senior Lien Obligations in the same proportion as prescribed in the foregoing clause (A), to the extent practicable; provided that the purchase price for any Senior Lien Obligations shall not exceed the redemption price of such Senior Lien Obligations on the first date upon which it becomes subject to redemption; or
- (C) to the extent that the foregoing clauses (A) and (B) cannot be complied with at the time, the insurance proceeds, or the remainder thereof, shall be deposited in a special and separate trust fund, at a depository of the Authority, to be designated the "*Insurance Account*". The Insurance Account shall be held until such time as the foregoing clauses (A) and/or (B) can be complied with, or until other funds become available which, together with the Insurance Account, will be sufficient to make the repairs or replacements originally required, whichever of said events occurs first.

(2) The foregoing provisions of (1) above notwithstanding, the Authority shall have authority to enter into coinsurance or similar plans where risk of loss is shared in whole or in part by the Authority; provided that the portion of the risk of loss that is coinsured shall not exceed the portion as would reasonably and customarily be coinsured by similar entities operating like properties.

(3) The annual audit hereinafter required shall contain a section commenting on whether or not the Authority has complied with the requirements of this Section with respect to the maintenance of insurance, and listing all policies carried, and whether or not all insurance premiums upon the insurance policies to which reference is hereinbefore made have been paid.

(h) Records. It will keep proper books of record and account in which full, true and correct entries will be made of all dealings, activities and transactions relating to the System, the Gross Revenues and the Net Revenues and the Funds created pursuant to this Master Resolution, and all books, documents and vouchers relating thereto shall at all reasonable times be made available for inspection upon request of an owner of Senior Lien Obligations.

(i) Audits. After the close of each Fiscal Year while any of the Senior Lien Obligations are Outstanding, it will cause an audit to be made of the books and accounts relating to the Authority, including the System and the Net Revenues, by an independent certified public accountant or an independent firm of certified public accountants as soon as practicable after the close of each such Fiscal Year.

(j) Franchises, Permits and Authorizations. It will comply with all of the terms and conditions of any and all franchises, permits and authorizations that are applicable to or necessary with respect to the System and that have been obtained from any governmental agency; and the Authority has or will use its best efforts to obtain and keep in full force and effect all franchises, permits, authorization and other requirements applicable to or necessary with respect to the acquisition, construction, equipment, operation and maintenance of the System.

(k) No Free Service. It will not grant or permit any free service from the System, except for public buildings and institutions operated by the Authority. In addition, the Authority will not grant or permit any free service from the System permitted by the previous sentence if to do so would violate any condition or covenant to which the Authority is bound in connection with any federal grant agreement or otherwise.

(l) Subsidence District Rules and Regulations. It will comply with all applicable rules and regulations of the Subsidence District and all other governmental agencies and regulatory bodies that exercise lawful jurisdiction in regard to the regulation of the Authority's operations and affairs.

(m) Power to Own and Operate System; Ratemaking Power. It will establish, fix, increase, impose and collect rates, fees and charges (in the amounts required to comply with the covenants and provisions contained herein) for the use and services of the System and for the pumping or other extraction of water from wells located within the territory of the Authority. In addition, to the greatest extent permitted by law, the Authority will maintain and impose fees upon the importation of water into the territory of the Authority from sources located outside the territory of the Authority.

Such rates, fees and charges shall be established, fixed, increased, imposed and collected in amounts sufficient (a) to achieve water conservation, prevent waste of water, serve as a disincentive to pumping ground water, and accomplish the purposes of the Act and (b) when combined with all other Gross Revenues, to enable the Authority to pay all Maintenance and Operation Expenses, debt service on Senior Lien Obligations, and all other obligations of the Authority payable from Gross Revenues or any portion thereof.

(n) To Monitor Water Volumes. It will establish, administer and enforce an audit program to monitor and to ensure the accuracy of the reporting of volumes of water pumped and extracted by owners of wells located within the territory of the Authority.

(o) To Inspection of Facilities. Not less frequently than once every three (3) years, it will engage an independent Engineer to inspect and provide a written report identifying the Authority's facilities (including the System) and describing the condition thereof.

Section 5.2 Rate Covenant.

(a) After taking into consideration any Capital Contribution Credits and other credits that the Authority may grant from time to time, the Authority shall fix, establish, maintain and collect Gross Revenues sufficient:

- (1) to pay all current Operation and Maintenance Expenses;
- (2) to produce either (A) Net Revenues or (B) Adjusted Net Revenues for each Fiscal Year at least equal to the Rate Coverage Requirement;
- (3) to produce Adjusted Net Revenues for each Fiscal Year in an amount sufficient to pay all debt service on Senior Lien Obligations actually coming due during such Fiscal Year; and
- (4) to pay all other obligations of the System reasonably expected to be paid from Net Revenues.

To the extent that any agency of the United States of America or the State of Texas shall exercise any lawful jurisdiction in regard to the fixing of any such rates, charges and fees, the Authority within lawful limits shall contest such to the extent the exercise of such jurisdiction should make ineffective or reduce the effectiveness of the establishment by the Authority of such rates, charges and fees in accordance with this paragraph.

(b) Compliance with the Rate Coverage Requirement set forth in clause (a)(2) of this Section shall be measured and determined each year using a schedule which shall be prepared by the Authority in accordance with the provisions of this Master Resolution and attached to the Authority's audited financial statements. Not later than the sixtieth (60<sup>th</sup>) day following the receipt by the Board of the Authority's audited financial statements for a Fiscal Year in which the Authority has failed to satisfy the Rate Coverage Requirement, the Authority shall appoint an Independent Rate Consultant to make recommendations to ensure compliance with the Rate Coverage Requirement and the rate covenant. As long as the Independent Rate Consultant's recommendations are implemented and administered by the Authority, no default shall result solely from a failure by the Authority to satisfy the Rate Coverage Requirement or the rate covenant set forth herein.

Section 5.3 Owners' Rights and Remedies. This Master Resolution shall constitute a contract between the Authority and the Owners of the Senior Lien Obligations from time to time Outstanding and this Master Resolution shall be and remain irrevocable until all Outstanding Senior Lien Obligations shall be fully paid or discharged or provision therefor shall have been made as provided herein. In the event of a default in the payment of the principal of or interest on any of the Senior Lien Obligations or a default in the performance of any duty or covenant provided by law or in this Master Resolution, the Owners of any of the Senior Lien Obligations may pursue all legal remedies afforded by the Constitution and laws of the State of Texas to compel the Authority to remedy such default and to prevent further default or defaults. Without

in any way limiting the generality of the foregoing, it is expressly provided that any Owner of any of the Senior Lien Obligations may (at law or in equity), by suit, action, mandamus, or other proceedings, enforce and compel performance of all duties required to be performed by the Authority under this Master Resolution, including (a) the assessment and collection of reasonable and sufficient Pumpage Fees and rates, fees and charges for the use and services of the System, (b) the deposit of the revenues thereof into the special funds herein provided, and (c) the application of such revenues in the manner required in this Master Resolution.

So long as a Bond Insurer shall not have defaulted in its payment obligations under its Bond Insurance Policy insuring a portion of the Senior Lien Obligations, any such Bond Insurer shall have all the rights granted to the Owners of such Senior Lien Obligations in this Master Resolution (and no consent of the Owners shall be required in the exercise by the Bond Insurer of such rights).

[End of Article V]



## ARTICLE VI

### AMENDMENTS

Section 6.1 Amendments to Master Resolution Not Requiring Consent of Owners.

The Authority, without the consent of or notice to any Owner, may adopt amendments to this Master Resolution (or any Supplemental Resolution) which do not materially adversely affect the interests of the Owners for one or more of the following purposes:

(a) To grant to or confer upon the Owners any additional rights, remedies, powers or authority that may lawfully be granted to or conferred upon the Owners;

(b) To grant or pledge to the Owners any additional security other than that granted or pledged under this Master Resolution;

(c) To amend this Master Resolution or any resolution amendatory hereto in such manner as to permit the qualification thereof under the Trust Indenture Act of 1939 or any similar federal statute then in effect or to permit the qualification of the Senior Lien Obligations for sale under the securities laws of any of the states of the United States;

(d) To amend this Master Resolution for the purpose of obtaining or retaining a rating on the Senior Lien Obligations from a Rating Agency;

(e) To amend this Master Resolution as may be necessary or convenient in connection with the book-entry system for payments, transfers and other matters relating to the Senior Lien Obligations;

(f) To cure any ambiguity, supply any omission, or to correct or supplement any provision contained herein or in any amendatory resolution which may be defective or inconsistent with any provision contained herein or in any amendatory resolution;

(g) To make such changes or insert such provisions to clarify matters or questions arising under this Master Resolution as are necessary or desirable and are not contrary to or inconsistent with this Master Resolution as theretofore in effect;

(h) To make any change therein necessary, in the opinion of Bond Counsel, to maintain the exclusion from gross income for federal income tax purposes of the interest on any Outstanding Senior Lien Obligations;

(i) To make any change or modification in the terms and conditions of any series or installment established pursuant to a Supplemental Resolution to the extent that such change or modification (A) is not inconsistent with the terms and conditions of this Master Resolution, (B) affects only Senior Lien Obligations of such series or installment that have not been issued and delivered to the initial purchasers thereof on the effective date of such change or modification and (C) does not adversely affect the interests of the Senior Lien Obligations that were Outstanding immediately before the effective date of such change or modification; and

(j) To modify any of the provisions of this Master Resolution in any other respect whatever, provided that such modification shall be, and be expressed to be, effective only after all Senior Lien Obligations Outstanding at the date of the adoption of such modification shall cease to be Outstanding.

Prior to the effective date of any such amendment, a copy of such amendment shall be promptly furnished to the Fiscal Agents and Credit Agreement Providers of any Parity Credit Agreements then in effect.

Section 6.2 Amendments to Master Resolution Requiring Consent of Owners.

(a) Exclusive of amendments covered by Section 6.1, the Owners of not less than a majority of the aggregate principal amount of the then Outstanding Parity Bonds and Parity Obligations, with the consent of the Credit Agreement Providers of any Parity Credit Agreements then in effect, shall have the right, from time to time, anything contained in this Master Resolution to the contrary notwithstanding, to consent to such other amendments hereto (including amendments to any Supplemental Resolution) as shall be consented to by the Board in its sole discretion for the purpose of modifying, altering, amending, adding to or rescinding any of the terms or provisions contained in this Master Resolution (or any Supplemental Resolution) or in any amendatory resolution; provided, however, that nothing in this Section shall permit, or be construed as permitting, without the consent of each affected Owner, (i) an extension of the maturity of the principal of, or the mandatory redemption date of, or interest payment date on, any Parity Bond or Parity Obligation, (ii) a reduction in the principal of, or the premium or the rate of interest on, any Parity Bond or Parity Obligation, (iii) a preference or priority of any Parity Bond or Parity Obligation or Parity Bonds or Parity Obligations over any other Parity Bond or Parity Obligation or Parity Bonds or Parity Obligations, (iv) the creation of a lien prior to the lien of this Master Resolution or (v) a reduction in the aggregate principal amount of the Parity Bonds or Parity Obligations required for any consent to any amendment. The giving of notice to and consent of the Owners to any such proposed amendment shall be obtained pursuant to Section 6.4 hereof.

(b) With regard to any series or installment of Parity Bonds or Parity Obligations that are insured (or for which the payment of principal and interest has been guaranteed) such that they bear the highest generic rating of each Rating Agency then rating such series or installment of Parity Bonds or Parity Obligations, the Bond Insurer that issued the Bond Insurance Policy for such series or installment of Parity Bonds or Parity Obligations shall be authorized to exercise the rights of Owners of Parity Bonds or Parity Obligations that it insures or guarantees for purposes of consenting to any amendment hereto except for the matters detailed in clauses (i), (ii), (iii) and (v) of Section 6.2(a).

Section 6.3 Amendments, Changes and Modifications to Parity Credit Agreements.

No Parity Credit Agreement may be effectively amended, changed or modified without the prior written consent of the Authority and the related Credit Agreement Provider. The Authority may, without the consent of the owners of the Parity Bonds or Parity Obligations, consent to any amendment of a Parity Credit Agreement which, in the Board's or an Authorized

Representative's judgment, does not prejudice in any material respect the interests of the Owners. The foregoing shall not limit the Fiscal Agent's obligation to send notice to a Credit Agreement Provider to reduce amounts available under its currently effective Parity Credit Agreement, under the circumstances set forth therein.

Copies of any such amendments, changes or modifications shall be filed with the Fiscal Agents.

Section 6.4 Notice to and Consent of Owners. If consent of the Owners is required under the terms of this Master Resolution for the amendment of this Master Resolution or a Parity Credit Agreement or for any other similar purpose, the Authority shall cause notice of the proposed amendment to be given by first-class mail to the last known holders of the Outstanding Parity Bonds and Parity Obligations (whose consent is so required) then shown on the registration books for the Parity Bonds and Parity Obligations. Such notice shall briefly set forth the nature of the proposed amendment or other action and shall state that copies of any such amendment or other document are on file at the office of the Authority and the principal office of the Fiscal Agent for inspection by all Owners. If, within sixty (60) days or such longer period as shall be prescribed by the Authority following the mailing of such notice, the holders of the requisite principal amount of the Parity Bonds and Parity Obligations Outstanding by instruments filed with the Authority shall have consented to the amendment or other proposed action, then the Authority may adopt or execute, as appropriate, such amendment or other document or take such proposed action and the consent of the Owners shall thereby be conclusively presumed.

Section 6.5 Supplemental Resolutions. Notwithstanding any provision of this Master Resolution to the contrary, the Authority, without notice to or consent of the Owners or the Credit Agreement Providers of any Parity Credit Agreements then in effect, may adopt Supplemental Resolutions not inconsistent with the provisions of this Master Resolution (i) authorizing the issuance and specifying the designation, and aggregate principal amount, of any series or installment of Parity Bonds or Parity Obligations, (ii) authorizing one or more Parity Credit Agreements, (iii) appointing one or more Fiscal Agents (and specifying their respective duties and responsibilities) for such Parity Bonds or Parity Obligations and (iv) taking other appropriate action relating to the issuance of Parity Bonds or Parity Obligations hereunder.

[End of Article VI]

## ARTICLE VII

### DISCHARGE OF LIEN

Section 7.1 Discharge of Lien and Security Interest. Upon payment in full of all of the Parity Bonds and Parity Obligations and of all amounts owing under all Parity Credit Agreements (including Reserve Fund Obligations), the pledge and lien on the Net Revenues arising under this Master Resolution shall cease, terminate and be void; provided, however, that such discharge of this Master Resolution shall not terminate the powers and rights granted to, or the obligation of the Authority to secure the services of, a Fiscal Agent with respect to the payment, transfer and exchange of the Parity Bonds and Parity Obligations.

Section 7.2 Provision for Payment of Senior Lien Obligations. Senior Lien Obligations (or any portion of the Senior Lien Obligations) shall be deemed to have been paid, retired and no longer Outstanding within the meaning of Section 7.1 if:

(a) there shall have been irrevocably deposited in a special escrow fund established for such purpose either (i) sufficient money or (ii) Defeasance Obligations of such maturities and interest payment dates and bearing such interest as will, without further investment or reinvestment of either the principal amount thereof or the interest earnings thereon (said earnings also to be held in trust), be sufficient (as confirmed by a report of an independent certified public accountant or firm of certified public accountants) together with any money referred to in Section 7.2(a)(i) above, for the payment at their respective maturities or redemption dates prior to maturity of the principal thereof and the premium (if any) and interest to accrue thereon at such maturity or redemption dates, as the case may be;

(b) there shall have been paid (or provision shall have been duly made for the payment of) all fees and expenses of any Fiscal Agent for such Senior Lien Obligations due or to become due; and

(c) if any such Senior Lien Obligations are to be redeemed on any date prior to their maturity, the Fiscal Agent shall have received in form satisfactory to it irrevocable instructions from an Authorized Representative to redeem such Senior Lien Obligations on such date and irrevocable power authorizing the Fiscal Agent to give such redemption notices.

Limitations elsewhere specified herein regarding the investment of money held by the Fiscal Agent in the Interest and Sinking Fund shall not be construed to prevent the depositing and holding of moneys and investments in the special escrow fund described in the preceding subparagraph (a)(ii) for the purpose of defeasing the lien of this Master Resolution as to Senior Lien Obligations which have not yet become due and payable. In addition, all money so deposited with the Fiscal Agent as provided in this Section 7.2 may also be invested and reinvested, at the direction of an Authorized Representative, in Defeasance Obligations, maturing in the amounts and times as hereinbefore set forth, and all income from all Defeasance Obligations in the hands of the Fiscal Agent pursuant to this Section 7.2 which is not required for the payment of the Senior Lien Obligations and interest and premium, if any, thereon with

respect to which such money shall have been so deposited shall be deposited in the Interest and Sinking Fund as and when realized and collected for use and application as are other moneys deposited in the Interest and Sinking Fund.

Senior Lien Obligations issued as variable rate obligations shall be deemed to be paid and discharged only if the amount held under 7.2(a)(i) or (ii) above shall be sufficient to provide for the payment of such Senior Lien Obligations assuming the highest possible interest rate on such Senior Lien Obligations (as established in accordance with the proceedings authorizing the issuance of such Senior Lien Obligations) to the earlier of the first tender date on which such Senior Lien Obligations will be tendered or the redemption date on which such Senior Lien Obligations have been called for redemption.

In the proceedings providing for the payment of Senior Lien Obligations at their stated maturity or maturities in accordance with this Section 7.2, any determination not to redeem such Senior Lien Obligations may be made revocable by the Authority and the Authority may reserve the right to redeem such Senior Lien Obligations on any date that such Senior Lien Obligations would have been subject to redemption at the option of the Authority in accordance with the proceedings that authorized the issuance of such Senior Lien Obligations.

In addition to or in lieu of the provisions for payment set forth in this Section 7.2, Senior Lien Obligations of any series or installment may be defeased in any manner provided in the Supplemental Resolution authorizing the issuance of such series or installment of Senior Lien Obligations.

[End of Article VII]

## ARTICLE VIII

### MISCELLANEOUS

Section 8.1 No Recourse Against Authority Officials. No recourse shall be had for the payment of principal of, premium, if any, or interest on any Parity Bonds or Parity Obligations (or for payment of any costs or amounts payable under any Parity Credit Agreement) or for any claim based thereon or on this Master Resolution against any official of the Authority or any natural person executing any Senior Lien Obligation.

Section 8.2 Related Matters. In order that the Authority shall satisfy in a timely manner all of its obligations under this Master Resolution and any Parity Credit Agreements, the Authorized Representatives and all other appropriate officers and agents of the Authority are authorized and directed to take all other actions that are reasonably necessary, including without limitation, executing by manual or facsimile signature and delivering on behalf of the Authority all certificates, consents, receipts, requests, notices, investment agreements, and other documents as may be reasonably necessary to satisfy the Authority's obligations under this Master Resolution and any Parity Credit Agreements. If requested by the Attorney General of Texas or his representatives, an Authorized Representative or Bond Counsel may authorize such ministerial changes in the written text of this Master Resolution as are necessary to obtain the Attorney General's approval of any Senior Lien Obligations and as he determines are consistent with the intent and purposes of this Master Resolution, which determination shall be final.

Section 8.3 Severability. If any Section, paragraph, clause or provision of this Master Resolution shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such Section, paragraph, clause or provision shall not affect any of the remaining provisions of this Master Resolution.

Section 8.4 Open Meeting. It is hereby found, determined and declared that a sufficient written notice of the date, hour, place and subject of the meeting of the Board at which this Master Resolution was adopted was posted at a place convenient and readily accessible at all times to the general public at the offices of the Authority for the time required by law preceding this meeting, as required by the Open Meetings Act, Chapter 551, Texas Government Code, as amended, and that this meeting has been open to the public as required by law at all times during which this Master Resolution and the subject matter thereof has been discussed, considered and formally acted upon. The Board further ratifies, approves and confirms such written notice and the contents and posting thereof.

Section 8.5 Repealer. All orders, or parts thereof inconsistent herewith, are hereby repealed to the extent of such inconsistency.

[End of Article VIII]

PASSED AND APPROVED THIS 19 day of May, 2003.

Ron Baker  
\_\_\_\_\_  
President, Board of Directors,  
North Harris county Regional Water Authority

ATTEST:

[Signature]  
\_\_\_\_\_  
Secretary, Board of Directors,  
North Harris county Regional Water Authority



**EXHIBIT A**  
**DEFINITIONS**

“Act” shall mean Chapter 1029, Acts of the 76th Texas Legislature 1999 (Regular Session), as amended by Chapter 1296, Acts of the 77th Texas Legislature 2001 (Regular Session) and as the Act may be further amended from time to time.

“Adjusted Net Revenues” shall mean the sum of (i) Net Revenues and (ii) the balance in the Coverage Fund and the Improvement Fund on the last day of the Fiscal Year.

“Annual Debt Service Requirements” shall mean, for any Fiscal Year, the principal of, interest on, and other payments due from the Authority under, all Senior Lien Obligations coming due (or that could come due on demand of the owner thereof other than by acceleration or other demand conditioned upon default by the Authority on such Senior Lien Obligations, or be payable in respect of any required purchase of such Senior Lien Obligations by the Authority) in such Fiscal Year (including any costs and amounts due and owing under any Credit Agreements), except to the extent that any such principal, interest or other payments are to be paid from amounts (including investment earnings thereon) held in the Interest and Sinking Fund, the Reserve Fund, or any other Fund into which amounts have been set aside for the purpose of providing for the payment of such principal, interest or other payments; and, for such purposes, any one or more of the following rules shall apply at the election of the Authority:

(a) Committed Take Out. If the Authority has entered into a Credit Agreement constituting a binding commitment within normal commercial practice to discharge any of its Funded Debt at its stated maturity (or, if due on demand, at any date on which demand may be made) or to purchase any of its Funded Debt at any date on which such Parity Bonds are subject to required purchase, all under arrangements whereby the Authority’s obligation to repay the amounts advanced for such discharge or purchase constitutes Funded Debt, then the portion of the Funded Debt committed to be discharged or purchased shall be excluded from such calculation and the principal of and interest on the Funded Debt incurred for such discharging or purchase that would be due in the Fiscal Year for which the calculation is being made, if incurred at the stated maturity or purchase date of the Funded Debt to be discharged or purchased, shall be added;

(b) Balloon Debt. If, as of the Issue Date and as of the date of any calculation of Annual Debt Service Requirements, any portion of the maturing principal (including the accretion of interest resulting from original issue discount or compounding of interest) of any series or issue of Funded Debt (or any amount payable in respect of any required purchase of such Funded Debt by the Authority) is expected to be paid from a source other than Net Revenues (such principal or purchase price being referred to herein as “Balloon Debt”), such expectation being evidenced by a certificate of an Authorized Representative, the amount of principal of such Balloon Debt taken into account during any Fiscal Year shall be equal to the debt service calculated using the principal amount of such Balloon Debt amortized over the Term of Issue on a substantially level debt service



basis at an assumed interest rate equal to the rate borne by such Balloon Debt on the date of calculation;

(c) Consent Sinking Fund. In the case of Balloon Debt (as defined in clause (b) above), if an Authorized Representative shall deliver to the Authority a certificate providing for the retirement of (and the instrument creating such Balloon Debt shall permit the retirement of), or for the accumulation of a sinking fund for (and the instrument creating such Balloon Debt shall permit the accumulation of a sinking fund for), such Balloon Debt according to a fixed schedule stated in such certificate ending on or before the Fiscal Year in which such principal (and premium, if any) is due, then the principal of (and, in the case of retirement, or to the extent provided for by the sinking fund accumulation, the premium, if any, and interest and other debt service charges on) such Balloon Debt shall be computed as if the same were due in accordance with such schedule, provided that this clause (c) shall apply only to Balloon Debt for which the installments previously scheduled have been paid or deposited to the sinking fund established with respect to such Senior Lien Obligations on or before the times required by such schedule; and provided further that this clause (c) shall not apply where the Board has elected to apply the rule set forth in clause (b) above;

(d) Prepaid Senior Lien Obligations. Principal of and interest on Senior Lien Obligations, or portions thereof, shall not be included in the computation of the Annual Debt Service Requirements for any Fiscal Year for which such principal or interest are payable from funds on deposit or set aside in trust for the payment thereof at the time of such calculations (including without limitation capitalized interest and accrued interest so deposited or set aside in trust) with a financial institution acting as fiduciary with respect to the payment of such Senior Lien Obligations;

(e) Variable Rate. As to any Senior Lien Obligation that bears interest at a variable interest rate that cannot be ascertained at the time of calculation of the Annual Debt Service Requirement then, at the option of an Authorized Representative, either (i) an interest rate equal to the average rate borne by such Senior Lien Obligation(s) (or by comparable debt in the event that such Senior Lien Obligation(s) have not been outstanding during the preceding twelve (12) months) for any twelve (12) month period ending within thirty (30) days prior to the date of calculation or (ii) an interest rate equal to the BMA (Bond Market Association) Index as most recently published in *The Bond Buyer* (or a comparable index if such index is no longer published in *The Bond Buyer*), shall be presumed to apply for all future dates;

(f) Commercial Paper. With respect to any Senior Lien Obligations issued in the form of commercial paper with maturities not exceeding 270 days, the interest on such Senior Lien Obligations shall be calculated in the manner provided in clause (e) of this definition and (to the extent that the principal of such Senior Lien Obligations is expected to be paid from a source other than Net Revenues, such expectation being evidenced by a certificate of an Authorized Representative) the maturity schedule shall be calculated in the manner provided in clause (b) of this definition; and

(g) Credit Agreement Payments. If the Authority has entered into a Credit Agreement in connection with an issue of Senior Lien Obligations, payments due under the Credit Agreement (other than payments for fees and expenses) by either the Authority or the other party to such Credit Agreement shall be included in such calculation, except to the extent that (i) the payments are already taken into account under clause (a) through (f) above, (ii) the payments are accounted for by the Authority as Gross Revenues or (iii) payments under the Credit Agreement are payable by a party that has a long term credit rating (in a generic rating category, without regard to modifiers within a rating category) that is lower than the long term credit rating of the Authority; and any payments otherwise included above under clause (a) through (f) that are to be replaced by payments under a Credit Agreement (pursuant to this clause (g)), from either the Authority or the other party to such Credit Agreement, shall be excluded from such calculation.

With respect to any calculation of historic data, only those payments actually made in the subject period shall be taken into account in making such calculation and, with respect to prospective calculations, only those payments reasonably expected to be made in the subject period shall be taken into account in making the calculation.

“*Authority*” shall mean the North Harris County Regional Water Authority (and, where appropriate, the Board) and any successor to the Authority.

“*Authorized Representative*” shall mean each of the President, Vice President or Treasurer of the Board and the General Manager of the Authority, together with any other officer or other employee of the Authority designated by the Board of Directors to act on behalf of the Board, as evidenced by written certificate of the Secretary of the Board or the General Manager and containing such officer’s or employee’s specimen signature.

“*Bond Counsel*” shall mean any attorney or firm of attorneys of nationally recognized standing on the subject of municipal bonds acceptable to the Board.

“*Bond Insurance Policy*” shall mean a Credit Agreement issued as an insurance policy by a Bond Insurer insuring or guaranteeing the payment of principal of and interest on any Senior Lien Obligations.

“*Bond Insurer*” shall mean an entity that insures or guarantees the payment of principal of and interest on any of the Senior Lien Obligations.

“*Budgeted Operation and Maintenance Expenses*” means, in each Fiscal Year, an amount equal to the aggregate amount of the Operation and Maintenance Expenses of the System for the Fiscal Year as fixed by the then current budget for that year.

“*Business Day*”, for any Senior Lien Obligation, shall have the meaning set forth in the Supplemental Resolution therefor.

“*Capital Contribution*” shall mean the amount paid or credited in respect of a contribution or prepayment received from any source by the Authority in payment of a person’s share of the cost of financing the acquisition, construction and equipment of the System as

determined by the Authority pursuant to an agreement entered into with the Authority providing for such Capital Contribution.

“*Capital Contribution Credit*” shall mean, for any period, the amount calculated by the Authority as the amortized portion of a Capital Contribution for such period.

“*Capital Expenses and Major Repair and Replacement Costs*” shall mean capitalized expenditures that are amortized in accordance with generally accepted accounting principles or such other accounting principles as the Authority may be required to utilize from time to time pursuant to state law or regulation over a period of not less than two (2) years.

“*Chapter 1207*” shall mean Chapter 1207, Texas Government Code, as amended, or any successor or supplemental statutory provision relating to the subject matter thereof.

“*Chapter 1371*” shall mean Chapter 1371, Texas Government Code, as amended, or any successor or supplemental statutory provision relating to the subject matter thereof.

“*Code*” shall mean the Internal Revenue Code of 1986, as amended from time to time.

“*Coverage Fund*” shall mean the special fund created pursuant to Section 4.1 hereof.

“*Coverage Fund Requirement*” shall mean 25% of the maximum Annual Debt Service Requirements for the Outstanding Senior Lien Obligations.

“*Coverage Requirement*” shall mean an amount equal to 120% of the maximum Annual Debt Service Requirements for Covered Debt in any Fiscal Year.

“*Covered Debt*” shall mean all Outstanding Senior Lien Obligations.

“*Credit Agreement*” shall mean any agreement (including any loan agreement, revolving credit agreement, agreement establishing a line of credit, letter of credit, reimbursement agreement, insurance contract, commitment to purchase an obligation, purchase or sale agreement, interest rate swap agreement, cap or floor agreement, interest rate lock agreement, currency swap agreement, or other commitment or agreement) entered into by the Board with any other Person in connection with the authorization, issuance, sale, resale, security, exchange, payment, purchase, remarketing, redemption, refinancing, defeasance, hedging or administration of any bonds or other obligations (or the interest on such bonds or other obligations, or both), as authorized by the Act, Chapter 1371, or other applicable law.

“*Credit Agreement Provider*” shall mean the Person, if any, that is then obligated to the Authority under any Credit Agreement.

“*Defeasance Obligations*” shall mean any investment that is authorized for the purpose of defeasing an obligation of the Authority pursuant to Chapter 1207, Texas Government Code.

“*Eligible Investments*” shall mean any investment authorized by the Act or the Public Funds Investment Act (Chapter 2256, Texas Government Code, as amended from time to time).

"*Engineer*" shall mean any registered or licensed professional engineer having a favorable reputation for skill and experience in the field of designing, preparing plans and specifications for and supervising construction of water utility systems and related facilities who is entitled to practice and practicing as such under the laws of the State.

"*Fiscal Agents*" shall mean any fiscal agent, issuing agent, paying agent, remarketing agent, auction agent, market agent, broker-dealer, trustee or other similar agent appointed pursuant to a Supplemental Resolution and serving in one or more of such or similar capacities in accordance with such Supplemental Resolution.

"*Fiscal Year*" shall mean the Authority's fiscal year, which currently runs from January 1 to December 31 of each year, but which may be changed from time to time by the Authority.

"*Fund*" shall mean any fund created and established by this Master Resolution.

"*Funded Debt*" shall mean all Senior Lien Obligations that mature by their terms (in the absence of the exercise of any earlier right of demand), or are renewable at the option of the Board to a date, more than one year after the original creation, assumption, or guarantee of such Senior Lien Obligations. Funded Debt shall include Senior Lien Obligations issued pursuant to a commercial paper or similar financing program that (i) provides for the periodic refinancing of such Senior Lien Obligations through the issuance of other Senior Lien Obligations and (ii) that expires or terminates by its terms more than one year after the original creation or establishment of such commercial paper or similar financing program.

"*Gross Revenues*" shall mean all revenues, income and receipts of every nature (including any investments purchased with such revenues, income or receipts) derived or received by the Authority from (a) the operation and ownership of the System; (b) the collection of the Pumpage Fee; (c) the investment or deposit of money in the Revenue Fund, the Interest and Sinking Fund, the Reserve Fund, the Coverage Fund, the Operation and Maintenance Reserve Fund and the Improvement Fund; and (d) any other revenues hereafter pledged to the payment of all Senior Lien Obligations. Gross Revenues shall not include any of (i) grants from, or payments by, any federal, state or local governmental agency or authority or any other entity or person, the use of which is restricted by law or by the terms of the grant or payment to capital expenditures of the System (including Capital Contributions), (ii) receipts of capital assets, interest and sinking funds or debt service reserve funds of conservation and reclamation districts or other public or private water or sewer systems annexed, acquired or otherwise assumed by the Authority or (iii) any interest earned on items (i) or (ii) above.

"*Groundwater Reduction Plan*" shall mean the plan developed, implemented, participated in and enforced by the Authority pursuant to the Act (as such plan may be revised from time to time) to supply water, reduce reliance on groundwater, regulate groundwater pumping and water usage and require and allocate water usage among Persons in order to comply with the requirements imposed by the Subsidence District, including any applicable groundwater reduction requirements.

"*Improvement Fund*" shall mean the special fund created pursuant to Section 4.1 hereof.

*"Independent Rate Consultant"* shall mean a nationally recognized independent firm, person or corporation having a widely known and favorable reputation for special skill, knowledge and expertise in methods of development, operation, financing and management of water utility systems of approximately the same size as the System.

*"Insurance Agreement"* shall mean an agreement between the Authority and the Bond Insurer respecting a municipal bond debt service reserve insurance policy constituting a Reserve Fund Obligation.

*"Interest and Sinking Fund"* shall mean the special fund created pursuant to Section 4.1 hereof to secure payment of the Senior Lien Obligations.

*"Issue Date"* shall mean, for any series or installment of Parity Bonds or Parity Obligations, the date on which such series or installment of Parity Bonds or Parity Obligations is delivered to the purchaser or purchasers thereof upon original issuance or execution thereof and, for any Parity Credit Agreement, the date of execution thereof.

*"Junior Lien Obligations"* shall mean any bonds, notes or other obligations or evidences of indebtedness secured by a pledge of and lien on the Net Revenues (in accordance with the provisions of Section 4.2 hereof) that is expressly (i) junior and subordinate to the pledge of and lien on such security in favor of all Senior Lien Obligations theretofore or thereafter issued and (ii) senior and prior to the pledge of and lien on such security in favor of any Subordinate Lien Obligations theretofore or thereafter issued.

*"Master Resolution"* and "hereunder" shall mean this Master Resolution, as the same may be amended or supplemented from time to time as permitted hereby.

*"Net Revenues"* shall mean all Gross Revenues remaining after deducting the Operation and Maintenance Expenses.

*"Operation and Maintenance Expenses"* shall mean the reasonable and necessary expenses of operation and maintenance of the Authority and the System, including (a) all services, salaries, labor, materials, repairs and extensions necessary to accomplish the purposes of the Act and to render efficient service (but only such repairs and extensions as, in the judgment of the Board, are necessary to accomplish the purposes of the Authority, keep the System in operation and render adequate service to the customers of the Authority and the inhabitants thereof) and (b) all payments (including payments of amounts equal to all or a part of the debt service on bonds issued by other political subdivisions and authorities of the State of Texas) under contracts for the impoundment, conveyance or treatment of water which are (i) entered into by the Authority in order to render efficient service throughout the territory of the Authority and to customers of the System or (ii) now or hereafter defined as operating expenses by the Legislature of Texas, and the treatment of such payments as Operation and Maintenance Expenses shall not be affected in any way if, subsequent to the entering into such contracts, the Authority acquires as a part of the System title to any properties or facilities used to impound, convey or treat water under such contracts, or if the Authority contracts to acquire title to such properties or facilities as a part of the System until the final payment of debt service on the bonds issued to finance such properties or facilities. Neither (i) allowances for depreciation or

amortization (including Capital Contribution Credits) nor (ii) Capital Expenses and Major Repair and Replacement Costs shall be considered as an Operation and Maintenance Expense.

*"Operation and Maintenance Reserve Fund"* shall mean the special fund created pursuant to Section 4.1 hereof.

*"Operation and Maintenance Reserve Requirement"* means at any time in each Fiscal Year an amount at least equal to one-sixth (1/6) (or such greater fraction as shall be determined by the Authority) of the aggregate amount of the Operation and Maintenance Expenses of the System for the Fiscal Year as fixed by the then current budget for that year, which amount shall be deposited, accumulated or reaccumulated, and maintained in the Operation and Maintenance Reserve Fund pursuant to Section 4.6 hereof.

*"Outstanding,"* when used with reference to the Parity Bonds and Parity Obligations shall mean, as of a particular date, all such bonds and obligations theretofore delivered except: (a) any such bond or obligation canceled by or on behalf of the Authority at or before said date; (b) any such bond or obligation defeased pursuant to the defeasance provisions of the order or resolution authorizing its issuance, or otherwise defeased as permitted by applicable law; and (c) any such bond or obligation in lieu of or in substitution for which another bond or obligation shall have been delivered pursuant to the order or resolution authorizing the issuance of such bond or obligation.

*"Owner,"* or any similar term, when used in conjunction with any Senior Lien Obligation, means the registered owner of any Senior Lien Obligation which is registered for payment.

*"Parity Bond"* or *"Parity Bonds"* shall mean bonds authorized to be issued in series and installments from time to time under, and secured by the lien established in favor of Senior Lien Obligations pursuant to, this Master Resolution.

*"Parity Credit Agreement"* shall mean any Credit Agreement authorized by the Board in connection with or relating to any series or installment of Parity Bonds or Parity Obligations or other Parity Credit Agreement which is secured by the pledge of and lien on the Gross Revenues established in favor of Senior Lien Obligations pursuant to this Master Resolution. To the extent permitted by law, the Board may approve one or more Parity Credit Agreements subsequent to the authorization and issuance of any Parity Bonds or Parity Obligations benefiting from such Parity Credit Agreement(s).

*"Parity Obligation"* shall mean notes or other obligations or evidences of indebtedness (other than Parity Bonds) authorized to be issued or incurred from time to time under, and secured by the lien established in favor of Senior Lien Obligations pursuant to, this Master Resolution.

*"Person"* (or words importing persons) shall mean any individual, corporation, organization, government or governmental subdivision or agency, business trust, estate, trust, partnership, association, and any other legal entity.

*"Pro-Forma Coverage Requirement"* shall mean an amount equal to 130% of the maximum Annual Debt Service Requirements for Covered Debt in any Fiscal Year.

*"Pro-forma Net Revenues"* shall mean the Adjusted Net Revenues adjusted to give effect to (a) any increase in rates, fees or other charges of the Authority or the System or (b) the addition of territory to the Authority that was placed into effect or consummated prior to the adoption of the Supplemental Resolution authorizing the Senior Lien Obligations then being issued (as if such increase or addition had been in effect or consummated throughout the period being considered), as certified by an Independent Rate Consultant.

*"Pumpage Fee"* shall mean the fee charged by the Authority (as established by the Board from time to time) on water (i) pumped from wells located in the Authority's boundaries (except for any wells that are exempt from payment of such fee by law or rules of the Authority or the Subsidence District) or (ii) produced outside of the Authority's boundaries and transported into the Authority's boundaries.

*"Rate Coverage Requirement"* shall mean (a) when measured against Net Revenues, an amount equal to 110% of the Annual Debt Service Requirements for Covered Debt for the Fiscal Year or (b) when measured against Adjusted Net Revenues, an amount equal to 120% of the Annual Debt Service Requirements for Covered Debt for the Fiscal Year.

*"Rating Agency"* shall mean any nationally recognized statistical rating organization designated by an Authorized Representative. The designation of a Rating Agency other than Moody's Investors' Service, Inc. or Standard & Poor's, a division of The McGraw-Hill Companies, Inc. (or their respective successors) shall be subject to the approval of the Bond Insurer(s), if any.

*"Rebate Fund"* shall mean the special fund which the Authority may create pursuant to Section 4.8 hereof.

*"Regulations"* means any applicable Internal Revenue Service Regulations promulgated in proposed, temporary or final form. Proposed regulations are "applicable" only if, in the event they are adopted in final form, such regulations would apply to the Senior Lien Obligations.

*"Reserve Fund"* shall mean the special fund created pursuant to Section 4.4 hereof to secure payment of the Senior Lien Obligations.

*"Reserve Fund Obligation"* shall mean a Parity Credit Agreement satisfying the requirements of Section 4.4 which is deposited in the Reserve Fund to meet all or part of the Reserve Fund Requirement.

*"Reserve Fund Requirement"* shall mean an amount (which may consist of money, authorized investments, one or more Reserve Fund Obligations, or any combination thereof) equal to the least of (a) 10% of the original principal amount of the Outstanding Senior Lien Obligations, (b) 125% of the average Annual Debt Service Requirement on the Outstanding Senior Lien Obligations, (c) 100% of the maximum Annual Debt Service Requirement on the Outstanding Senior Lien Obligations, or (d) an amount which, when added to the existing Reserve Fund Requirement for Outstanding Senior Lien Obligations, will not cause the total Reserve Fund Requirement to exceed the maximum Annual Debt Service Requirement on the Outstanding Senior Lien Obligations; provided the Reserve Fund Requirement for the Outstanding Senior Lien Obligations may be revised to a lesser amount in accordance with

requirements of Regulations specifying the maximum amount in a reserve fund permitted to be invested without regard to investment yield.

“*Revenue Fund*” shall mean the Authority’s fund established and maintained to collect and receive Gross Revenues in accordance with Article IV of this Master Resolution.

“*Senior Lien Obligation*” shall mean (i) all Outstanding Parity Bonds and Parity Obligations and (ii) any Parity Credit Agreement to the extent that it is secured by a senior lien on and pledge of the Net Revenues in accordance with the requirements of Article III.

“*Special Project*” shall mean, to the extent permitted by law, any of the Authority’s network of pipelines, conduits, canals, pumping stations, force mains, treatment plants, and any other construction, device, or related appurtenance used to treat or transport water (including ground water or surface water) or wastewater, declared by the Authority not to be part of the System, for which the costs of acquisition, construction, and installation are paid from proceeds of a financing transaction other than the issuance of bonds payable from Gross Revenues and for which all maintenance and operation expenses are payable from sources other than Gross Revenues, but only to the extent that and for so long as all or any part of the revenues or proceeds of which are or will be pledged to secure the payment or repayment of such costs of acquisition, construction, and installation under such financing transaction.

“*State*” shall mean the State of Texas.

“*Subordinate Lien Obligations*” shall mean any notes, bonds, other obligations or evidences of indebtedness secured by a pledge of lien on the Net Revenues (in accordance with the provisions of Section 4.2 hereof) that is expressly junior and subordinate to the pledge of and lien on such security in favor of all Senior Lien Obligations and Junior Lien Obligations.

“*Subsidence District*” shall mean the Harris-Galveston Coastal Subsidence District.

“*Supplemental Resolution*” means any resolution adopted by the Board (together with any supplements or amendments thereto) specifying the designation and aggregate principal amount for any series or installment of Parity Bonds or Parity Obligations and/or approving one or more Parity Credit Agreements; it being acknowledged that if a Parity Credit Agreement is provided to secure or pay a series or installment of Parity Bonds or Parity Obligations, such Parity Credit Agreement must secure all of the Parity Bonds or Parity Obligations of such series or installment, but that different Parity Credit Agreements may secure different issues or series of Parity Bonds or Parity Obligations.

“*System*” shall mean all works, plants, properties, facilities, improvements, equipment, interests, appliances, rights and powers constituting the Authority’s network of pipelines, conduits, canals, pumping stations, force mains, treatment plants, and any other construction, device, or related appurtenance used to treat or transport water (including ground water or surface water) or wastewater, and all future extensions, replacements, betterments, additions, improvements, enlargements, acquisitions, purchases and repairs to the System, including, all those heretofore or hereafter acquired as a result of the annexation and dissolution or merger of conservation and reclamation districts with the Authority or the acquisition of the properties or assets of any other public, private or non-profit entities. The Authority’s rights under the Water



Supply Contract Between the City of Houston, Texas and the North Harris County Regional Water Authority, dated as of December 16, 2002, and any similar water supply contracts shall constitute part of the System. The System shall not include any Special Project.

*“Term of Issue”* means with respect to any Balloon Debt, including, without limitation, commercial paper, a period of time equal to the greater of (i) the period of time commencing on the date of issuance of such Balloon Debt and ending on the final maturity date of such Balloon Debt or the maximum maturity date in the case of commercial paper or (ii) thirty (30) years.

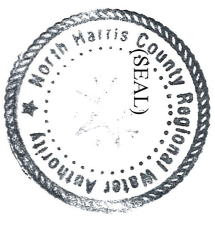


such meeting, and each of such officers and members consented, in advance, to the holding of such meeting for such purpose; that such meeting was open to the public as required by law; and that public notice of the date, hour, place and subject of such meeting was given as required by Chapter 551, Texas Government Code, as amended.

SIGNED AND SEALED this 2nd day of November, 2015.  
NORTH HARRIS COUNTY REGIONAL  
WATER AUTHORITY

By: *Alvin D. Beall*  
President, Board of Directors

*George S. Sitler*  
Secretary, Board of Directors



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**SIXTH SUPPLEMENTAL RESOLUTION**

authorizing the issuance of

**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
SENIOR LIEN REVENUE BONDS, SERIES 2015**

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November 2, 2015

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STATE OF TEXAS                   §  
  §  
NORTH HARRIS COUNTY         §  
REGIONAL WATER AUTHORITY   §

SIXTH SUPPLEMENTAL RESOLUTION AUTHORIZING ISSUANCE OF NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY SENIOR LIEN REVENUE BONDS; PRESCRIBING THE TERMS AND CONDITIONS THEREOF; PROVIDING FOR PAYMENT THEREOF AND THE SECURITY THEREFOR; MAKING OTHER PROVISIONS REGARDING SUCH BONDS; AND CONTAINING OTHER MATTERS RELATED THERETO

BE IT RESOLVED AND ORDERED BY THE BOARD OF DIRECTORS OF NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY:

ARTICLE I

FINDINGS AND DETERMINATIONS

Section 1.1 Findings and Determinations. It is hereby officially found and determined that:

- (a) Pursuant to a Master Resolution adopted on May 19, 2003 (the "Master Resolution") the Board of Directors (the "Board") of the North Harris County Regional Water Authority (the "Authority") provided for the establishment of a financing program for revenue-supported obligations of the Authority issued to carry out the powers and authority conferred by the Act.
- (b) The Master Resolution authorized the adoption of Supplemental Resolutions (hereinafter defined) to provide for the authorization, issuance, sale and delivery, and to establish certain terms (including the form, characteristics, interest rate(s), and provisions of payment and redemption) of each series or installment of Senior Lien Obligations (hereinafter defined) issued thereunder.
- (c) The Board has previously authorized the issuance of the Previously Issued Senior Lien Obligations (hereinafter defined) pursuant to the Master Resolution.
- (d) The Board has determined that it is in the best interest of the Authority to issue a series of bonds as Senior Lien Obligations as herein provided, which Senior Lien Obligations shall be issued pursuant to the Master Resolution and particularly Section 3.4 thereof.

[End of Article I]

ARTICLE II

AUTHORITY AND DEFINITIONS

Section 2.1 Supplemental Resolution. This Resolution is authorized pursuant to Sections 3.1 and 6.5 of the Master Resolution.

Section 2.2 Definitions. Capitalized terms used in this Resolution and not otherwise defined herein shall have the meanings assigned to such terms in Section 2.1 of the Master Resolution. In addition, capitalized terms used in this Resolution and in the recitals hereto shall have the meanings set forth in Exhibit A unless the context or use clearly indicates another or different meaning or intent and such definitions shall be equally applicable to both the singular and plural forms of the terms and words herein defined.

Section 2.3 Rules of Construction. For all purposes of this Resolution, unless the context requires otherwise, all references to designated Articles, Sections and other subdivisions are to articles, sections and other subdivisions of this Resolution. References to any constitutional, statutory or regulatory provision means such provision as it exists on the date this Resolution is adopted by the Board and any future amendment thereto or successor provision thereof.

Section 2.4 Interpretations. All terms defined herein and all pronouns used in this Resolution shall be deemed to apply equally to singular and plural and to all genders. The titles and headings of the articles and sections of this Resolution and the Table of Contents of this Resolution have been inserted for convenience of reference only and are not to be considered a part hereof and shall not in any way modify or restrict any of the terms or provisions hereof. This Resolution and all the terms and provisions hereof shall be liberally construed to effectuate the purposes set forth herein and to sustain the validity of the Series 2015 Bonds and the validity of the lien on and pledge of the Net Revenues to secure the payment of the Series 2015 Bonds.

[End of Article II]

ARTICLE III

AUTHORIZATION AND TERMS OF THE SERIES 2015 BONDS

Section 3.1 Authorization, Terms and Purpose. In accordance with and subject to the terms, conditions and limitations established in the Master Resolution and this Resolution, a series of Bonds, which shall be designated as the "NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY SENIOR LIEN REVENUE BONDS, SERIES 2015", is hereby authorized to be issued in an aggregate principal amount of EIGHTY MILLION FOUR HUNDRED THIRTY-FIVE THOUSAND AND NO/100 DOLLARS (\$80,435,000). The Series 2015 Bonds shall be issued for the purposes of (a) financing the design, acquisition, and construction of the System, including: (i) the Authority's proportionate share of the costs to expand the City of Houston's Northeast Water Purification Plant; (ii) a shared transmission pipeline (Second Source Transmission Line Phase J); (iii) the initial phase of the Authority's 2025 Transmission System (Second Source Transmission Line Phase II); and (iv) the initial phase of the Authority's 2025 Distribution System; (b) funding a debt service reserve fund or a Reserve Fund Obligation; (c) funding capitalized interest; and (d) paying costs of issuance of the Series 2015 Bonds, all under and pursuant to the authority of the Act and all other applicable law.

Section 3.2 Interest Payment Dates, Interest Rates and Maturities.

(a) The Bonds shall be dated December 1, 2015. The Bonds shall be issued in fully registered form, without coupons, in the denomination of \$5,000 or any integral multiple thereof (an "Authorized Denomination"). The Bonds shall be numbered separately from R-1 upward.

(b) The Bonds shall mature on December 15 in the years and in the principal amounts and shall bear interest at the rates set forth in the following schedule:

Year	Principal Amounts (\$)	Interest Rates (%)	Year	Principal Amounts (\$)	Interest Rates (%)
2017	2,030,000	0.450	2032	2,705,000	2.800
2018	2,045,000	0.670	2033	2,785,000	2.860
2019	2,065,000	0.860	2034	2,865,000	2.880
2020	2,090,000	1.050	2035	2,955,000	2.910
2021	2,115,000	1.220	2036	3,045,000	3.110
2022	2,150,000	1.390	2037	3,135,000	3.110
2023	2,185,000	1.570	2038	3,240,000	3.110
2024	2,225,000	1.680	2039	3,335,000	3.120
2025	2,270,000	1.760	2040	3,440,000	3.120
2026	2,320,000	1.970	2041	3,550,000	3.200
2027	2,365,000	2.190	2042	3,665,000	3.200
2028	2,425,000	2.360	2043	3,795,000	3.210
2029	2,490,000	2.540	2044	3,915,000	3.210
2030	2,555,000	2.650	2045	4,050,000	3.210
2031	2,625,000	2.750			

(c) Interest shall accrue and be paid each Bond respectively until its maturity or prior redemption, from the Issuance Date or the most recent interest payment date to which interest has been paid or provided for at the rates set forth above. Such interest shall be payable semiannually until maturity or prior redemption on each Interest Payment Date, computed on the basis of a 360-day year of twelve 30-day months.

(d) If interest on any Series 2015 Bond is not paid on any Interest Payment Date and continues unpaid for thirty (30) days thereafter, the Paying Agent/Registrar shall establish a new record date for the payment of such interest, to be known as a "Special Record Date." The Paying Agent/Registrar shall establish a Special Record Date when funds to make such interest payment are received from or on behalf of the Authority. Such Special Record Date shall be fifteen (15) days prior to the date fixed for payment of such past due interest, and notice of the date of payment and the Special Record Date shall be sent by United States mail, first class, postage prepaid, not later than five (5) days prior to the Special Record Date, to each affected Registered Owner as of the close of business on the day prior to mailing of such notice.

Section 3.3 Redemption Prior to Maturity. The Bonds shall be subject to redemption before their scheduled maturity only as provided in this Section.

(a) *Mandatory Redemption.* The Bonds shall not be subject to mandatory redemption prior to their scheduled maturity.

(b) *Optional Redemption.* The Authority reserves the right and option to redeem Bonds maturing on and after December 15, 2026, in inverse order of maturity, in whole or in part before their respective scheduled maturity dates, on December 15, 2025, or on any date thereafter (such redemption date or dates to be fixed by the Authority), at a price equal to the principal amount of the Series 2015 Bonds so called for redemption plus accrued interest to the date fixed for redemption. The Authority, at least forty-five (45) days before the redemption date, shall notify the Paying Agent/Registrar of such redemption date and of the principal amount of Series 2015 Bonds to be redeemed.

(c) *Partial Redemption.*

(i) If less than all of the Series 2015 Bonds are to be redeemed, the Authority shall determine the maturity or maturities to be redeemed and shall direct the Paying Agent/Registrar to call by lot the Series 2015 Bonds or portion thereof, within such maturity or maturities and in such principal amounts for redemption.

(ii) A portion of a single Series 2015 Bond of a denomination greater than \$5,000 may be redeemed, but only in a principal amount equal to \$5,000 or any integral multiple thereof. If such a Series 2015 Bond is to be partially redeemed, the Paying Agent/Registrar shall assign a separate number for each of \$5,000 portion of Series 2015 Bonds and sell the portion or portions of the Series 2015 Bonds to be redeemed by lot or by any other customary method that results in a random selection.

(iii) Upon surrender of any Series 2015 Bond for redemption in part, the Paying Agent/Registrar, in accordance with the provisions of this Resolution, shall authenticate and deliver an exchange Series 2015 Bond or Bonds in an aggregate principal amount equal to the unredeemed portion of the Series 2015 Bond so surrendered, such exchange being without charge notwithstanding any provision herein to the contrary.

(iv) The Paying Agent/Registrar shall promptly notify the Authority in writing of the principal amount to be redeemed of any Series 2015 Bond as to which only a portion thereof is to be redeemed.

Section 3.4 Manner of Payment, Characteristics, Execution and Authentication. The Paying Agent/Registrar shall be the paying agent for the Series 2015 Bonds. The Series 2015 Bonds shall be payable, shall have the characteristics, shall be signed and executed, shall be sealed, and shall be authenticated, all as provided and in the manner indicated in the FORM OF SERIES 2015 BONDS attached hereto as Exhibit B. The Series 2015 Bonds initially delivered shall also have attached or affixed thereto the registration certificate of the Comptroller of Public Accounts of the State of Texas. If any person serving as an officer of the Authority, whose manual or facsimile signature shall appear on the Series 2015 Bonds, shall cease to be such officer before the authentication of the Series 2015 Bonds or before the delivery of any Series 2015 Bond, such person's manual or facsimile signature shall nevertheless be valid and sufficient for all purposes as if such person had remained in such office on the date of authentication or delivery of such Series 2015 Bond.

If the date of payment of principal of or interest on any Series 2015 Bond is not a Business Day, then the date for such payment shall be the next succeeding Business Day, and payment on such date shall have the same force and effect as if made on the original date such payment was due.

Any portion of the text of any Series 2015 Bonds may be set forth on the reverse thereof, with an appropriate reference thereto on the face of the Series 2015 Bond. The definitive Series 2015 Bonds shall be printed, lithographed, engraved, or typewritten or produced by any combination of these methods, or produced in any other manner, all as determined by the officers executing such Series 2015 Bonds as evidenced by their execution thereof, but the initial Series 2015 Bonds submitted to the Attorney General of Texas may be typewritten, photocopied, or otherwise reproduced.

Section 3.5 Ownership. The Authority, the Paying Agent/Registrar and any other person may treat the person in whose name any Series 2015 Bond is registered as the absolute owner of such Series 2015 Bond for the purpose of making payment of the principal and premium, if any, thereof, and for the further purpose of making payment of interest thereon, for the purpose of giving notice to the Owners of the Series 2015 Bonds, and for all other purposes, whether or not such Series 2015 Bond is overdue, and neither the Authority nor the Paying Agent/Registrar shall be bound by any notice or knowledge to the contrary. All payments made to the person deemed to be the Owner of any Series 2015 Bond in accordance with this Section shall be valid and effectual and shall discharge the liability of the Authority and the Paying Agent/Registrar upon such Series 2015 Bond to the extent of the sums paid.

**Section 3.6 Registration, Transfer, and Exchange.** So long as any Series 2015 Bonds remain Outstanding, the Paying Agent/Registrar shall keep the Register at its principal corporate trust office, in which, subject to such reasonable regulations as it may prescribe, the Paying Agent/Registrar shall provide for the registration and transfer of the Series 2015 Bonds in accordance with the terms of this Resolution.

Each Series 2015 Bond shall be transferable only upon presentation and surrender thereof at the principal corporate trust office of the Paying Agent/Registrar, duly endorsed for transfer, or accompanied by an assignment duly executed by the Registered Owner or his authorized representative in form satisfactory to the Paying Agent/Registrar. Upon due presentation of any Series 2015 Bond for transfer, the Paying Agent/Registrar shall authenticate and deliver in exchange therefor, within seventy-two (72) hours after such presentation, a new Series 2015 Bond or Series 2015 Bonds, registered in the name of the transferee or transferees, in authorized denominations and of the same maturity and aggregate principal amount and bearing interest at the same rate as the Series 2015 Bond or Series 2015 Bonds so presented.

Each Series 2015 Bond shall be exchangeable upon presentation and surrender thereof at the principal corporate trust office of the Paying Agent/Registrar for a Series 2015 Bond or Series 2015 Bonds of the same maturity and bearing interest at the same rate and in any authorized denomination, in an aggregate principal amount equal to the unpaid principal amount of the Series 2015 Bond or Series 2015 Bonds presented for exchange. The Paying Agent/Registrar shall be and is hereby authorized to authenticate and deliver exchange Series 2015 Bonds in accordance with the provisions of this Section. Each exchanged or replaced Series 2015 Bond delivered by the Paying Agent/Registrar in accordance with this Section shall be entitled to the benefits and security of this Resolution to the same extent as the Series 2015 Bond or Series 2015 Bonds in lieu of which such Series 2015 Bond is delivered.

The Authority or the Paying Agent/Registrar may require the Owner of any Series 2015 Bond to pay a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with the transfer or exchange of such Series 2015 Bond. Any fee or charge of the Paying Agent/Registrar for such transfer or exchange shall be paid by the Authority.

**Section 3.7 Book-Entry Only System.** The Series 2015 Bonds shall be initially issued in the form of a separate single fully registered bond for each of the maturities thereof. Upon initial issuance, the ownership of each such Series 2015 Bond shall be registered in the name of Cede & Co., as nominee of DTC, and except as provided in Section 3.9 hereof, all of the Outstanding Series 2015 Bonds shall be registered in the name of Cede & Co., as nominee of DTC. Upon delivery by DTC to the Paying Agent/Registrar of written notice to the effect that DTC has determined to substitute a new nominee in place of Cede & Co., and subject to the provision in this Resolution with respect to interest checks being mailed to the Owner at the close of business on the Record Date, the word "Cede & Co." in this Resolution shall refer to such new nominee of DTC.

With respect to Series 2015 Bonds registered in the name of Cede & Co., as nominee of DTC, the Authority and the Paying Agent/Registrar shall have no responsibility or obligation to any DTC Participant or to any person on behalf of whom such a DTC Participant holds an interest in the Series 2015 Bonds. Without limiting the immediately preceding sentence, the

Authority and the Paying Agent/Registrar shall have no responsibility or obligation with respect to (a) the accuracy of the records of DTC, Cede & Co. or any DTC Participant with respect to any ownership interest in the Series 2015 Bonds, (b) the delivery to any DTC Participant or any other person, other than a Bondholder, as shown on the Register, of any notice with respect to the Series 2015 Bonds, including any notice of redemption or (c) the payment to any DTC Participant or any other person, other than an Owner, as shown in the Register of any amount with respect to principal of Series 2015 Bonds, premium, if any, or interest on the Series 2015 Bonds.

Except as provided in Section 3.9 of this Resolution, the Authority and the Paying Agent/Registrar shall be entitled to treat and consider the person in whose name each Series 2015 Bond is registered in the Register as the absolute owner of such Series 2015 Bond for the purpose of payment of principal of, premium, if any, and interest on Series 2015 Bonds, for the purpose of giving notices of redemption and other matters with respect to such Series 2015 Bond, for the purpose of registering transfer with respect to such Series 2015 Bond, and for all other purposes whatsoever. The Paying Agent/Registrar shall pay all principal of Series 2015 Bonds, premium, if any, and interest on the Series 2015 Bonds only to or upon the order of the respective Owners, as shown in the Register as provided in this Resolution, or their respective attorneys duly authorized in writing, and all such payments shall be valid and effective to fully satisfy and discharge the Authority's obligations with respect to payment of principal of, premium, if any, and interest on the Series 2015 Bonds to the extent of the sum or sums so paid. No person other than an Owner shall receive a Series 2015 Bond certificate evidencing the obligation of the Authority to make payments of amounts due pursuant to this Resolution.

The Paying Agent/Registrar and the Authority acting by and through an Authorized Representative, may enter into a Letter of Representations with DTC to implement the book-entry only system of Series 2015 Bond registration described above and all prior acts of the Authorized Representatives in this regard are hereby ratified and confirmed.

Section 3.8 Payments and Notices to Cede & Co. Notwithstanding any other provision of this Resolution to the contrary, as long as any Series 2015 Bonds are registered in the name of Cede & Co., as nominee of DTC, all payments with respect to principal of, premium, if any, and interest on the Series 2015 Bonds, and all notices with respect to such Series 2015 Bonds shall be made and given, respectively, in the manner provided in the Letter of Representations.

Section 3.9 Successor Securities Depository: Transfer Outside Book-Entry Only System. In the event that the Authority or the Paying Agent/Registrar determines that DTC is incapable of discharging its responsibilities described herein and in the representation letter of the Authority to DTC, and that it is in the best interest of the beneficial owners of the Series 2015 Bonds that they be able to obtain certificated Series 2015 Bonds, the Authority or the Paying Agent/Registrar shall (a) appoint a successor securities depository, qualified to act as such under Section 17(a) of the Securities and Exchange Act of 1934, as amended, notify DTC of the appointment of such successor securities depository and transfer one or more separate Series 2015 Bonds to such successor securities depository or (b) notify DTC of the availability through DTC of Series 2015 Bonds and transfer one or more separate Series 2015 Bonds to DTC Participants having Series 2015 Bonds credited to their DTC account. In such event, the Series

2015 Bonds shall no longer be restricted to being registered in the Register in the name of Cede & Co., as nominee of DTC, but may be registered in the name of the successor securities depository, or its nominee, or in whatever name or names Owners transferring or exchanging Series 2015 Bonds shall designate, in accordance with the provisions of this Resolution.

Section 3.10 Cancellation. All Series 2015 Bonds paid or redeemed in accordance with this Resolution, and all Series 2015 Bonds in lieu of which exchanged Series 2015 Bonds or replacement Series 2015 Bonds are authenticated and delivered in accordance herewith, shall be canceled and destroyed upon the making of proper records regarding such payment or redemption. The Paying Agent/Registrar shall periodically furnish the Authority with certificates of destruction of such Series 2015 Bonds.

Section 3.11 Replacement Series 2015 Bonds. Upon the presentation and surrender to the Paying Agent/Registrar of a damaged or mutilated Series 2015 Bond, the Paying Agent/Registrar shall authenticate and deliver in exchange therefor a replacement Series 2015 Bond of like maturity, interest rate, and principal amount, bearing a number not contemporaneously outstanding. The Authority or the Paying Agent/Registrar may require the Owner of such Series 2015 Bond to pay a sum sufficient to cover any tax or other governmental charge that may be imposed in connection therewith and any other expenses connected therewith, including the fees and expenses of the Paying Agent/Registrar.

If any Series 2015 Bond is destroyed, lost or stolen, the Authority, pursuant to the applicable laws of the State of Texas and in the absence of notice or knowledge that such Series 2015 Bond has been acquired by a bona fide purchaser, shall execute and the Paying Agent/Registrar shall authenticate and deliver a replacement Series 2015 Bond of like maturity, interest rate, and principal amount, bearing a number not contemporaneously outstanding, provided that the Owner thereof shall have:

- (a) Furnished to the Authority and the Paying Agent/Registrar satisfactory evidence of the ownership of and the circumstances of the loss, destruction or theft of such Series 2015 Bond;
- (b) Furnished such security or indemnity as may be required by the Paying Agent/Registrar and the Authority to save them harmless;
- (c) Paid all expenses and charges in connection therewith, including, but not limited to, printing costs, legal fees, fees of the Paying Agent/Registrar and any tax or other governmental charge that may be imposed; and
- (d) Met any other reasonable requirements of the Authority and the Paying Agent/Registrar.

If, after the delivery of such replacement Series 2015 Bond, a bona fide purchaser of the original Series 2015 Bond in lieu of which such replacement Series 2015 Bond was issued presents for payment such original Series 2015 Bond, the Authority and the Paying Agent/Registrar shall be entitled to recover such replacement Series 2015 Bond from the person to whom it was delivered or any person taking therefrom, except a bona fide purchaser, and shall be entitled to recover



upon the security or indemnity provided therefor to the extent of any loss, damage, cost, or expense incurred by the Authority or the Paying Agent/Registrar in connection therewith.

If any such damaged, mutilated, destroyed, lost, or stolen Series 2015 Bond has become or is about to become due and payable, the Authority in its discretion may, instead of issuing a replacement Series 2015 Bond, authorize the Paying Agent/Registrar to pay such Series 2015 Bond.

Each replacement Series 2015 Bond delivered in accordance with this Section shall be entitled to the benefits and security of this Resolution to the same extent as the Series 2015 Bond or Series 2015 Bonds in lieu of which such replacement Series 2015 Bond is delivered.

[End of Article III]

ARTICLE IV

FORM OF SERIES 2015 BONDS

Section 4.1 Form of Series 2015 Bonds. The form of Series 2015 Bonds, Paying Agent/Registrar's Authentication Certificate, Comptroller's Registration Certificate and assignment shall be substantially as set forth in Exhibit B hereto, with such appropriate variations, omissions or insertions as are permitted or required by this Resolution and the Series 2015 Bonds may have such numbers or other identifying marks of identification (including identifying CUSIP numbers) and such legends and endorsements thereon as may, consistent herewith, be approved by the Authorized Representative. Errors or omissions in the printing of the numbers, or in the printing of the opinion or statement of insurance referred to in this Article, shall have no effect on the validity of the Series 2015 Bonds.

Section 4.2 Printing of Opinion of Co-Bond Counsel. A copy of the opinion of Andrews Kurth LLP, Houston, Texas, and Radcliffe Bobbitt Adams Polley PLLC, Houston, Texas, Co-Bond Counsel, in such form as is delivered upon payment for the Series 2015 Bonds, may be printed on the reverse side of or otherwise attached to such Series 2015 Bonds or will be delivered to DTC if the Series 2015 Bonds are held in book-entry only form; and the use of the facsimile signature of the President or Secretary of the Board to certify to the correctness of such copy is hereby authorized.

Section 4.3 Printing of Statement of Insurance. The Board hereby authorizes the printing on any Series 2015 Bonds of any statement of insurance with respect to such Series 2015 Bonds furnished by any Bond Insurer insuring such Series 2015 Bonds.

[End of Article IV]

ARTICLE V  
SECURITY AND SOURCE OF  
PAYMENT FOR THE SERIES 2015 BONDS

Section 5.1 Series 2015 Bonds Secured by Master Resolution. The Series 2015 Bonds issued hereunder are equally and ratably secured, together with the Previously Issued Senior Lien Obligations and any Senior Lien Obligations issued hereafter, by (a) the Gross Revenues as collected and received by the Authority (subject only to the prior use of Gross Revenues to pay Operation and Maintenance Expenses in accordance with the Master Resolution) and (b) any other funds and sources pledged to the payment of Senior Lien Obligations pursuant to the Master Resolution, without preference, priority or distinction on account of series or installment, or the actual time or times of the authentication, delivery or maturity of such Series 2015 Bonds so that all such Series 2015 Bonds, together with the Previously Issued Senior Lien Obligations and any Senior Lien Obligations issued hereafter, at any time outstanding hereunder shall have the same right, lien and preference under and by virtue of the Master Resolution and shall be equally and ratably secured hereby with like effect as if they were of the same series or installment and they had all been executed, authenticated and delivered simultaneously on the date hereof, whether the same, or any of them, shall actually be disposed of at such date, or whether they, or any of them, shall be disposed of at some future date.

[End of Article V]

ARTICLE VI

CONCERNING THE PAYING AGENT/REGISTRAR

Section 6.1 Acceptance. Amegy Bank National Association, Houston, Texas, is hereby appointed as the initial Paying Agent/Registrar for the Series 2015 Bonds. Such initial Paying Agent/Registrar and any successor Paying Agent/Registrar, by undertaking the performance of the duties of the Paying Agent/Registrar hereunder and under the Master Resolution, and in consideration of the payment of fees and/or deposits of money pursuant to this Resolution, shall be deemed to accept and agree to abide by the terms of this Resolution and the Master Resolution.

Section 6.2 Paying Agent/Registrar Agreement. The registration of and payment of the principal of, premium, if any, and interest on the Series 2015 Bonds when due shall be effectuated pursuant to the terms of one or more Paying Agent/Registrar Agreements to be entered into by and between the Authority and the Paying Agent/Registrar, which shall be substantially in the form presented to the Board with this Resolution, the terms and provisions of which are hereby approved, and the President of the Board and the Secretary of the Board are hereby authorized to execute and deliver such Paying Agent/Registrar Agreement on behalf of the Authority in multiple counterparts.

Section 6.3 Fiduciary Account. All money transferred to the Paying Agent/Registrar under the Master Resolution and this Resolution (except sums representing the Paying Agent/Registrar's fees) shall be held in a fiduciary account for the benefit of the Authority, shall be the property of the Authority, and shall be disbursed in accordance with the Master Resolution and this Resolution.

Section 6.4 Bonds Presented. Subject to the provisions of Section 6.5, all matured Series 2015 Bonds presented to the Paying Agent/Registrar for payment shall be paid without the necessity of further instructions from the Authority. Such Series 2015 Bonds shall be canceled as provided herein.

Section 6.5 Series 2015 Bonds Not Timely Presented. Funds held by the Paying Agent/Registrar that represent principal of and interest on the Series 2015 Bonds remaining unclaimed by any Owner after the expiration of three (3) years from the date such funds have become due and payable (a) shall be reported and disposed of by the Paying Agent/Registrar in accordance with the provisions of Title 6 of the Texas Property Code, as amended, to the extent such provisions are applicable to such funds, or (b) to the extent such provisions do not apply to the funds, such funds shall be paid by the Paying Agent/Registrar to the Authority upon receipt by the Paying Agent/Registrar of a written request therefor from the Authority.

The Paying Agent/Registrar shall have no liability to the Owners of the Series 2015 Bonds by virtue of actions taken in compliance with this Section.

Section 6.6 Paying Agent/Registrar May Own Series 2015 Bonds. The Paying Agent/Registrar in its individual or any other capacity, may become the owner or pledgee of Series 2015 Bonds with the same rights it would have if it were not the Paying Agent/Registrar.

Section 6.7 Successor Paying Agent/Registrars. The Authority covenants that at all times while any Series 2015 Bonds are Outstanding it will provide a legally qualified bank, trust company, financial institution, or other agency to act as Paying Agent/Registrar for the Series 2015 Bonds. If the Paying Agent/Registrar or its successor for any reason no longer acts as Paying Agent/Registrar hereunder, the Authority covenants that it will appoint a successor Paying Agent/Registrar to perform the duties of Paying Agent/Registrar hereunder. Any successor Paying Agent/Registrar shall be either (a) a national or state banking institution or (b) a corporation organized and doing business under the laws of the United States of America or any state, which is authorized under such laws to exercise trust powers, and shall be subject to supervision or examination by federal or state authority, authorized to perform the fiduciary duties described by the Master Resolution and authorized by law to serve as a Paying Agent/Registrar hereunder.

The Authority reserves the right to change the Paying Agent/Registrar for the Series 2015 Bonds on not less than sixty (60) days written notice to the Paying Agent/Registrar, as long as any such notice is effective not less than sixty (60) days prior to the next succeeding principal or interest payment date on the Series 2015 Bonds. Promptly upon the appointment of any successor Paying Agent/Registrar, the previous Paying Agent/Registrar shall deliver the Register or a copy thereof to the new Paying Agent/Registrar and the new Paying Agent/Registrar shall notify each Registered Owner by first-class mail, postage prepaid, of such change and of the address of the new Paying Agent/Registrar. Each Paying Agent/Registrar hereunder, by acting in that capacity, shall be deemed to have agreed to the provisions of this Resolution.

[End of Article VII]

ARTICLE VII

PROVISIONS CONCERNING SALE AND APPLICATION  
OF PROCEEDS OF SERIES 2015 BONDS

Section 7.1 Issuance, Sale and Delivery of Series 2015 Bonds: Approval of Private Placement Memorandum.

(a) The sale of the Bonds to the Texas Water Development Board (the "TWDB") at a price of the par value thereof, is hereby approved. It is hereby officially found, determined and declared that the above price and terms of sale of the Bonds are the most advantageous reasonable obtainable by the Authority.

(b) The Bonds herein authorized shall be initially issued (i) as a single fully registered bond in the total principal amount of this series with principal installments to become due and payable as provided in Section 3.2 hereof and numbered T-1, or (ii) as one bond for each year of maturity in the applicable principal amount and denomination as referenced in Section 3.2 hereof and to be numbered consecutively from T-1 and upward (hereinafter called the "Initial Bond(s)") and, in either case, the Initial Bond(s) shall be registered in the name of the initial purchaser(s) or the designee thereof. The Initial Bond(s) shall be the Bonds submitted to the Office of the Attorney General of the State of Texas for approval, certified and registered by the Office of the Comptroller of Public Accounts of the State of Texas and delivered to the TWDB. Any time after the delivery of the Bonds, the TWDB shall have the right to exchange such bonds as provided in Section 3.6 hereof without cost.

(c) The Board hereby finds and determines that all representations and covenants set forth in the Master Resolution are true and correct as of the date of this Resolution and the Board ratifies and confirms such covenants and representations as if they were set forth herein.

(d) The Board hereby approves the form and content of the Private Placement Memorandum prepared in connection with the sale of the Bonds and presented to the Board with this Resolution, together with such changes as may be approved by an Authorized Representative, and authorizes the distribution and delivery of the Private Placement Memorandum to the TWDB, as the purchaser of the Series 2015 Bonds. An Authorized Representative of the Authority is authorized to execute such Private Placement Memorandum to evidence the approval thereof.

Section 7.2 Approval, Registration, and Delivery. The President of the Board and the Secretary of the Board are hereby authorized to have control and custody of the Series 2015 Bonds and all necessary records and proceedings pertaining thereto pending their delivery to the TWDB, and the Authorized Representatives and other officers and employees of the Authority are hereby authorized, directed and instructed to make such certifications and to execute such instruments (including by printed facsimile signature) as may be necessary to accomplish the initial delivery of the Series 2015 Bonds and to assure the investigation, examination, and approval thereof by the Attorney General of Texas and the registration of the initial Series 2015

Bonds by the Comptroller of Public Accounts of the State of Texas. Upon registration of the Series 2015 Bonds, the Comptroller of Public Accounts of the State of Texas (or a deputy designated in writing to act for him) shall be requested to sign manually the registration certificate prescribed herein to be attached or affixed to each Series 2015 Bond initially delivered and the seal of the Comptroller of Public Accounts of the State of Texas shall be impressed or printed or lithographed thereon. Delivery of the Series 2015 Bonds is subject to the unqualified approving opinions as to the legality of the Series 2015 Bonds of the Attorney General of Texas and of Andrews Kurth LLP, Houston, Texas and Radcliffe Bobbitt Adams Polley PLLC, Houston, Texas, Co-Bond Counsel.

Section 7.3 Application of Proceeds of Series 2015 Bonds. The proceeds of the Series 2015 Bonds, upon the receipt thereof, shall be applied in the following manner and in the amounts directed by an Authorized Representative:

(a) Interest Account. First, there shall be credited to the "Interest Account," which account is within the Interest and Sinking Fund, the amounts, if any, received as accrued and capitalized interest on the Series 2015 Bonds to apply to the payment of interest on the Series 2015 Bonds as the same becomes due.

(b) Reserve Fund. Second, there shall be credited to the Reserve Fund an amount sufficient to satisfy the portion of the Reserve Fund Requirement required to be deposited and maintained pursuant to Section 4.4 of the Master Resolution (whether through a deposit of money, purchase of a Reserve Fund Obligation or a combination thereof).

(c) Construction Fund. Third, proceeds from the sale of the Series 2015 Bonds shall be applied to establish a Construction Fund. Proceeds of the Series 2015 Bonds deposited to the Construction Fund shall be used for the purposes set forth in Section 3.1 of this Resolution. Any proceeds of the Series 2015 Bonds remaining after making all such deposits and payments shall be deposited into the Interest and Sinking Fund.

Notwithstanding the above and foregoing, immediately following the delivery of the Series 2015 Bonds and prior to the deposit of the proceeds from the sale of such Series 2015 Bonds as described above, such proceeds shall be held in trust and in escrow pursuant to the written escrow agreement described below pending written authorization to release said proceeds.

A "Special Escrow Deposit Agreement" by and between the Authority and Amegy Bank National Association, attached hereto as Exhibit C and incorporated herein by reference as a part of this Resolution for all purposes, is hereby approved as to form and content, and the President and Secretary of the Board are hereby authorized and directed to execute such Agreement in substantially the same form and content herein approved.

Section 7.4 Bond Insurance Policy. A statement relating to municipal bond insurance, if applicable, provided by a Bond Insurer may be printed on or attached to each Series 2015 Bonds.

Section 7.5 Surety Policies. In order to provide for the deposit of the Reserve Fund Requirement in the Reserve Fund in connection with the issuance of the Series 2015 Bonds, an Authorized Representative is authorized to solicit bids for the purchase of one or more Reserve Fund Obligations for such Fund and, to the extent that the purchase of one or more Reserve Fund Obligations is determined by an Authorized Representative to provide an economic benefit, negotiate the purchase of such Reserve Fund Obligation(s) from one or more Credit Agreement Providers. An Authorized Representative is further authorized to negotiate the terms of any related reimbursement or similar agreement and to execute and deliver such agreement(s); provided, however; that any interest due on any repayment obligation of the Authority under any of the foregoing documents by reason of payments made under a Reserve Fund Obligation may not exceed the Highest Lawful Rate of interest which may be paid by the Authority at the time of the delivery of the Reserve Fund Obligation.

Section 7.6 Related Matters. To ensure that the Authority shall satisfy in a timely manner all of its obligations under the Master Resolution, this Resolution, and any Credit Agreements, the Authorized Representatives and all other appropriate officers and agents of the Authority are hereby authorized and directed to take any action determined by an Authorized Representative to be reasonably necessary to provide for the issuance and delivery of the Series 2015 Bonds, including without limitation, executing by manual or facsimile signature and delivering on behalf of the Authority all certificates, consents, receipts, requests, notices, agreements, and other documents as may be reasonably necessary to satisfy the Authority's obligations under the Master Resolution, this Resolution, and any Credit Agreements, and paying costs incurred in connection with the issuance of the Series 2015 Bonds, and to direct the transfer and application of funds of the Authority consistent with the provisions of the Master Resolution and this Resolution. If requested by the Attorney General of Texas or his representatives, an Authorized Representative or Bond Counsel may authorize such ministerial changes in the written text of this Resolution as are necessary to obtain the Attorney General's approval and as he determines are consistent with the intent and purposes of this Resolution.

[End of Article VIII]



ARTICLE VIII

TAX EXEMPTION

Section 8.1 Covenants to Maintain Tax Exemption.

(a) Definitions. When used in this Section, the following terms have the following meanings:

(i) "Code" means the Internal Revenue Code of 1986, as amended by all legislation, if any, effective on or before the Issue Date.

(ii) "Computation Date" has the meaning stated in section 1.148-1(b) of the Regulations.

(iii) "Gross Proceeds" has the meaning stated in section 1.148-1(b) of the Regulations.

(iv) "Investment" has the meaning stated in section 1.148-1(b) of the Regulations.

(v) "Issue Date" for the Series 2015 Bonds or other obligations of the Authority is the respective date on which such obligations of the Authority are first delivered against payment therefor.

(vi) "Nonpurpose Investment" has the meaning stated in section 1.148-1(b) of the Regulations.

(vii) "Proceeds" has the meaning stated in section 1.148-1(b) of the Regulations.

(viii) "Rebate Amount" has the meaning stated in section 1.148-3 of the Regulations.

(ix) "Regulations" means the temporary or final Income Tax Regulations applicable to the Series 2015 Bonds issued pursuant to sections 141 through 150 of the Code. Any reference to a section of the Regulations shall also refer to any successor provision to such section hereafter promulgated by the Internal Revenue Service pursuant to sections 141 through 150 of the Code and applicable to the Series 2015 Bonds.

(x) "Yield of"

(A) any Investment shall be computed in accordance with section 1.148-5 of the Regulations, and

(B) the Series 2015 Bonds shall be computed in accordance with section 1.148-4 of the Regulations.

(b) Not to Cause Interest to Become Taxable. The Authority shall not use, permit the use of or omit to use Gross Proceeds or any other amounts (or any property the acquisition, construction or improvement of which is to be financed directly or indirectly with Gross Proceeds) in a manner which, if made or omitted, respectively, would cause the interest on any Series 2015 Bonds to become includable in the gross income, as defined in section 61 of the Code, of the owner thereof for federal income tax purposes. Without limiting the generality of the foregoing, unless and until the Authority shall have received a written opinion of counsel nationally recognized in the field of municipal bond law to the effect that failure to comply with such covenant will not adversely affect the exemption from federal income tax of the interest on any Series 2015 Bond, the Authority shall comply with each of the specific covenants in this Section.

(c) No Private Use or Private Payments. Except as permitted by section 141 of the Code and the regulations and rulings thereunder, the Authority shall, at all times prior to the last stated maturity of the Series 2015 Bonds,

(i) exclusively own, operate, and possess all property the acquisition, construction, or improvement of which is to be financed or refinanced directly or indirectly with Gross Proceeds of the Series 2015 Bonds and not use or permit the use of such Gross Proceeds or any property acquired, constructed, or improved with such Gross Proceeds in any activity carried on by any person or entity other than a state or local government, unless such use is solely as a member of the general public; or

(ii) not directly or indirectly impose or accept any charge or other payment for use of Gross Proceeds of the Series 2015 Bonds or any property the acquisition, construction or improvement of which is to be financed or refinanced directly or indirectly with such Gross Proceeds other than taxes of general application and interest earned on investments acquired with such Gross Proceeds pending application for their intended purposes.

(d) No Private Loan. Except to the extent permitted by section 141 of the Code and the regulations and rulings thereunder, the Authority shall not use Gross Proceeds of the Series 2015 Bonds to make or finance loans to any person or entity other than a state or local government. For purposes of the foregoing covenant, Gross Proceeds are considered to be "loaned" to a person or entity if (1) property acquired, constructed or improved with Gross Proceeds is sold or leased to such person or entity in a transaction which creates a debt for federal income tax purposes, (2) capacity in or service from such property is committed to such person or entity under a take-or-pay, output, or similar contract or arrangement, or (3) indirect benefits, or burdens and benefits of ownership, of such Gross Proceeds or such property are otherwise transferred in a transaction which is the economic equivalent of a loan.

(e) Not to Invest at Higher Yield. Except to the extent permitted by section 148 of the Code and the regulations and rulings thereunder, the Authority shall not, at any time prior to the earlier of the final stated maturity or final payment of the Series 2015 Bonds, directly or indirectly invest Gross Proceeds of such Series 2015

Bonds in any Investment (or use such Gross Proceeds to replace money so invested), if as a result of such investment the Yield of all Investments allocated to such Gross Proceeds whether then held or previously disposed of, exceeds the Yield on the Series 2015 Bonds.

(f) Not Federally Guaranteed. Except to the extent permitted by section 149(b) of the Code and the regulations and rulings thereunder, the Authority shall not take or omit to take any action which would cause the Series 2015 Bonds to be federally guaranteed within the meaning of section 149(b) of the Code and the regulations and rulings thereunder.

(g) Information Report. The Authority shall timely file with the Secretary of the Treasury the information required by section 149(e) of the Code with respect to the Series 2015 Bonds on such forms and in such place as such Secretary may prescribe.

(h) Payment of Rebate Amount. Except to the extent otherwise provided in section 148(f) of the Code and the regulations and rulings thereunder, the Authority shall:

(i) account for all Gross Proceeds (including all receipts, expenditures and investments thereof) on its books of account separately and apart from all other funds (and receipts, expenditures and investments thereof) and shall retain all records of such accounting for at least six years after the final Computation Date. The Authority may, however, to the extent permitted by law, commingle Gross Proceeds of the Series 2015 Bonds with other money of the Authority, provided that the Authority separately accounts for each receipt and expenditure of such Gross Proceeds and the obligations acquired therewith.

(ii) calculate the Rebate Amount with respect to the Series 2015 Bonds, not less frequently than each Computation Date, in accordance with rules set forth in section 148(f) of the Code, section 1.148-3 of the Regulations, and the rulings thereunder. The Authority shall maintain a copy of such calculations for at least six years after the final Computation Date.

(iii) as additional consideration for the purchase of the Series 2015 Bonds by the initial purchaser thereof and the loan of the money represented thereby, and in order to induce such purchase by measures designed to ensure the excludability of the interest thereon from the gross income of the owners thereof for federal income tax purposes, pay to the United States the amount described in paragraph (2) above at the times, in the installments, to the place, in the manner and accompanied by such forms or other information as is or may be required by section 148(f) of the Code and the regulations and rulings thereunder, and

(iv) exercise reasonable diligence to assure that no errors are made in the calculations and payments required by paragraphs (2) and (3), and, if such error is made, to discover and promptly to correct such error within a reasonable amount of time thereafter (and in all events within one hundred eighty (180) days after discovery of the error), including payment to the United States of any

additional Rebate Amount owed to it, interest thereon and any penalty required by the Regulations.

(i) Not to Divert Arbitrage Profits. Except to the extent permitted by section 148 of the Code and the regulations and rulings thereunder, the Authority shall not, at any time prior to the earlier of the final stated maturity or final payment of the Series 2015 Bonds, enter into any transaction that reduces the amount required to be paid to the United States pursuant to Subsection (h) of this Section because such transaction results in a smaller profit or a larger loss than would have resulted if the transaction had been at arm's length and had the Yield of the Series 2015 Bonds, not been relevant to either party.

(j) Not Hedge Bonds. The Authority did not invest more than 50 percent of the Proceeds of the original bonds refunded by the Series 2015 Bonds in Nonpurpose Investments having a guaranteed yield for four years or more. On the Issue Date of each series of the original bonds refunded by the Series 2015 Bonds, the Authority reasonably expected that at least 85 percent of the spendable proceeds of such bonds would be used to carry out the governmental purpose of such bonds within three years after the respective Issue Date of such bonds.

[End of Article VIII]

ARTICLE IX

CONTINUING DISCLOSURE UNDERTAKING

Section 9.1 Annual Reports. The Authority shall provide annually to the MSRB, in an electronic format as prescribed by the MSRB, within six months after the end of each fiscal year, financial information and operating data with respect to the Authority of the general type described in Exhibit D hereto. Any financial statements so to be provided shall be (1) prepared in accordance with such accounting principles as the Authority may be required to employ from time to time pursuant to State law or regulation and (2) audited, if the Authority commissions an audit of such statements and the audit is completed within the period during which they must be provided. If the audit of such financial statements is not complete within 12 months after any such fiscal year end, then the Authority shall file unaudited financial statements within such 12-month period and audited financial statements for the applicable fiscal year, when and if the audit report on such statements becomes available.

If the Authority changes its fiscal year, it will notify the MSRB of the change (and of the date of the new fiscal year end) prior to the next date by which the Authority otherwise would be required to provide financial information and operating data pursuant to this Section.

The financial information and operating data to be provided pursuant to this Section may be set forth in full in one or more documents or may be included by specific reference to any document that is available to the public on the MSRB's internet website or filed with the SEC.

Section 9.2 Event Notices. The Authority shall notify the MSRB, in a timely manner (not in excess of ten (10) business days after the occurrence of the event), of any of the following events with respect to the Series 2015 Bonds:

- (a) Principal and interest payment delinquencies;
- (b) Non-payment related defaults, if material;
- (c) Unscheduled draws on debt service reserves reflecting financial difficulties;
- (d) Unscheduled draws on credit enhancements reflecting financial difficulties;
- (e) Substitution of credit or liquidity providers, or their failure to perform;
- (f) Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TTB) or other material notices or determinations with respect to the tax status of the Series 2015 Bonds, or other material events affecting the tax status of the Series 2015 Bonds;
- (g) Modifications to rights of Bondholders, if material;

- (h) Bond calls, if material, and tender offers;
- (i) Defeasances;
- (j) Release, substitution, or sale of property securing repayment of the Series 2015 Bonds, if material;
- (k) Rating changes;

(l) Bankruptcy, insolvency, receivership, or similar event of the Authority;

(m) The consummation of a merger, consolidation, or acquisition involving the Authority or the sale of all or substantially all of the assets of the Authority, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action, or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and

(n) The appointment of a successor or additional trustee or the change of name of a trustee, if material.

As used in clause (l) above, the phrase “bankruptcy, insolvency, receivership or similar event” means the appointment of a receiver, fiscal agent or similar officer for the Authority in a proceeding under the United States Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets of the Authority, or if jurisdiction has been assumed by leaving the Board and official or officers of the Authority in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the Authority.

The Authority shall also notify the MSRB, in an electronic format as prescribed by the MSRB, in a timely manner, of any failure by the Authority to provide financial information or operating data in accordance with this Section by the time required by this Section.

All documents provided to the MSRB pursuant to this Section shall be accompanied by identifying information as prescribed by the MSRB.

**Section 9.3 Limitations, Disclaimers, and Amendments.** The Authority shall be obligated to observe and perform the covenants specified in this Article for so long as, but only for so long as, the Authority remains an “obligated person” with respect to the Series 2015 Bonds within the meaning of the Rule, except that the Authority in any event will give the notice required by Section 9.2 of any Series 2015 Bond calls and defeasance that cause the Authority to be no longer such an “obligated person.”

The provisions of this Article are for the sole benefit of the Owners and beneficial owners of the Series 2015 Bonds, and nothing in this Article, express or implied, shall give any benefit or any legal or equitable right, remedy, or claim hereunder to any other person. The Authority undertakes to provide only the financial information, operating data, financial statements, and

notices which it has expressly agreed to provide pursuant to this Article and does not hereby undertake to provide any other information that may be relevant or material to a complete presentation of the Authority's financial results, condition, or prospects or hereby undertake to update any information provided in accordance with this Article or otherwise, except as expressly provided herein. The Authority does not make any representation or warranty concerning such information or its usefulness to a decision to invest in or sell Series 2015 Bonds at any future date.

UNDER NO CIRCUMSTANCES SHALL THE AUTHORITY BE LIABLE TO THE OWNER OR BENEFICIAL OWNER OF ANY SERIES 2015 BOND OR ANY OTHER PERSON, IN CONTRACT OR TORT, FOR DAMAGES RESULTING IN WHOLE OR IN PART FROM ANY BREACH BY THE AUTHORITY, WHETHER NEGLIGENT OR WITHOUT FAULT ON ITS PART, OF ANY COVENANT SPECIFIED IN THIS ARTICLE, BUT EVERY RIGHT AND REMEDY OF ANY SUCH PERSON, IN CONTRACT OR TORT, FOR OR ON ACCOUNT OF ANY SUCH BREACH SHALL BE LIMITED TO AN ACTION FOR MANDAMUS OR SPECIFIC PERFORMANCE.

No default by the Authority in observing or performing its obligations under this Article shall constitute a breach of or default under this Resolution for purposes of any other provision of this Resolution.

Nothing in this Article is intended or shall act to disclaim, waive or otherwise limit the duties of the Authority under federal and state securities laws.

The provisions of this Article may be amended by the Authority from time to time to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature, status or type of operations of the Authority, but only if (1) the provisions of this Article, as so amended, would have permitted an underwriter to purchase or sell Series 2015 Bonds in the primary offering of the Series 2015 Bonds in compliance with the Rule, taking into account any amendments or interpretations of the Rule to the date of such amendment, as well as such changed circumstances, and (2) either (a) the Owners of a majority in aggregate principal amount (or any greater amount required by any other provision of this Resolution that authorizes such an amendment) of the Outstanding Series 2015 Bonds consent to such amendment or (b) a person or entity that is unaffiliated with the Authority (such as nationally recognized bond counsel) determines that such amendment will not materially impair the interests of the Owners and beneficial owners of the Series 2015 Bonds. If the Authority so amends the provisions of this Article, it shall include with any amended financial information or operating data next provided in accordance with Section 9.1 an explanation, in narrative form, of the reasons for the amendment and of the impact of any change in the type of financial information or operating data so provided. The Authority may also amend or repeal the provisions of this Article if the SEC amends or repeals the applicable provisions of the Rule or a court of final jurisdiction enters judgment that such provisions of the Rule are invalid, and the Authority also may amend the provisions of this Article in its discretion in any other manner or circumstance, but in either case only if and to the extent that the provisions of this sentence would not prevent an underwriter from lawfully purchasing or selling Series 2015 Bonds in the primary offering of the Series 2015 Bonds.

[End of Article IX]



ARTICLE X

MISCELLANEOUS

Section 10.1 Compliance with the Texas Water Development Board's Rules and Regulations. The Authority will comply with all of the requirements contained in the resolution or resolutions adopted by the TWDB with respect to the issuance of the Series 2015 Bonds. In addition, in compliance with the TWDB's State Water Implementation Revenue Fund for Texas ("SWIRFT") Loan Program Rules, the Authority agrees and covenants:

- (a) Any loan proceeds from the Series 2015 Bonds that are determined to be surplus proceeds remaining after completion of one or more of the projects described in Section 3.1 hereof shall be used for the following purposes as approved by the Executive Administrator: (1) deposit into the Interest and Sinking Fund or other debt service account for the payment of interest or principal on the Series 2015 Bonds owned by the TWDB; or (2) eligible costs for a project as authorized by the Executive Administrator.
- (b) The Authority shall indemnify, hold harmless and protect the TWDB from any and all claims, causes of action or damages to the person or property of third parties arising from the sampling, analysis, transport, storage, treatment and disposition of any contaminated sewage sludge, contaminated sediments and/or contaminated media that may be generated by the Authority, its contractors, consultants, agents, officials and employees as a result of activities relating to the project, to the extent permitted by law.
- (c) The Authority shall report to the TWDB the amounts of project funds, if any, that were used to compensate historically underutilized businesses that worked on the project, in accordance with 31 TAC § 363.1312.
- (d) The TWDB will purchase the Series 2015 Bonds, acting through the TWDB's designated trustee, and the Series 2015 Bonds shall be registered in the name of Cede & Co. and closed in book-entry form in accordance with 31 TAC Section 363.42(c)(1).
- (e) Neither the Authority nor a related party thereto will acquire any of the TWDB's Source Series Bonds in an amount related to the amount of the Series 2015 Bonds to be acquired from the Authority by the TWDB.
- (f) Payments of principal and interest on the Series 2015 Bonds will be made to the TWDB via wire transfer at no cost to the TWDB.

Section 10.2 Further Proceeding. To satisfy in a timely manner all of the Authority's obligations under this Resolution, the President or the Vice President and Secretary of the Board and all other appropriate officers, agents and representatives of the Authority are hereby authorized and directed to take all other actions that are reasonably necessary to provide for the issuance of the Series 2015 Bonds including, without limitation, executing and delivering on behalf of the Authority all certificates, consents, receipts, requests and other documents as may be reasonably necessary to satisfy the Authority's obligations under this Resolution and to direct

the transfer and application of funds of the Authority consistent with the provisions of this Resolution.

Section 10.3 Legal Holidays. In any case where the date of maturity of interest on or principal of the Series 2015 Bonds or the date fixed for redemption of any Series 2015 Bonds shall be in the Authority a legal holiday or a day on which the Paying Agent/Paying Agent/Registrar for the Series 2015 Bonds is authorized by law to close, then payment of interest or principal need not be made on such date but may be made on the next succeeding day not in the Authority a legal holiday or a day on which such Paying Agent/Paying Agent/Registrar is authorized by law to close with the same force and effect as if made on the date of maturity or the date fixed for redemption and no interest shall accrue for the period from the date of maturity or redemption to the date of actual payment.

Section 10.4 Unavailability of Authorized Publication. If, because of the temporary or permanent suspension of any newspaper, journal or other publication, or, for any reason, publication of notice cannot be made meeting any requirements herein established, any notice required to be published by the provisions of this Resolution shall be given in such other manner and at such time or times as in the judgment of the Authority or of the Paying Agent/Paying Agent/Registrar (or paying agent) for the Series 2015 Bonds shall most effectively approximate such required publication and the giving of such notice in such manner shall for all purposes of this Resolution be deemed to be in compliance with the requirements for publication thereof.


Section 10.5 No Recourse Against Authority Officials. No recourse shall be had for the payment of principal of or interest on any Series 2015 Bonds or for any claim based thereon or on this Resolution against any official of the Authority or any person executing any Series 2015 Bonds.

Section 10.6 Severability. If any Section, paragraph, clause or provision of this Resolution shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such Section, paragraph, clause or provision shall not affect any of the remaining provisions of this Resolution.


Section 10.7 Open Meeting. It is hereby found, determined and declared that a sufficient written notice of the date, hour, place and subject of the meeting of the Board at which this Resolution was adopted was posted at a place convenient and readily accessible at all times to the general public at the offices of the Authority for the time required by law preceding this meeting, as required by the Open Meetings Act, Chapter 551, Texas Government Code, as amended, and that this meeting has been open to the public as required by law at all times during which this Resolution and the subject matter thereof has been discussed, considered and formally acted upon. The Board further ratifies, approves and confirms such written notice and the contents and posting thereof.

[End of Article X]

PASSED AND APPROVED THE 2nd day of November, 2015.

  
\_\_\_\_\_  
President, Board of Directors  
North Harris County Regional Water Authority

ATTEST:

  
\_\_\_\_\_  
Secretary, Board of Directors  
North Harris County Regional Water Authority  
(AUTHORITARIAN)

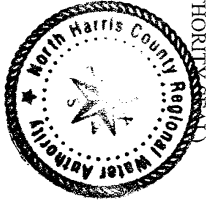


Exhibit A – Definitions  
Exhibit B – Form of Series 2015 Bond  
Exhibit C – Form of Special Escrow Deposit Agreement

**EXHIBIT A**  
**DEFINITIONS**

## DEFINITIONS

“*Authority*” shall mean the North Harris County Regional Water Authority (and, where appropriate, the Board thereof) and any successor to the Authority.

“*Authorized Denominations*” shall mean \$5,000 or any integral multiple thereof.

“*Authorized Investment*” means any and all of the authorized investments described in the Public Funds Investment Act, Chapter 2256, Texas Government Code, as amended, provided that such investments are, at the time made, included in and authorized by the Authority’s official investment policy approved from time to time by the Board.

“*Authorized Representative*” shall mean the General Manager or the Financial Assistant of the Authority, the President, Vice President or Treasurer of the Board, or any officer or other employee of the Authority at the time designated to act on behalf of the Board by written certificate of the Secretary of the Board or the General Manager and containing such officer’s or employee’s specimen signature.

“*Board*” means the Board of Directors of the North Harris County Regional Water Authority.

“*Bond Insurer*” means any insurance company insuring payment of municipal bonds and other similar obligations if such bond or obligations so insured by it are eligible for a rating by a Rating Agency, at the time of the delivery of a municipal bond insurance policy, in one of its two highest rating categories.

“*Business Day*” means any day other than (a) a Saturday or Sunday, (b) a day on which banking institutions in the city or cities in which the designated office of any Fiscal Agent or Credit Agreement Provider are located and authorized by law or executive order to close, (c) any day on which the Federal Reserve Bank of Dallas is closed, (d) a day on which the a securities depository for a Series or Installment of Bonds is closed or (e) a day on with the New York Stock Exchange, or any successor securities exchange, is closed.

“*Code*” shall mean the Internal Revenue Code of 1986, as amended.

“*Dated Date*” means December 1, 2015.

“*Dollar*” or “\$” means lawful currency of the United States of America.

“*DTC*” shall mean The Depository Trust Company (a limited purpose trust company), New York, New York, until any successor depository shall have become such pursuant to the applicable provisions of this Resolution and, thereafter, “DTC” shall mean the successor depository. Any depository shall be a securities depository that is a clearing agency under federal law operating and maintaining, with its participants or otherwise, a book entry system to record ownership of beneficial interests in Series 2015 Bonds, and to effect transfer of Series 2015 Bonds, in book entry form.

*"Highest Lawful Rate"* shall mean the maximum net effective interest rate permitted by law to be paid on obligations issued or incurred by the Authority in the exercise of its borrowing powers (prescribed by Chapter 1204, Texas Government Code, as amended, or any successor provision).

*"Interest Payment Date"* means the date or dates upon which interest on the Series 2015 Bonds is scheduled to be paid until their respective dates of maturity or prior redemption, such dates being June 15 and December 15 of each year, commencing June 15, 2016.

*"Letter of Representations"* means the Blanket Letter of Representations between the Authority and DTC, or another such Letter of Representations if determined necessary by an Authorized Representative, each as amended or supplemented from time to time.

*"Master Resolution"* shall mean the "Master Resolution Establishing a Financing Program for the North Harris County Regional Water Authority; Approving and Authorizing North Harris County Regional Water Authority Senior Lien Revenue Bonds to be Issued in Various Series and to be Sold and Delivered in Various Forms; Providing for Credit Agreements; Making Certain Covenants and Agreements in Connection Therewith; and Resolving Other Matters Incident and Related Thereto", adopted by the Board on May 19, 2003, as the same may be amended or supplemented from time to time as permitted thereby.

*"MSRB"* means the Municipal Securities Rulemaking Board.

*"Owner"* or *"Registered Owner"* when used with respect to any Series 2015 Bond, shall mean the person or entity in whose name such Series 2015 Bond is registered in the Register. Any reference to a particular percentage or proportion of the Owners of the Series 2015 Bonds shall mean the Owners at a particular time of the specified percentage or proportion in aggregate principal amount of all Series 2015 Bonds then Outstanding.

*"Paying Agent/Registrar"* shall mean Amegy Bank National Association, Houston, Texas, and its successors in that capacity.

*"Previously Issued Senior Lien Obligations"* means the Authority's previously issued and outstanding Senior Lien Obligations. As of the date of adoption of this Resolution, the following Previously Issued Senior Lien Obligations are outstanding:

- North Harris County Regional Water Authority Senior Lien Revenue Bonds, Series 2008;
- North Harris County Regional Water Authority Senior Lien Revenue Refunding Bonds, Series 2013; and
- North Harris County Regional Water Authority Senior Lien Revenue Refunding Bonds, Series 2014.

*"Rating Agency"* means Moody's Investors Service and Standard & Poor's Rating Services, a Standard & Poor's Financial Services LLC business, and their respective successors.

“*Register*” shall mean the books of registration kept by the Paying Agent/Paying Agent/Registrar in which are maintained the names and addresses of and the principal amounts registered to each Owner of Series 2015 Bonds.

“*Resolution*” shall mean this Sixth Supplemental Resolution and all amendments and supplements hereto.

“*Rule*” means SEC Rule 15c2-12, as amended from time to time.

“*SEC*” means the United States Securities and Exchange Commission.

“*Series 2015 Bonds*” shall mean the North Harris County Regional Water Authority Senior Lien Revenue Bonds, Series 2015.

“*Source Series Bonds*” means TWDB’s bonds that are issued to provide financing for the loan from TWDB to the Authority.

“*TWDB*” means the Texas Water Development Board.

**EXHIBIT B**

**FORM OF SERIES 2015 BOND**



FORM OF SERIES 2015 BOND  
UNITED STATES OF AMERICA  
STATE OF TEXAS

NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
SENIOR LIEN REVENUE BOND  
SERIES 2015

NUMBER \_\_\_\_\_ DENOMINATION  
<sup>1</sup>R- \_\_\_\_\_ \$ \_\_\_\_\_  
REGISTERED REGISTERED

<sup>2</sup>INTEREST RATE: \_\_\_\_\_ DATED DATE: \_\_\_\_\_ <sup>2</sup>MATURITY DATE: \_\_\_\_\_ <sup>2</sup>CUSIP NO.: \_\_\_\_\_  
% December 1, 2015 \_\_\_\_\_

Registered Owner: \_\_\_\_\_  
Principal Amount: \_\_\_\_\_ DOLLARS

<sup>3</sup>NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY, a governmental agency and a body politic and corporate and a defined district created under the Constitution and laws of the State of Texas (herein the "Authority"), for value received, hereby promises to pay, to the Registered Owner identified above or registered assigns, solely from certain pledged revenues and funds as hereinafter specified and from no other source, in each of the years, in the Maturity Amounts and at the interest rates set forth in the below schedule, upon presentation and surrender of this bond at the principal corporate trust office of the "Paying Agent/Registrar," initially Amegy Bank National Association, Houston, Texas, in any coin or currency of the United States of America which on the date of payment of such principal is legal tender for the payment of debts due the United States of America, the

<sup>1</sup> The Initial Bond shall be numbered T-1.

<sup>2</sup> Omitted from the initial Bond.

<sup>3</sup> The first sentence of the Initial Bond shall read as follows:  
NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY, a governmental agency and a body politic and corporate and a defined district created under the Constitution and laws of the State of Texas (herein the "Authority"), for value received, hereby promises to pay, to the Registered Owner identified above or registered assigns, solely from certain pledged revenues and funds as hereinafter specified and from no other source, in each of the years, in the Maturity Amounts and at the interest rates set forth in the below schedule, upon presentation and surrender of this bond at the principal corporate trust office of the "Paying Agent/Registrar," initially Amegy Bank National Association, Houston, Texas, in any coin or currency of the United States of America which on the date of payment of such principal is legal tender for the payment of debts due the United States of America: [Insert information regarding years of maturity, Maturity Amounts and yield], and to pay, solely from such pledged revenues and funds, interest thereon at the Interest Rate shown above, calculated on the basis of a 360-day year composed of twelve 30-day months, from the later of December 11, 2015 or the most recent interest payment date to which interest has been paid or duly provided for.

Principal Amount identified above (or so much as shall not have been paid upon prior redemption), and to pay, solely from such pledged revenues and funds, interest thereon at the Interest Rate shown above, calculated on the basis of a 360-day year composed of twelve 30-day months, from the later of December 11, 2015 or the most recent interest payment date to which interest has been paid or duly provided for. Interest on this bond is payable on each June 15 and December 15, beginning June 15, 2016, until the maturity or redemption date of this bond or until the Authority's obligation with respect to this bond has been satisfied. Interest on this bond shall be payable by check mailed by the Paying Agent/Registrar to the Registered Owner of record as of the last day of the month next preceding the interest payment date as shown on the books of registration kept by the Paying Agent/Registrar.

THIS BOND IS ONE OF A DULY AUTHORIZED SERIES OF BONDS (herein the "Series 2015 Bonds") originally issued in the aggregate principal amount of \$80,435,000 pursuant to a Master Resolution (the "Master Resolution"), as supplemented by a Sixth Supplemental Resolution (the "Sixth Supplemental Resolution" and, together with the Master Resolution, the "Resolution"), both adopted by the Board of Directors of the Authority for the purpose of (a) financing the design, acquisition, and construction of the System, including: (i) the Authority's proportionate share of the costs to expand the City of Houston's Northeast Water Purification Plant; (ii) a shared transmission pipeline (Second Source Transmission Line Phase D); (iii) the initial phase of the Authority's 2025 Transmission System (Second Source Transmission Line Phase II); and (iv) the initial phase of the Authority's 2025 Distribution System; (b) funding a debt service reserve fund or a Reserve Fund Obligation; (c) funding capitalized interest; and (d) paying costs of issuance of the Series 2015 Bonds, under and pursuant to the authority of the Constitution and laws of the State of Texas, including Article XVI, Section 59, Texas Constitution, Chapter 1029, Acts of the 76th Texas Legislature 1999 (Regular Session), as amended by Chapter 1296, Acts of the 77th Texas Legislature 2001 (Regular Session), and all other applicable law.

THIS BOND, TOGETHER WITH THE PREVIOUSLY ISSUED SENIOR LIEN OBLIGATIONS and any Senior Lien Obligations issued in the future, are special obligations of the Authority that are equally and ratably payable from and secured by a first lien on the "Gross Revenues" as collected and received by the Authority from the imposition and collection of certain fees within the territory of the Authority and the collection of certain revenues from the operation and ownership of the Authority's System (as defined and provided in the Master Resolution), which Gross Revenues are required to be set aside for and pledged to the payment of the Series 2015 Bonds and all additional obligations issued on a parity therewith (subject only to the prior use of such Gross Revenues to pay Operation and Maintenance Expenses in accordance with the Master Resolution). The Master Resolution requires that Gross Revenues be deposited in certain funds established therein, including funds maintained for the payment of the Series 2015 Bonds and all additional obligations issued on a parity therewith, as more fully described therein. The Gross Revenues remaining after payment of Operation and Maintenance Expenses are also referred to in the Resolution as the "Net Revenues". This bond and the series of which it is a part, together with the interest thereon, are payable solely from such Net Revenues and do not constitute an indebtedness or general obligation of the Authority.

THE SERIES 2015 BONDS MATURING ON AND AFTER December 15, 2026 are subject to redemption at the option of the Authority prior to their scheduled maturity on

December 15, 2025, or any date thereafter, in inverse order of maturity, in whole or in part with funds derived from any available and lawful source (but if less than all the Series 2015 Bonds of a single maturity are called for redemption, those bonds called shall be selected by lot or other customary random method by the Paying Agent/Registrar), at a price of par plus accrued interest to the date fixed for redemption.

**SERIES 2015 BONDS MAY BE REDEEMED IN PART** only in integral multiples of \$5,000. If a Series 2015 Bond subject to redemption is in a denomination larger than \$5,000, a portion of such Series 2015 Bond may be redeemed, but only in integral multiples of \$5,000. In selecting portions of Series 2015 Bonds for redemption, the Paying Agent/Registrar shall treat each Series 2015 Bond as representing that number of Series 2015 Bonds of \$5,000 denomination which is obtained by dividing the principal amount of such Series 2015 Bond by \$5,000. Upon surrender of any Series 2015 Bond for redemption in part, the Paying Agent/Registrar, in accordance with the provisions of the Resolution, shall authenticate and deliver in exchange therefore a Series 2015 Bond or Series 2015 Bonds of like maturity and interest rate in an aggregate principal amount equal to the unredeemed portion of the Series 2015 Bond so surrendered.

**NOTICE OF ANY REDEMPTION** identifying the Series 2015 Bonds or portions thereof to be redeemed shall be sent by United States mail, first-class, postage prepaid, to the Registered Owners thereof at their addresses as shown on the books of registration kept by the Paying Agent/Registrar not less than thirty (30) days before the date fixed for such redemption. By the date fixed for redemption, due provision shall be made with the Paying Agent/Registrar for the payment of the redemption price of the Series 2015 Bonds called for redemption. If such notice of redemption is given, and if due provision for such payment is made, all as provided above, the Series 2015 Bonds which are to be so redeemed thereby automatically shall be redeemed prior to their scheduled maturities, they shall not bear interest after the date fixed for redemption, and they shall not be regarded as being outstanding except for the purpose of being paid by the Paying Agent/Registrar with the funds so provided for such payment.

**WITH RESPECT TO ANY OPTIONAL REDEMPTION** of the Bonds, unless all prerequisites to such redemption required by the Resolution have been met, including moneys sufficient to pay the principal of and premium, if any, and interest on the Bonds to be redeemed having been received by the Paying Agent/Registrar prior to the giving of notice of such redemption, such notice shall state that said redemption may, at the option of the Authority, be conditional upon the satisfaction of all prerequisites and receipt of such moneys by the Paying Agent/Registrar on or prior to the date fixed for such redemption, and if such prerequisites to the redemption and sufficient moneys are not received, such notice shall be of no force and effect, the Authority shall not redeem such Bonds and the Paying Agent/Registrar shall give notice, in the manner in which the notice of redemption was given, to the effect that the Bonds have not been redeemed.

**THE AUTHORITY HAS RESERVED THE RIGHT** to issue additional revenue bonds and other obligations, subject to the restrictions contained in the Master Resolution, which bonds may be secured by a lien on a parity with, or subordinate and inferior to, the lien on the Net Revenues securing this bond and the series of which it is a part.

THE SERIES 2015 BONDS ARE TRANSFERABLE only upon presentation and surrender thereof at the principal corporate trust office of the Paying Agent/Registrar, duly endorsed for transfer or accompanied by an assignment duly executed by the registered owner or his authorized representative, subject to the terms and conditions of the Sixth Supplemental Resolution.

THE SERIES 2015 BONDS ARE EXCHANGEABLE at the principal corporate trust office of the Paying Agent/Registrar for Series 2015 Bonds in the principal amount of \$5,000 or any integral multiple thereof, subject to the terms and conditions of the Sixth Supplemental Resolution.

THE PAYING AGENT/REGISTRAR IS NOT REQUIRED to accept for transfer or exchange any Series 2015 Bond called for redemption during the fifteen (15) days prior to mailing of any notice of redemption; provided, however, that such limitation shall not apply to the transfer or exchange by the registered owner of the unredeemed portion of a Series 2015 Bond called for redemption in part.

THE REGISTERED OWNER HEREOF shall never have the right to demand payment out of any funds raised or to be raised by taxation. The Authority has no taxing power to pay debt service.

REFERENCE IS HEREBY MADE TO THE RESOLUTION, a copy of which is on file in the office of the Paying Agent/Registrar, and to all of the provisions of which the Registered Owner of this bond by the acceptance hereof hereby assents, for definitions of terms, the description of and the nature and extent of the security for the Series 2015 Bonds; the priority for the application and use of the income and revenues of the System; the Net Revenues pledged to the payment of the principal of and interest on the Series 2015 Bonds; the nature and extent and manner of enforcement of the lien and pledge securing the payment of the Series 2015 Bonds; the terms and conditions for the issuance of additional revenue obligations, including additional Senior Lien Obligations; the terms and conditions for amending the Resolution; the terms and conditions relating to the transfer or exchange of this bond; the rights, duties, and obligations of the Authority and the Paying Agent/Registrar; the terms and provisions upon which the liens, pledges, charges and covenants made therein may be discharged at or prior to the maturity of this bond, and deemed to be no longer Outstanding thereunder; and for the other terms and provisions thereof. Capitalized terms used herein, unless otherwise defined, have the same meanings assigned in the Resolution.

IT IS HEREBY DECLARED AND REPRESENTED that this bond has been duly and validly issued and delivered; that all acts, conditions, and things required or proper to be performed, exist, and be done precedent to or in the issuance and delivery of this bond have been performed, existed, and been done in accordance with law; that the Series 2015 Bonds do not exceed any statutory limitation; and that provision has been made for the payment of the principal of and interest on this bond and all of the Series 2015 Bonds by the aforesaid first lien on and pledge of the Net Revenues.

THIS BOND shall not be valid or obligatory for any purpose or be entitled to any benefit under the Resolution unless this bond either (i) is registered by the Comptroller of Public

Accounts of the State of Texas or (if) is authenticated by the Paying Agent/Registrar by the execution of the authentication certificate manually endorsed hereon. Such duly executed certificate of authentication shall be conclusive evidence that this bond was delivered by the Paying Agent/Registrar under the provisions of the Resolution.

IN WITNESS WHEREOF, the Authority has caused its corporate seal to be impressed or placed in facsimile hereon and has in the Resolution directed this bond to be signed by the President and countersigned by the Secretary of the Board of Directors by their printed facsimile signatures.

NORTH HARRIS COUNTY REGIONAL WATER  
AUTHORITY

\_\_\_\_\_  
President, Board of Directors

(AUTHORITY SEAL)

\_\_\_\_\_  
Secretary, Board of Directors

**[FORM OF COMPTROLLER'S REGISTRATION CERTIFICATE]**

The following form of Comptroller's Registration Certificate shall be attached or affixed to each of the Series 2015 Bonds initially delivered.

THE STATE OF TEXAS	§	REGISTER NO. _____
OFFICE OF THE COMPTROLLER	§	
OF PUBLIC ACCOUNTS	§	

I hereby certify that there is on file and of record in my office a certificate of the Attorney General of the State of Texas to the effect that this bond and the proceedings for the issuance hereof have been examined by him as required by law, that he finds that it has been issued in conformity with the Constitution and laws of the State of Texas and that it is a valid and binding special obligation of the North Harris County Regional Water Authority, payable from the revenues and other funds pledged to its payment by and in the proceedings authorizing the same, and I do further certify that this bond has this day been registered by me.

WITNESS MY SIGNATURE AND SEAL OF OFFICE this \_\_\_\_\_

\_\_\_\_\_  
Comptroller of Public Accounts  
of the State of Texas

[SEAL]

**[FORM OF AUTHENTICATION CERTIFICATE]**

The following form of Authentication Certificate shall appear on each of the Series 2015 Bonds.

**AUTHENTICATION CERTIFICATE**

Registration Date: \_\_\_\_\_

This bond is one of the Bonds described in and delivered pursuant to the within-mentioned Master Resolution; and, except for the Bonds initially delivered, this bond has been issued in conversion of and exchange for or replacement of a bond, bonds or a portion of a bond or bonds of an issue which originally was approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts of the State of Texas.

AMEGY BANK NATIONAL ASSOCIATION

By: \_\_\_\_\_  
Authorized Signature

**FORM OF ASSIGNMENT**

The following form of assignment shall appear on each of the Series 2015 Bonds.

**ASSIGNMENT**

For value received, the undersigned hereby sells, assigns, and transfers unto

\_\_\_\_\_ (Please print or type name, address, and zip code of Transferee)

\_\_\_\_\_ (Please insert Social Security or Taxpayer Identification Number of Transferee)

the within bond and hereby irrevocably constitutes and appoints \_\_\_\_\_ attorney to transfer said bond on the books kept for registration thereof, with full power of substitution in the premises.

DATED: \_\_\_\_\_

\_\_\_\_\_ Registered Owner

Signature Guaranteed: \_\_\_\_\_

NOTICE: The signature above must correspond to the name of the registered owner as shown on the face of this certificate in every particular, without any alteration, enlargement or change whatsoever.

Notice: Signature must be guaranteed by a member firm of the New York Stock Exchange or a commercial bank of trust company.



**EXHIBIT C**

FORM OF SPECIAL ESCROW DEPOSIT AGREEMENT

**[SEE TAB 4]**

**EXHIBIT D**

**ANNUAL FINANCIAL STATEMENTS AND OPERATING DATA**

The financial information and operating data with respect to the Authority to be provided annually in accordance with Section 9.1 of the Resolution are as specified below.

**Annual Financial Statements and Operating Data**

1. The Authority's audited financial statements for the most recently concluded fiscal year and, to the extent that such statements are not completed and available, unaudited financial statements for such fiscal year.
2. Financial information and operating data for the Authority that conforms substantially to such information and data set out in the tables appearing under the captions "INVESTMENTS" and "FINANCIAL DATA," except for "Historical Debt Service Coverage (unaudited)," in the Official Statement for the Authority's Senior Lien Revenue Refunding Bonds, Series 2014.

**Accounting Principles**

The accounting principles referred to in such section are the accounting principles described in the notes to the financial statements referred to in paragraph 1 above.

# Municipality

Is the area to be served by the project within the service area of a municipality or other public utility?: Y

If yes, has the applicant obtained an affidavit stating that the utility does not object to the construction and operation of the services and facilities in its service area?: N

If no, provide an explanation as to why not.: See Attached Enabling Legislation

NoObjectionAffidavit N/A

# Board Approved WCP

If the assistance requested is more than \$500,000 a Water Conservation Plan (WCP) is required. The WCP cannot be more than FIVE years old and must have been adopted by the applicant. Has the applicant adopted a Board-approved WCP? (Check one and attach requested information, if any.): Y

Enter date of Applicant's WCP adoption: 2013-11-04 00:00:00.0



# Water Conservation Plan

Adopted November 4, 2013

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## **North Harris County Regional Water Authority**

### **Water Conservation Plan**

#### **Overview**

The North Harris County Regional Water Authority (the "Authority") was created in 1999 pursuant to Article 16, Section 59 of the Texas Constitution by the passage of House Bill 2965 by the 75th Texas Legislature. The voters of the Authority confirmed its creation and elected the initial Board of Directors at an election held on January 15, 2000. The Authority is bounded by US 290 on the west, the Harris County line on the north (Spring Creek), Cypress Creek Parkway and Bammel-North Houston on the south, and Lake Houston on the east. The Authority covers approximately 339 square miles and currently includes approximately 644,000 residents. The Authority is empowered to secure a long-term, reliable, and quality alternative water supply for the well owners within its boundaries permitted to pump five (5) or more million gallons of groundwater annually. The Authority's primary purpose is to develop and implement a strategy for complying with the Harris-Galveston Subsidence District's Regulatory Plan which requires a reduction in groundwater usage to no more than 20 percent of total water demand in the year 2035.

Several factors contribute to the desirability of establishing this Water Conservation Plan (the "Plan"). The primary driving factor being a statutory, regulatory, and contractual obligation as a water system which purchases treated surface water from the City of Houston. The Authority is the mid-level wholesaler in a water supply chain which starts with the City of Houston treating surface water, the Authority purchasing that water, and then selling it to a number of retail water utilities within its boundaries.

#### **Purpose**

The purpose of this Plan is to identify and establish principles, practices, and standards to effectively conserve and efficiently use available water supplies and water distribution system capacity.

#### **Location**

The Authority is bounded, as shown in Exhibit 1, by US 290 on the west, the Harris County line on the north (Spring Creek), Cypress Creek Parkway and Bammel-North Houston on the south, and Lake Houston on the east. The Authority covers approximately 339 square miles and includes approximately 644,000 residents. The Authority operates a wholesale water system supplying water to multiple public water systems within its boundaries. The Authority provides no wastewater collection or treatment.

#### **Customer Data**

A full description of the Authority's customer information can be found in Appendix B, the Water Utility Profile. A summary of the information is as follows:

#### Population and Service Area Data

- The Authority encompasses 339 square miles.
- The December 2010 census population for the Authority was approximately 601,000 persons.

- The Authority provides wholesale water supply to multiple public water systems within the Authority boundary.
- The Authority expects growth at a rate of about 2.3% per year through 2020 and then less than 1% per year thereafter.

#### Active Connections

- The Authority meters all of its connections to its customers, which in turn currently serve approximately 89,750 total connections.
- All of the Authority's 55 wholesale connections have been added over the last four years.

#### High Volume Customers

- The Authority serves no direct retail connections.

#### **Water Use Data**

A full description of the Authority's water use information can be found in Appendix B, the Water Utility Profile. A summary is as follows:

#### Water Accounting Data

- In the years 2010 to 2013, the Authority has produced or purchased an average of approximately 737.412 million gallons ("MG") per month for use within its boundaries.
- In Calendar year 2012, the Authority sold a total of approximately 9,320.5 MG and transferred an additional 509 MG to the Central Harris County Regional Water Authority.
- The Authority has taken steps to account for as much water as possible through accurate metering, leak detection, and repair programs. The Authority provides only wholesale water which is only part of the actual water used by most of the purchasing public water systems; most of the Authority's customers own and operate additional water production facilities which they use to meet their total demand. During 2012, based on the total water delivered by the Authority to its customers, the Authority provided an average of approximately 94.5 gallons per capita per day (GPCD).

#### Projected Water Demands

- The Authority is able currently to receive and deliver 31 MGD of surface water and provide an additional 4 MGD from its wells. By 2025, the Authority projects to receive a daily average of approximately 72.5 MGD of surface water from the City.

#### **Water Supply System**

A full description of the Authority's water supply information can be found in Appendix B, the Water Utility Profile.



### Water Supply Sources

- The Authority's water system consists of three wells and a wholesale purchase connection from the City of Houston. The purchased surface water is delivered to two ground storage tanks (20 MG total) at the Spears Road Regional Pump Station (the "Spears Road RPS"). Five service pumps, rated at a total of 76.32 MGD, take water from the ground storage tanks and discharge to the transmission system. Three wells (4.0 MGD total) supply water to two ground storage tanks (6 MG total) at the Louetta Regional Water Plant. Water is also received from the transmission system. Four service pumps, rated at a total of 28.8 MGD, take water from the storage tanks and discharge to the transmission system. A schematic of the system is provided in Exhibit 2.

### **Wastewater Utility System**

The Authority provides no wastewater collection or treatment.

### **Conservation Rates**

The Authority has adopted water rates which provide an incentive to use surface water and promote conservation of groundwater. Section 5.12(b) of the Authority's Rate Order requires each of the Authority's customers to implement a water conservation plan that satisfies 30 TAC § 288.2(a). The Authority's wholesale water rates are listed in the table below.

<b>Source of Water</b>	<b>Fee Due to NHCRWA</b>
Authority Water	\$2.20 per 1,000 gallons
Water pumped from a Non-Exempt Well	\$1.75 per 1,000 gallons
Imported Water	\$1.75 per 1,000 gallons

### **Water Conservation Goals**

The Authority has set five-year and ten-year targets of 140 GPCD for 2020 and 140 GPCD for 2025. The Authority's targets are primarily driven by the targets of the City of Houston. The City of Houston has set a target of 140 GPCD for 2020. The state wide goal as established by the Water Conservation Implementation Task Force is an average of 140 GPCD.

### **Water Conservation Plan Elements – Best Management Plans (BMPs) and Other Programs**

#### Record Management Program

- To track the effectiveness of the instituted BMPs, the Authority's Program Manager and Operator will compile the necessary metering data so that ongoing water usage can be compared to historical usage.

#### Metering Devices

- Each well, purchase point and wholesale distribution point is metered to measure and account for the amount of water produced from the source of supply, purchase or wholesale delivery.

- The Authority is committed to a comprehensive metering program. This includes a program to test, repair, and periodically replace water meters as needed. The Authority's goal for meter accuracy is to obtain consistent readings within plus or minus five percent (5%). The Authority maintains a program to identify meters which may be functioning outside those parameters and takes steps to insure accuracy on an ongoing basis.

#### Measures to Determine and Control Unaccounted Water

- The Authority is committed to measures to determine and control unaccounted uses of water through periodic visual inspections along distribution lines, ongoing audits of the water system to determine illegal connections, abandoned services, etc.

#### Leak Detection and Repair

- The Authority is committed to a program of leak detection and repair. Operators for the water system are instructed to address reports of leaks in a manner to limit the loss of unbillable water.

#### Reservoir System Operating Plan

- The Authority does not own or operate any reservoirs.

#### Education Programs

- Media Campaign -

The Authority publishes a newsletter, WATERLINES, which contains messages about water conservation. The newsletter has been delivered at least annually to approximately 150,000+ homes since 2000. The Authority has also published and distributed to the retail water suppliers approximately 150,000 bill stuffers (i.e. storm water runoff pollution) and 160,000 brochures (i.e. water efficiency tips) each year. The Authority maintains websites at <http://www.nhcrwa.com> and <http://www.stopthedrop.org> that focus on water conservation messages and information.

- School Programs -

The Authority is a committed partner with area water agencies, water industry consultants (legal and engineering firms) and municipal utility districts to bring major, interactive water conservation education programs to local schools. LEARNING FROM OUR PAST TO INFLUENCE OUR FUTURE is presented at the 2<sup>nd</sup>, 4<sup>th</sup> and 7<sup>th</sup> grade levels and utilizes Texas History to demonstrate the importance of adequate water supplies to the state's past, present and future. The materials include a wide range of classroom materials and follow-up activities that are aligned with the Texas Essential Knowledge and Skills (TEKS) guidelines for science and social studies. This water centric program, now also available electronically on DVDs, reaches more than 7,000 2<sup>nd</sup> and 4<sup>th</sup> grade students within the Authority's boundaries each school year. Additionally, the Authority operates two Mobile Teaching Labs with hands-on exhibits about water and water conservation that travel to local elementary schools, visited by approximately 10,000 students during a school year.

#### Water Rate Structure

- The Authority has adopted a rate schedule that promotes conservation of groundwater and provides for a flat rate of wholesale water to its customers to supplement the use of groundwater.

#### Water Reuse

- In April 2009, the Authority Board passed a resolution adopting its Water Conservation Reuse Incentive Program (the "Reuse Program"). The Reuse Program gives participating water systems \$0.50 credit for every 1,000 gallons of reuse used on monthly fees owed the Authority for surface water used and groundwater pumped. The credit continues until one of these conditions is met: (1) five years of credits are given, or (2) the total amount of the credits issued equals the cost of the infrastructure constructed to allow the reuse. As part of the agreement authorizing the credit, the water system agrees to continue operation of the infrastructure and use of reuse through at least the estimated useful life of the infrastructure.
- Interest in the Reuse Program continues to grow and the Authority is currently reviewing possible revisions to the Reuse Program to increase participation and by so doing increase reuse.

#### **Regional Water Planning and Coordination**

The Authority is located within the Region H Water Planning Area. The Authority, through its representatives, is in continuous contact with the Region H Water Planning Group during each five (5) year planning cycle of the Region H Water Plan. In accordance with the Texas Administrative Code, Section 288.5 (l) (3), the Authority will review and update its Plan every five (5) years to coincide with the adoption of each Region H Water Plan. The Authority will submit a copy of the Plan to Region H.

#### **Submittal**

The Authority will submit a copy of this Plan and any revised versions of the Plan to the Executive Director, Texas Commission on Environmental Quality (the "TCEQ") and the Executive Administrator, Texas Water Development Board. The City of Houston will also be provided a copy of this Plan.

#### **Authority and Adoption**

The Board of Directors of the Authority adopted this Water Conservation Plan by Resolution on November 4, 2013. A copy of the Resolution is included as Appendix A of this Plan. The Authority's General Manager, or his designee, is authorized by the Board to implement and enforce this Plan.

#### **Successive Customer Conservation**

Section 5.12 (b) of the Authority's Rate Order requires (1) any water system which receives water from the Authority to have a water conservation plan and (2) any water system receiving water from the Authority which intends to sell a portion of that water to a wholesale customer shall require the wholesale

customer to also implement a water conservation plan. The water conservation plan shall be in compliance with all applicable rules of the TCEQ.

In addition, in accordance with Texas Administrative Code, 288.5(1)(F), every water supply contract entered into or renewed by the Authority, including contract extensions, will require that each successive wholesale customer develops and implements a Water Conservation Plan or water conservation measures using applicable elements of Chapter 288, Texas Administrative Code. If the customer intends to resell the water, then any contracts for such reselling must require all downstream customers to have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with applicable provisions of Chapter 288, Texas Administrative Code.

**Appendix A**  
**Resolution Adopting Water Conservation Plan**



CERTIFICATE FOR RESOLUTION

THE STATE OF TEXAS §
COUNTY OF HARRIS §
NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY §

I, the undersigned Secretary of the Board of Directors (the "Board") of North Harris County Regional Water Authority (the "Authority"), hereby certify as follows:

1. The Board convened in regular session, open to the public, on the 4th day of November, 2013, at the regular meeting place thereof, and the roll was called of the members of the Board, to-wit:

- James D. Pulliam President/Investment Officer
Alan J. Rendl Vice President
Lenox A. Sigler Secretary
Kelly P. Fessler Treasurer
Ron Graham Assistant Secretary

All members of the Board were present, thus constituting a quorum. Whereupon, among other business, the following was transacted at such meeting:

RESOLUTION ADOPTING UPDATED WATER CONSERVATION PLAN

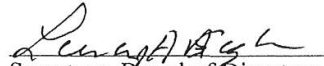
was duly introduced for the consideration of the Board. It was then duly moved and seconded that such Resolution be adopted; and, after due discussion, such motion, carrying with it the adoption of said Resolution, prevailed and carried by the following vote:

AYES: 5 NOES: 0

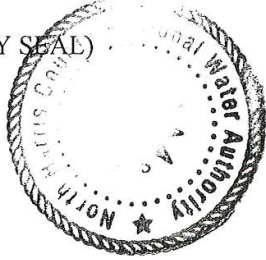
2. A true, full, and correct copy of the aforesaid Resolution adopted at the meeting described in the above and foregoing paragraph is attached to and follows this Certificate; such Resolution has been duly recorded in said Board's minutes of such meeting; the above and foregoing paragraph is a true, full, and correct excerpt from the Board's minutes of such meeting pertaining to the adoption of such Resolution; the persons named in the above and foregoing paragraph are the duly chosen, qualified, and acting officers and members of the Board as indicated therein; each of the officers and members of the Board was duly and sufficiently notified officially and personally, in advance of the time, place, and purpose of such meeting and that such Resolution would be introduced and considered for adoption at such meeting and each of such officers and members consented, in advance, to the holding of such meeting for such purpose; such meeting was open to the public, as required by law, and public notice of the time,

place and purpose of such meeting was given as required by Chapter 551, Texas Government Code, as amended, and Section 49.063, Texas Water Code, as amended.

SIGNED AND SEALED the 4<sup>th</sup> day of November, 2013.

  
Secretary, Board of Directors

(AUTHORITY SEAL)



## RESOLUTION ADOPTING UPDATED WATER CONSERVATION PLAN

WHEREAS, the North Harris County Regional Water Authority (the "Authority") is a regional water authority created pursuant to House Bill 2965 of the 76<sup>th</sup> Legislature, as amended (the "Act"), and Article XVI, Section 59 of the Texas Constitution; and

WHEREAS, the Authority was created to, among other things, accomplish the purposes of Article XVI, Section 59 of the Texas Constitution, including the reduction of groundwater withdrawals, the conservation, preservation, protection, recharge and prevention of waste of groundwater, and of groundwater reservoirs or their subdivisions, and the control of subsidence caused by withdrawal of water from those groundwater reservoirs or their subdivisions; and

WHEREAS, the Board of Directors (the "Board") of the Authority previously approved, implemented and submitted to the Texas Water Development Board (the "TWDB") a Water Conservation dated May 2002; and

WHEREAS, the Board of the Authority has carefully considered the current water conditions in the Authority and area-wide and has determined that adoption of an Updated Water Conservation Plan (the "Plan") is necessary to identify and establish principles, practices and standards to effectively conserve and efficiently use available water supplies and water distribution system capacity; and

WHEREAS, the Board of the Authority desires to evidence its approval of the Plan and to adopt the Plan as the official policy of the Authority.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY THAT:

Section 1. Findings. The recitals and facts set forth above are hereby found to be true and correct and are incorporated by reference as though fully set forth herein.

Section 2. Approval of the Plan. The Board of the Authority hereby approves and adopts the Plan as set forth in this Resolution, and the provisions of the Plan shall be implemented immediately and enforced as rules of the Authority.

Section 3. Declaration of Policy, Purpose and Intent. The purpose of the Plan is to promote the efficient and responsible use of water by (1) implementing structural programs that result in quantifiable water conservation results; (2) developing, maintaining and enforcing water conservation policies; and (3) supporting public education programs that educate customers about water and wastewater facilities operations, water quantity and quality, water conservation and non-point source protection.

Section 4. Service Area. The service area of the Authority covers approximately 339 square miles and is reflected on **Exhibit 1** of the Plan. Customer profile data for the Authority, including customer data and water use data is included in the Water Utility Profile included as **Appendix B** to the Plan. Such **Appendix B** shall hereafter be updated at least once every five (5) years.



Section 5. Five-year and Ten-year Targets. The Authority shall use reasonable efforts to reduce water loss and municipal use of water. In doing so, the Authority has identified the following goals for water savings:

- A. Five-year Target — by December 31, 2020, the Authority shall attempt to reduce the average daily municipal use of water in the Authority's service area to 140 gallons per capita per day ("GPCD") and to keep the unaccounted water in the system below 5% annually.
- B. Ten-year Target — by December 31, 2025, the Authority shall attempt to continue to maintain the average daily municipal use of water in the Authority's service area at 140 GPCD and to keep the unaccounted water in the system below 5% annually.

Notwithstanding the targets identified above, the Authority shall not be obligated to achieve any water savings in its service area, and the Authority's failure to do so shall not subject the Authority to any liability whatsoever.

Section 6. Metering Devices. The Authority shall meter all water delivered by the Authority, and all such metering devices will be calibrated regularly to ensure reasonable accuracy.

Section 7. Unaccounted Water Usage. The Authority authorizes the Authority's General Manager, Program Manager and Operator to implement any reasonable program to determine unaccounted-for uses of water and to make recommendations to the Authority regarding measures to control such unaccounted-for uses of water. Such measures may include periodic visual inspections along distribution lines, annual or monthly audits of the water system to determine illegal connections, and investigation of abandoned services. The Authority's Operator shall also continue the existing programs of leak detection, repair, and water loss accounting for the water storage, delivery, and transmission system in order to control unaccounted-for uses of water.

Section 8. Continuing Public Education and Information. The Authority has previously implemented extensive public education programs and media efforts to provide information about water conservation and the importance of having an adequate water supply. The Authority intends to continue such efforts and promote the Plan with the general public, which may include any of the following:

- A. Publication of articles in local newspapers and newsletters of general circulation in the Authority's service area, provide information regarding water conservation; and
- B. Direct distributions to customers of the Authority of educational and informational material (*e.g.*, brochures and billing inserts) regarding water conservation; and
- C. Additional educational activities consisting of (i) conducting informational school programs in schools located within the Authority's service area; (ii) conducting educational programs for residents within the Authority's service area;

(iii) conducting or engaging in such other informational or educational activity designed to further water conservation measures as may be determined by the Board and consistent with the purposes and policies of this Plan; or (iv) any combination of the foregoing.

Section 9. Cost-based Rate Structure. The Authority hereby acknowledges that it has adopted a flat water rate structure, as reflected in its Rate Order, that is intended to encourage use of water from the Authority and conserve groundwater to mitigate subsidence.

Section 10. Reservoir Systems Operations Plan. The Authority does not own any reservoirs within a common watershed or river basin and is not required to establish a reservoir systems operation plan.

Section 11. Implementation and Enforcement. Without limitation to specific actions stated in the Plan to be taken by the Authority's General Manager, the Program Manager and Operator will assist the Authority as directed in administering and enforcing the Plan, and overseeing the execution and implementation of all elements of the Plan. The Authority shall ensure adequate records for Plan verification are kept. The Authority's General Manager shall report to the Board regarding actions taken and which need to be taken under the Plan.

Section 12. Record Management. The Board authorizes the Authority's General Manager, with the input and assistance of the Program Manager and Operator, to establish a record management system to record water pumped, water delivery, water sales, and water losses.

Section 13. Wholesale Water Customers. The Authority shall require that each successive wholesale customer of the Authority, develop and implement a water conservation plan or water conservation measures in compliance with all applicable rules of the Texas Commission on Environmental Quality (the "TCEQ"). This requirement will also extend to each successive wholesale customer in the resale of water.

Section 14. Submission. The Authority shall submit a copy of the Plan to the Executive Director of the TCEQ, the Executive Administrator of the TWDB and to the appropriate officer/utility official of the City of Houston.

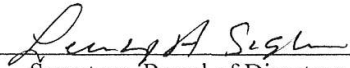
Section 15. Five (5) Year Review. The Authority shall review and update the Plan by November 2018 and every five (5) years thereafter, or more frequently, as may be appropriate, based on an assessment of previous five (5) year and ten (10) year targets and any other new or updated information.

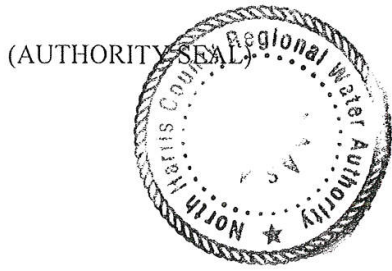
PASSED AND APPROVED this 4<sup>th</sup> day of November, 2013.

NORTH HARRIS COUNTY REGIONAL WATER  
AUTHORITY

By:   
President, Board of Directors

ATTEST:

By:   
Secretary, Board of Directors



**Appendix B**  
**Water Utility Profile**



## Texas Commission on Environmental Quality

### PROFILE AND WATER CONSERVATION PLAN REQUIREMENTS FOR WHOLESALE PUBLIC WATER SUPPLIERS

This form is provided to assist wholesale public water suppliers in water conservation plan development. If you need assistance in completing this form or in developing your plan, please contact the conservation staff of the Resource Protection Team in the Water Availability Division at (512) 239-4691.

Name: North Harris County Regional Water Authority

Address: 3648 Cypress Creek Pkwy., Suite 110, Houston, Texas 77068

Telephone Number: (281) 440-3924 Fax: (281) 440-4104

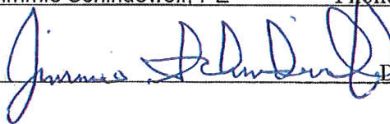
Water Right No. (s): None

Regional Water Planning Group: H

Form Completed by: Anthony E. Bennett, RS

Title Associate, The Cadmus Group, INC.

Person implementing conservation program: Jimmie Schindewolf, PE Phone: (281) 440-3924

Signature:  Date: 11/4/13

**NOTE: If the plan does not provide information for each requirement, include an explanation of why the requirement is not applicable.**

## PROFILE

### I. WHOLESALE SERVICE AREA POPULATION AND CUSTOMER DATA

#### A. Population and Service Area Data

1. Service area size (in square miles): 339  
(Please attach a copy of service-area map)
2. Current population of service area: 644,000



3. Current population served for

a. Water 279,629

b. Wastewater None

4. Population served for previous five years:

<u>Year</u>	<u>Population</u>
2010	234,723
2011	261,046
2012	270,178
2013	279,629

5. Projected population for service area in the following decades.

<u>Year</u>	<u>Population</u>
2020	757,000
2030	808,000
2040	850,000
2050	885,000
2060	917,000

6. List source or method for the calculation of current and projected population size.

Population estimate from a study conducted by the Harris-Galveston Subsidence District. While the 2020-2060 projected population shown above reflects the total population within the Authority's boundary, only that population necessary to meet groundwater reduction requirements will actually be served by the Authority.

*B. Customers Data*

List (or attach) the names of all wholesale customers, amount of annual contract, and amount of annual use for each customer for the previous year:

See Appendix C

**II. WATER USE DATA FOR SERVICE AREA**

*A. Water Delivery*

Indicate if the water provided under wholesale contracts is treated or raw water and the annual amounts for the previous five years (in acre feet):

<u>Year</u>	<u>Treated Water</u>	<u>Raw Water</u>
2010	14,576.821	
2011	36,369.951	
2012	30,166.100	
2013	16,319.846 (6 months)	
<b>Totals</b>	<b>97,432.718</b>	

B. *Water Accounting Data*

1. Total amount of water diverted at the point of diversion(s) for the previous five years (in acre-feet) for all water uses:

Year	2010	2011	2012	2013
Month				
January		2,103.580	1,928.362	2,064.459
February	113.622	2,096.439	1,402.465	1,744.931
March	188.264	2,874.961	1,860.259	2,927.219
April	431.642	3,519.182	2,430.983	2,796.685
May	900.393	4,007.583	3,222.561	3,242.082
June	1,200.454	3,971.986	3,025.920	3,162.436
July	1,354.343	3,563.805	1,943.535	
August	2,052.285	3,655.337	2,797.797	
September	2,074.083	3,159.371	2,990.287	
October	2,917.959	3,040.551	2,875.340	
November	2,327.761	2,680.916	2,734.082	
December	2,302.904	2,077.644	2,400.265	
Totals	15,863.710	36,751.355	29,611.856	15,937.812

2. Wholesale population served and total amount of water diverted for municipal use for the previous five years (in acre-feet):

Year	Total Population Served	Total Annual Water Diverted for Municipal Use
2010	234,723	15,863.710
2011	261,046	36,751.355
2012	270,178	29,611.856
2013	279,629	15,937.812 (6 months)

C. *Projected Water Demands*

If applicable, project and attach water supply demands for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirements from such growth.

The Authority supplies only supplemental water to most districts. Demand on the Authority's water supply is based solely on the water necessary to reduce the groundwater consumption within the Authority's boundaries. Based on groundwater reduction targets set by the Harris-Galveston Subsidence District and projected per capita water use, it is projected that the Authority will need to provide surface water as portrayed below.

<u>Year</u>	<u>Groundwater Reduction Percentage</u>	<u>Projected Total Demand (MGD)</u>	<u>Projected GPCD</u>	<u>Projected SW Demand (MGD)</u>
2010	30%	95.615	159.0	28.686
2025	60%	120.86	154.5	72.516
2035	80%	127.63	154.0	102.104

### III. WATER SUPPLY SYSTEM DATA

#### A. Projected Water Demands

List all current water supply sources and the amounts authorized (in acre-feet) with each.

<u>Water Type</u>	<u>Source</u>	<u>Amount Authorized</u>
Surface Water		
Groundwater	3 wells in Gulf Coast Aquifer Contract City of Houston – Lake	4,480.575 (maximum)
Other	Houston	34,724.460

#### B. Treatment and Distribution System (if providing treated water)

1. Design daily capacity of system (MGD): 35
2. Storage capacity (MGD):
  - a. Elevated 0
  - b. Ground 26
3. Please attach a description of the water system. Include the number of treatment plants, wells, and storage tanks.

The Authority's water system consists of three wells and a wholesale purchase connection from the City of Houston. The purchased surface water supplies water to two ground storage tanks (20 MG total) at the Spears Road Regional Pump Station. Five service pumps, rated at a total of 76.32 MGD, take water from the ground storage and discharge to the transmission system. Three wells (4.0 MGD total) supply water to two ground storage tanks (6 MG total) at the Louetta Regional Water Plant. Water is also received from the transmission system supplied by the Spears Road Regional Pump Station. Four service pumps, rated at a total of 28.8 MGD, take water from the storage tanks and discharge to the transmission System. A schematic of the system is provided in Exhibit 2.



**IV. WASTEWATER SYSTEM DATA**

*A. Wastewater System Data (if applicable)*

The North Harris County Regional Water Authority provides no wastewater service.

**Appendix C**

**Wholesale Customers, Amount of Annual Contract, and Amount  
of Annual Use During Calendar Year 2012**

<b>Wholesale Customer</b>	<b>Contracted Amount (acre-feet)</b>	<b>Previous Year Amount of Water Delivered (acre-feet)</b>
AQUA TEXAS, INC. (CANDELIGHT HILLS)	No Contract Minimum	283.215
BAMMEL UD	No Contract Minimum	318.719
BILMA PUD	No Contract Minimum	541.168
BRIDGESTONE MUD	No Contract Minimum	1338.068
CHARTERWOOD MUD	No Contract Minimum	486.517
CNP UD	No Contract Minimum	659.022
CY-CHAMP PUD	No Contract Minimum	636.426
CYPRESS FOREST PUD	No Contract Minimum	846.991
CYPRESS-KLEIN UD/ HARRIS COUNTY MUD 316	No Contract Minimum	571.473
CYPRESSWOOD UD / HARRIS COUNTY WCID 132	No Contract Minimum	642.241
FAULKEY GULLEY MUD	No Contract Minimum	988.222
FOUNTAINHEAD MUD	672.086	505.979
GRANT ROAD PUD	No Contract Minimum	251.486
HARRIS COUNTY FWSD 52	No Contract Minimum	629.659
HARRIS COUNTY MUD 16	554.471	502.319
HARRIS COUNTY MUD 18	No Contract Minimum	421.769
HARRIS COUNTY MUD 24	No Contract Minimum	893.918
HARRIS COUNTY MUD 44	No Contract Minimum	262.872
HARRIS COUNTY MUD 86	No Contract Minimum	495.091
HARRIS COUNTY MUD 104	No Contract Minimum	480.928
HARRIS COUNTY MUD 191	No Contract Minimum	606.685
HARRIS COUNTY MUD 202	No Contract Minimum	157.888

<b>Wholesale Customer</b>	<b>Contracted Amount (acre-feet)</b>	<b>Previous Year Amount of Water Delivered (acre-feet)</b>
HARRIS COUNTY MUD 211 and 233	No Contract Minimum	291.188
HARRIS COUNTY MUD 275	No Contract Minimum	124.937
HARRIS COUNTY MUD 286	No Contract Minimum	544.939
HARRIS COUNTY MUD 367 and 383	2,128.273	1,088.074
HARRIS COUNTY MUD 368	No Contract Minimum	792.058
HARRIS COUNTY MUD 468	1,209.755	400.594
HARRIS COUNTY WCID 91	No Contract Minimum	287.027
HARRIS COUNTY WCID 109	No Contract Minimum	856.293
HARRIS COUNTY WCID 110	No Contract Minimum	872.782
HARRIS COUNTY WCID 114	No Contract Minimum	678.997
HARRIS COUNTY WCID 116	No Contract Minimum	485.986
HARRIS COUNTY WCID 119	No Contract Minimum	686.995
HEATHERLOCH MUD	No Contract Minimum	511.798
KLEIN PUD	No Contract Minimum	314.368
KLEINWOOD MUD	No Contract Minimum	417.123
LOUETTA NORTH PUD	No Contract Minimum	494.907
MALCOMSON ROAD UD	750.496	1,015.360
NORTHWEST HARRIS CO. MUD 5	No Contract Minimum	575.594
NORTHWEST HARRIS CO. MUD 6	No Contract Minimum	323.436
NORTHWEST HARRIS CO. MUD 20	No Contract Minimum	441.131
NORTHWEST HARRIS CO. MUD 21 and 22	465.980	637.779
NORTHWEST HARRIS CO. MUD 23	336.043	315.960

<b>Wholesale Customer</b>	<b>Contracted Amount (acre-feet)</b>	<b>Previous Year Amount of Water Delivered (acre-feet)</b>
NORTHWEST HARRIS CO. MUD 24	No Contract Minimum	236.983
NORTHWEST HARRIS CO. MUD 30	No Contract Minimum	344.636
NORTHWEST HARRIS CO. MUD 36	No Contract Minimum	398.541
PONDEROSA FOREST UD	No Contract Minimum	895.971
PRESTONWOOD FOREST UD	No Contract Minimum	446.268
SPRING CREEK FOREST PUD	No Contract Minimum	384.071
TERRANOVA WEST MUD / LOUETTA RD UD	No Contract Minimum	644.890
WESTADOR MUD	No Contract Minimum	574.201

## Exhibits

Exhibit 1  
North Harris County Regional Water Authority

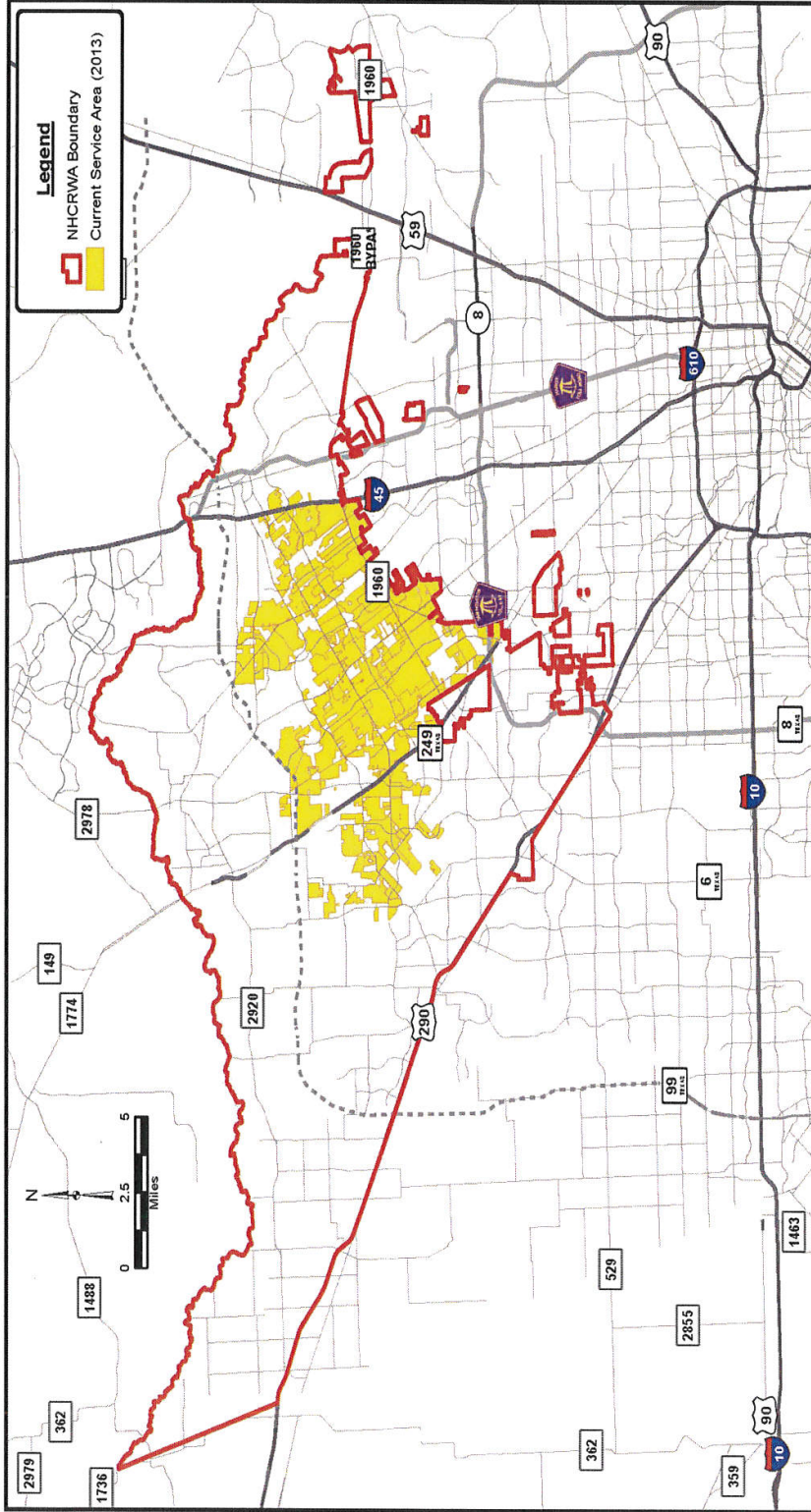
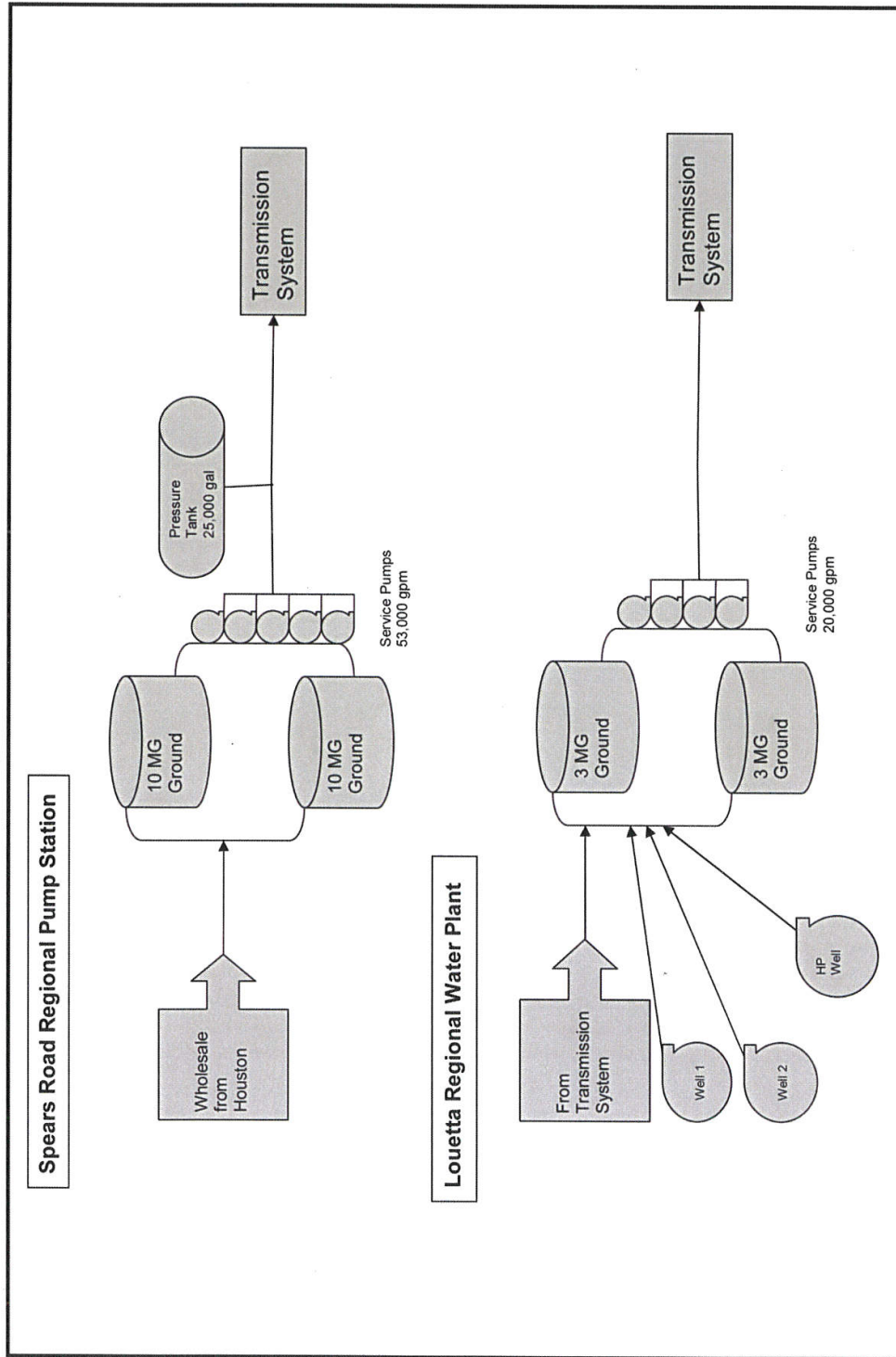




Exhibit 2  
System Schematic



# Retail Water Services



Does the applicant provide retail water services?: N

NHCWRA is not required to submit a Water Use Survey because it is a wholesale provider.

# Potable Water Services

Is the applicant a retail public utility that provides potable water?: N

NHCWRA is not required to submit a Water Loss Audit because it is a wholesale provider.

# Provide Wastewater Services

Does the applicant provide wastewater services?: N

# Provide Regional or Wholesale Water Services

Does the applicant provide regional or wholesale water services?: Y

List the top TEN customers of the system by annual usage in gallons and percentage of total usage, including whether any are in bankruptcy.

Customer Name	Annual Usage (gal)	Percent of Usage	Bankruptcy (Y/N)
Harris Co. M.U.D. 358	889,970,810	2.96%	N
Harris Co. F.W.S.D. 61	845,727,000	2.81%	N
NW Harris Co. M.U.D. 5	808,367,082	2.69%	N
Tomball, City of	757,109,000	2.52%	N
Harris Co. M.U.D. 387	716,989,000	2.39%	N
Bridgestone M.U.D.	666,524,247	2.22%	N
Harris Co. M.U.D. 367 & 383	561,887,322	1.87%	N
Harris Co. M.U.D. 365	500,742,000	1.67%	N
Aqua Texas, Inc.	486,972,306	1.62%	N
Harris Co. M.U.D. 24	480,047,739	1.60%	N

Comments: Calendar Year 2015 Data

List the top TEN customers of the system by gross revenues and percent of total revenues, including whether any are in bankruptcy.

Customer Name	Annual Revenue	Percent of Revenue	Bankruptcy (Y/N)
Harris Co. M.U.D. 358	\$1,779,942	3.17%	N
Harris Co. F.W.S.D. 61	\$1,691,454	3.02%	N
NW Harris Co. M.U.D. 5	\$1,656,254	2.95%	N
Tomball, City of	\$1,514,218	2.70%	N
Harris Co. M.U.D. 387	\$1,433,978	2.56%	N
Bridgestone M.U.D.	\$1,378,440	2.46%	N
Harris Co. M.U.D. 367 & 383	\$1,311,331	2.34%	N
Harris Co. M.U.D. 24	\$1,054,398	1.88%	N
Aqua Texas, Inc.	\$1,010,638	1.80%	N
Harris Co. M.U.D. 365	\$1,001,484	1.79%	N

Provide a summary of the wholesale contracts with customers.

Contract Type	Minimum Annual Amount	Usage Fee Per 1000 Gallons	Annual Operations and Maintenance	Annual Capital Costs	Annual Debt Service	Other
N/A	\$0	\$0	\$0	\$0	\$0	\$0

## Debt

Disclose all issues that may affect the project or the applicant's ability to issue and/or repay debt (such as anticipated lawsuits, judgments, bankruptcies, major customer closings, etc).: The NHCRWA does not anticipate any lawsuits that would adversely impact its ability to make timely debt service payments. The NHCRWA has no outstanding judgments and is not aware of any customer bankruptcies or major customer closings that would impact its ability to make timely payment of its debt service.

Has the applicant ever defaulted on any debt?: N

## Taxing Authority

Does the applicant have taxing authority?: N

Tax Assessed Valuations

Fiscal Year Ending	Net Taxable Assessed Value (\$)	Tax Rate (\$)	General Fund (\$)	Interest & Sinking Fund (\$)	Tax Levy (\$)	Percentage Current Collections (%)	Percentage Total Collections (%)
2016							
2015							
2014							
2013							
2012							

Tax Assessed Values Comments:

TaxRateTable N/A



TaxAssessedValueByClass\_0 N/A

TaxAssessedValueByClass\_1 N/A

TaxAssessedValueByClass\_2 N/A

TaxAssessedValueByClass\_3 N/A

TaxAssessedValueByClass\_4 N/A

# Top Ten Taxpayers

Taxpayer Name	Assessed Value	Percent of Total	Bankruptcy (Y/N)

Top Ten Taxpayer Comments:

## Tax Rate and Sales Tax

Provide the maximum tax rate permitted by law per \$100 of property value.:

Does the applicant collect sales tax?: N

Is the proposed loan tax-exempt?: N

## NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY TWDB SWIFT BONDS PLUS CIP BONDS AND GRP BONDS BY YEAR

	2015	2016	2017	2018	2019	2020	2021	2022	Total All Bonds
Plant Expansion	\$8,160,000	\$42,845,000	\$236,630,000	\$237,635,000	\$4,290,000	\$4,290,000	\$17,910,000		\$551,760,000
1st Source Line	\$58,125,000	\$26,905,000	\$39,585,000	\$36,085,000	\$29,025,000	\$32,410,000			\$222,135,000
2nd Source Line		\$67,950,000	\$12,425,000	\$37,480,000					\$117,855,000
Transmission System	\$10,900,000	\$2,545,000	\$6,035,000	\$68,750,000	\$47,155,000				\$135,385,000
Distribution System	\$3,250,000	\$40,875,000							\$44,125,000
System - 249 Pumping Station		\$13,930,000	\$93,890,000						\$107,820,000
Improvement Plan (CIP)		\$48,600,000			\$170,000,000	\$100,000,000	\$100,000,000	\$100,000,000	\$48,600,000
Water Reduction Plan (GRP)									\$470,000,000
<b>Bonds</b>	<b>\$80,435,000</b>	<b>\$243,650,000</b>	<b>\$388,565,000</b>	<b>\$379,950,000</b>	<b>\$250,470,000</b>	<b>\$136,700,000</b>	<b>\$117,910,000</b>	<b>\$100,000,000</b>	<b>\$1,697,680,000</b>

The TWDB previously approved this project funding as a part of the TWDB's 2015 multi-year approval process. This project/funding was part of the NHRWA 2016 Abridged Application. This project/funding was part of the NHRWA 2016 Abridged Application. This project/funding was part of the NHRWA 2016 Abridged Application. This project/funding was part of the NHRWA 2016 Abridged Application.

NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
 SENIOR LIEN REVENUE BONDS, SERIES 2016  
 PROJECT Nos. 51023, 51021, 51009, AND 51004 APPROVED IN 2015

=====
   
Debt Service Schedule
   
=====

Date	Principal	Coupon	Interest	Period Total	Fiscal Total
6/15/17			1,914,459.17	1,914,459.17	
12/15/17			1,640,965.00	1,640,965.00	3,555,424.17
6/15/18			1,640,965.00	1,640,965.00	
12/15/18	2,540,000.00	2.900000	1,640,965.00	4,180,965.00	5,821,930.00
6/15/19			1,604,135.00	1,604,135.00	
12/15/19	2,615,000.00	2.900000	1,604,135.00	4,219,135.00	5,823,270.00
6/15/20			1,566,217.50	1,566,217.50	
12/15/20	2,690,000.00	2.900000	1,566,217.50	4,256,217.50	5,822,435.00
6/15/21			1,527,212.50	1,527,212.50	
12/15/21	2,770,000.00	2.900000	1,527,212.50	4,297,212.50	5,824,425.00
6/15/22			1,487,047.50	1,487,047.50	
12/15/22	2,850,000.00	2.900000	1,487,047.50	4,337,047.50	5,824,095.00
6/15/23			1,445,722.50	1,445,722.50	
12/15/23	2,930,000.00	2.900000	1,445,722.50	4,375,722.50	5,821,445.00
6/15/24			1,403,237.50	1,403,237.50	
12/15/24	3,015,000.00	2.900000	1,403,237.50	4,418,237.50	5,821,475.00
6/15/25			1,359,520.00	1,359,520.00	
12/15/25	3,105,000.00	2.900000	1,359,520.00	4,464,520.00	5,824,040.00
6/15/26			1,314,497.50	1,314,497.50	
12/15/26	3,195,000.00	2.900000	1,314,497.50	4,509,497.50	5,823,995.00
6/15/27			1,268,170.00	1,268,170.00	
12/15/27	3,290,000.00	2.900000	1,268,170.00	4,558,170.00	5,826,340.00
6/15/28			1,220,465.00	1,220,465.00	
12/15/28	3,385,000.00	2.900000	1,220,465.00	4,605,465.00	5,825,930.00
6/15/29			1,171,382.50	1,171,382.50	
12/15/29	3,480,000.00	2.900000	1,171,382.50	4,651,382.50	5,822,765.00
6/15/30			1,120,922.50	1,120,922.50	
12/15/30	3,580,000.00	2.900000	1,120,922.50	4,700,922.50	5,821,845.00
6/15/31			1,069,012.50	1,069,012.50	
12/15/31	3,685,000.00	2.900000	1,069,012.50	4,754,012.50	5,823,025.00
6/15/32			1,015,580.00	1,015,580.00	
12/15/32	3,795,000.00	2.900000	1,015,580.00	4,810,580.00	5,826,160.00
6/15/33			960,552.50	960,552.50	
12/15/33	3,905,000.00	2.900000	960,552.50	4,865,552.50	5,826,105.00
6/15/34			903,930.00	903,930.00	
12/15/34	4,015,000.00	2.900000	903,930.00	4,918,930.00	5,822,860.00
6/15/35			845,712.50	845,712.50	
12/15/35	4,135,000.00	2.900000	845,712.50	4,980,712.50	5,826,425.00
6/15/36			785,755.00	785,755.00	
12/15/36	4,250,000.00	2.900000	785,755.00	5,035,755.00	5,821,510.00
6/15/37			724,130.00	724,130.00	
12/15/37	4,375,000.00	2.900000	724,130.00	5,099,130.00	5,823,260.00
6/15/38			660,692.50	660,692.50	
12/15/38	4,505,000.00	2.900000	660,692.50	5,165,692.50	5,826,385.00
6/15/39			595,370.00	595,370.00	
12/15/39	4,635,000.00	2.900000	595,370.00	5,230,370.00	5,825,740.00
6/15/40			528,162.50	528,162.50	
12/15/40	4,770,000.00	2.900000	528,162.50	5,298,162.50	5,826,325.00
6/15/41			458,997.50	458,997.50	
12/15/41	4,905,000.00	2.900000	458,997.50	5,363,997.50	5,822,995.00
6/15/42			387,875.00	387,875.00	



NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
 SENIOR LIEN REVENUE BONDS, SERIES 2016  
 PROJECT Nos. 51023, 51021, 51009, AND 51004 APPROVED IN 2015

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Debt Service Schedule
   
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Date	Principal	Coupon	Interest	Period Total	Fiscal Total
12/15/42	5,050,000.00	2.900000	387,875.00	5,437,875.00	5,825,750.00
6/15/43			314,650.00	314,650.00	
12/15/43	5,195,000.00	2.900000	314,650.00	5,509,650.00	5,824,300.00
6/15/44			239,322.50	239,322.50	
12/15/44	5,345,000.00	2.900000	239,322.50	5,584,322.50	5,823,645.00
6/15/45			161,820.00	161,820.00	
12/15/45	5,500,000.00	2.900000	161,820.00	5,661,820.00	5,823,640.00
6/15/46			82,070.00	82,070.00	
12/15/46	5,660,000.00	2.900000	82,070.00	5,742,070.00	5,824,140.00
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	113,170,000.00		59,281,679.17	172,451,679.17	
ACCRUED					
	113,170,000.00		59,281,679.17	172,451,679.17	
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Dated 11/15/16 with Delivery of 11/15/16  
 Bond Years 2,044,195.833  
 Average Coupon 2.900000  
 Average Life 18.063054  
 N I C % 2.900000 % Using 100.0000000

Weighted Bond Years 2,044,195.833  
 Weighted Average Life 18.063054  
 Weighted N I C % 2.900000 % Using 100.0000000  
 T I C % 2.899850 % From Delivery Date

Micro-Muni Debt Date: 04-15-2016 @ 10:22:30 Filename: NHCRWA Key: 2016ABCD

NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
 SENIOR LIEN REVENUE BONDS, SERIES 2016  
 SECOND SOURCE TRANSMISSION LINE PHASE I PROJECT No. 51021

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Debt Service Schedule

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Date	Principal	Coupon	Interest	Period Total	Fiscal Total
6/15/17			1,149,487.50	1,149,487.50	
12/15/17			985,275.00	985,275.00	2,134,762.50
6/15/18			985,275.00	985,275.00	
12/15/18	1,525,000.00	2.900000	985,275.00	2,510,275.00	3,495,550.00
6/15/19			963,162.50	963,162.50	
12/15/19	1,570,000.00	2.900000	963,162.50	2,533,162.50	3,496,325.00
6/15/20			940,397.50	940,397.50	
12/15/20	1,615,000.00	2.900000	940,397.50	2,555,397.50	3,495,795.00
6/15/21			916,980.00	916,980.00	
12/15/21	1,665,000.00	2.900000	916,980.00	2,581,980.00	3,498,960.00
6/15/22			892,837.50	892,837.50	
12/15/22	1,710,000.00	2.900000	892,837.50	2,602,837.50	3,495,675.00
6/15/23			868,042.50	868,042.50	
12/15/23	1,760,000.00	2.900000	868,042.50	2,628,042.50	3,496,085.00
6/15/24			842,522.50	842,522.50	
12/15/24	1,810,000.00	2.900000	842,522.50	2,652,522.50	3,495,045.00
6/15/25			816,277.50	816,277.50	
12/15/25	1,865,000.00	2.900000	816,277.50	2,681,277.50	3,497,555.00
6/15/26			789,235.00	789,235.00	
12/15/26	1,920,000.00	2.900000	789,235.00	2,709,235.00	3,498,470.00
6/15/27			761,395.00	761,395.00	
12/15/27	1,975,000.00	2.900000	761,395.00	2,736,395.00	3,497,790.00
6/15/28			732,757.50	732,757.50	
12/15/28	2,030,000.00	2.900000	732,757.50	2,762,757.50	3,495,515.00
6/15/29			703,322.50	703,322.50	
12/15/29	2,090,000.00	2.900000	703,322.50	2,793,322.50	3,496,645.00
6/15/30			673,017.50	673,017.50	
12/15/30	2,150,000.00	2.900000	673,017.50	2,823,017.50	3,496,035.00
6/15/31			641,842.50	641,842.50	
12/15/31	2,215,000.00	2.900000	641,842.50	2,856,842.50	3,498,685.00
6/15/32			609,725.00	609,725.00	
12/15/32	2,275,000.00	2.900000	609,725.00	2,884,725.00	3,494,450.00
6/15/33			576,737.50	576,737.50	
12/15/33	2,345,000.00	2.900000	576,737.50	2,921,737.50	3,498,475.00
6/15/34			542,735.00	542,735.00	
12/15/34	2,410,000.00	2.900000	542,735.00	2,952,735.00	3,495,470.00
6/15/35			507,790.00	507,790.00	
12/15/35	2,480,000.00	2.900000	507,790.00	2,987,790.00	3,495,580.00
6/15/36			471,830.00	471,830.00	
12/15/36	2,555,000.00	2.900000	471,830.00	3,026,830.00	3,498,660.00
6/15/37			434,782.50	434,782.50	
12/15/37	2,625,000.00	2.900000	434,782.50	3,059,782.50	3,494,565.00
6/15/38			396,720.00	396,720.00	
12/15/38	2,705,000.00	2.900000	396,720.00	3,101,720.00	3,498,440.00
6/15/39			357,497.50	357,497.50	
12/15/39	2,780,000.00	2.900000	357,497.50	3,137,497.50	3,494,995.00
6/15/40			317,187.50	317,187.50	
12/15/40	2,865,000.00	2.900000	317,187.50	3,182,187.50	3,499,375.00
6/15/41			275,645.00	275,645.00	
12/15/41	2,945,000.00	2.900000	275,645.00	3,220,645.00	3,496,290.00
6/15/42			232,942.50	232,942.50	

NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
 SENIOR LIEN REVENUE BONDS, SERIES 2016  
 SECOND SOURCE TRANSMISSION LINE PHASE I PROJECT No. 51021

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Debt Service Schedule
   
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Date	Principal	Coupon	Interest	Period Total	Fiscal Total
12/15/42	3,030,000.00	2.900000	232,942.50	3,262,942.50	3,495,885.00
6/15/43			189,007.50	189,007.50	
12/15/43	3,120,000.00	2.900000	189,007.50	3,309,007.50	3,498,015.00
6/15/44			143,767.50	143,767.50	
12/15/44	3,210,000.00	2.900000	143,767.50	3,353,767.50	3,497,535.00
6/15/45			97,222.50	97,222.50	
12/15/45	3,305,000.00	2.900000	97,222.50	3,402,222.50	3,499,445.00
6/15/46			49,300.00	49,300.00	
12/15/46	3,400,000.00	2.900000	49,300.00	3,449,300.00	3,498,600.00
	67,950,000.00		35,594,672.50	103,544,672.50	
ACCRUED					
	67,950,000.00		35,594,672.50	103,544,672.50	
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Dated 11/15/16 with Delivery of 11/15/16  
 Bond Years 1,227,402.500  
 Average Coupon 2.900000  
 Average Life 18.063319  
 N I C % 2.900000 % Using 100.0000000

Weighted Bond Years 1,227,402.500  
 Weighted Average Life 18.063319  
 Weighted N I C % 2.900000 % Using 100.0000000  
 T I C % 2.899850 % From Delivery Date

Micro-Muni Debt Date: 04-15-2016 @ 10:05:03 Filename: NHCRWA Key: 16SSLPH1

NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
 SENIOR LIEN REVENUE BONDS, SERIES 2016  
 2025 DISTRIBUTION SYSTEM-249 PUMPING STATION PROJECT No.51004

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Debt Service Schedule

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Date	Principal	Coupon	Interest	Period Total	Fiscal Total
6/15/17			235,649.17	235,649.17	
12/15/17			201,985.00	201,985.00	437,634.17
6/15/18			201,985.00	201,985.00	
12/15/18	315,000.00	2.900000	201,985.00	516,985.00	718,970.00
6/15/19			197,417.50	197,417.50	
12/15/19	320,000.00	2.900000	197,417.50	517,417.50	714,835.00
6/15/20			192,777.50	192,777.50	
12/15/20	330,000.00	2.900000	192,777.50	522,777.50	715,555.00
6/15/21			187,992.50	187,992.50	
12/15/21	340,000.00	2.900000	187,992.50	527,992.50	715,985.00
6/15/22			183,062.50	183,062.50	
12/15/22	350,000.00	2.900000	183,062.50	533,062.50	716,125.00
6/15/23			177,987.50	177,987.50	
12/15/23	360,000.00	2.900000	177,987.50	537,987.50	715,975.00
6/15/24			172,767.50	172,767.50	
12/15/24	370,000.00	2.900000	172,767.50	542,767.50	715,535.00
6/15/25			167,402.50	167,402.50	
12/15/25	385,000.00	2.900000	167,402.50	552,402.50	719,805.00
6/15/26			161,820.00	161,820.00	
12/15/26	395,000.00	2.900000	161,820.00	556,820.00	718,640.00
6/15/27			156,092.50	156,092.50	
12/15/27	405,000.00	2.900000	156,092.50	561,092.50	717,185.00
6/15/28			150,220.00	150,220.00	
12/15/28	415,000.00	2.900000	150,220.00	565,220.00	715,440.00
6/15/29			144,202.50	144,202.50	
12/15/29	430,000.00	2.900000	144,202.50	574,202.50	718,405.00
6/15/30			137,967.50	137,967.50	
12/15/30	440,000.00	2.900000	137,967.50	577,967.50	715,935.00
6/15/31			131,587.50	131,587.50	
12/15/31	455,000.00	2.900000	131,587.50	586,587.50	718,175.00
6/15/32			124,990.00	124,990.00	
12/15/32	465,000.00	2.900000	124,990.00	589,990.00	714,980.00
6/15/33			118,247.50	118,247.50	
12/15/33	480,000.00	2.900000	118,247.50	598,247.50	716,495.00
6/15/34			111,287.50	111,287.50	
12/15/34	495,000.00	2.900000	111,287.50	606,287.50	717,575.00
6/15/35			104,110.00	104,110.00	
12/15/35	510,000.00	2.900000	104,110.00	614,110.00	718,220.00
6/15/36			96,715.00	96,715.00	
12/15/36	525,000.00	2.900000	96,715.00	621,715.00	718,430.00
6/15/37			89,102.50	89,102.50	
12/15/37	540,000.00	2.900000	89,102.50	629,102.50	718,205.00
6/15/38			81,272.50	81,272.50	
12/15/38	555,000.00	2.900000	81,272.50	636,272.50	717,545.00
6/15/39			73,225.00	73,225.00	
12/15/39	570,000.00	2.900000	73,225.00	643,225.00	716,450.00
6/15/40			64,960.00	64,960.00	
12/15/40	585,000.00	2.900000	64,960.00	649,960.00	714,920.00
6/15/41			56,477.50	56,477.50	
12/15/41	605,000.00	2.900000	56,477.50	661,477.50	717,955.00
6/15/42			47,705.00	47,705.00	

NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
 SENIOR LIEN REVENUE BONDS, SERIES 2016  
 2025 DISTRIBUTION SYSTEM-249 PUMPING STATION PROJECT No.51004

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Debt Service Schedule

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Date	Principal	Coupon	Interest	Period Total	Fiscal Total
12/15/42	620,000.00	2.900000	47,705.00	667,705.00	715,410.00
6/15/43			38,715.00	38,715.00	
12/15/43	640,000.00	2.900000	38,715.00	678,715.00	717,430.00
6/15/44			29,435.00	29,435.00	
12/15/44	660,000.00	2.900000	29,435.00	689,435.00	718,870.00
6/15/45			19,865.00	19,865.00	
12/15/45	675,000.00	2.900000	19,865.00	694,865.00	714,730.00
6/15/46			10,077.50	10,077.50	
12/15/46	695,000.00	2.900000	10,077.50	705,077.50	715,155.00
-----					
	13,930,000.00		7,296,569.17	21,226,569.17	
ACCRUED					
	13,930,000.00		7,296,569.17	21,226,569.17	
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Dated 11/15/16 with Delivery of 11/15/16  
 Bond Years 251,605.833  
 Average Coupon 2.900000  
 Average Life 18.062156  
 N I C % 2.900000 % Using 100.0000000

Weighted Bond Years 251,605.833  
 Weighted Average Life 18.062156  
 Weighted N I C % 2.900000 % Using 100.0000000  
 T I C % 2.899850 % From Delivery Date

Micro-Muni Debt Date: 04-15-2016 @ 10:11:39 Filename: NHCRWA Key: 16249PMP

**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**

**Projected Debt Service With 2015-2021 TWDB Swift Bond Financings and Projected Future Financing**

5/9/2016  
 OutlineForSwiftBond2015-2021

Year	Existing Debt Service	\$113,170,000 Series 2016 (a)	\$67,970,000 Series 2016 (b)	\$13,930,000 Series 2016 (c)	\$48,600,000 Series 2016 CIP	\$388,565,000 Series 2017 (d)	\$379,950,000 Series 2018 (d)	\$170,000,000 Series 2019 GRP	\$80,470,000 Series 2019 (d)	\$100,000,000 Series 2020 GRP	\$36,700,000 Series 2020 (d)	\$100,000,000 Series 2021 GRP	\$17,910,000 Series 2021 (d)	\$100,000,000 Series 2022 GRP	TOTAL BONDED DEBT SERVICE
2015	\$30,826,973					\$3,011,379	\$2,944,613	\$7,650,000	\$623,643	\$4,500,000	\$284,425	\$4,500,000	\$1,38,803	\$100,000,000	\$30,826,973
2016	\$32,722,899		\$2,134,762	\$437,634	\$1,701,000	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$32,722,899
2017	\$34,726,395	\$3,555,424	\$3,495,550	\$718,970	\$1,701,000	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$45,566,594
2018	\$34,732,935	\$5,821,930	\$3,496,325	\$714,835	\$1,701,000	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$69,496,407
2019	\$34,742,126	\$5,822,435	\$3,496,795	\$715,555	\$1,701,000	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$94,468,787
2020	\$34,749,680	\$5,822,435	\$3,496,960	\$715,555	\$1,701,000	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$102,795,244
2021	\$34,748,497	\$5,824,095	\$3,495,675	\$716,125	\$2,948,758	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$110,298,473
2022	\$34,765,194	\$5,824,095	\$3,495,675	\$715,975	\$2,948,758	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$115,598,498
2023	\$34,756,059	\$5,821,445	\$3,496,085	\$715,975	\$2,948,758	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$115,586,973
2024	\$34,764,868	\$5,821,475	\$3,495,045	\$715,535	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$119,408,967
2025	\$34,777,619	\$5,824,040	\$3,497,555	\$719,805	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$121,674,966
2026	\$34,793,292	\$5,823,995	\$3,498,470	\$718,640	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$123,934,247
2027	\$34,794,182	\$5,826,340	\$3,497,790	\$717,185	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,169,250
2028	\$34,789,025	\$5,825,930	\$3,495,515	\$715,440	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,169,663
2029	\$34,794,945	\$5,822,765	\$3,496,645	\$718,405	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,176,513
2030	\$34,803,762	\$5,821,845	\$3,496,035	\$715,935	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,181,330
2031	\$34,807,380	\$5,823,025	\$3,498,685	\$718,175	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,191,018
2032	\$34,816,004	\$5,826,160	\$3,494,450	\$714,980	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,195,347
2033	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2034	\$26,772,720	\$5,822,860	\$3,495,470	\$717,575	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$118,152,378
2035	\$26,778,370	\$5,826,425	\$3,495,220	\$718,220	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$118,162,368
2036	\$21,229,611	\$5,821,510	\$3,498,660	\$718,430	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$112,611,964
2037	\$21,226,061	\$5,823,260	\$3,494,565	\$718,205	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$112,605,844
2038	\$21,231,982	\$5,826,385	\$3,498,440	\$717,545	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$112,618,105
2039	\$4,154,756	\$5,825,740	\$3,494,995	\$716,450	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$95,535,694
2040	\$4,155,704	\$5,826,325	\$3,499,375	\$714,920	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$95,540,077
2041	\$4,158,376	\$5,822,995	\$3,496,290	\$717,955	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$95,539,369
2042	\$4,159,776	\$5,825,750	\$3,495,885	\$715,410	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$95,540,574
2043	\$4,172,496	\$5,824,300	\$3,498,015	\$717,430	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$95,555,994
2044	\$4,170,676	\$5,823,645	\$3,497,535	\$718,870	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$95,554,479
2045	\$4,180,005	\$5,823,640	\$3,499,445	\$714,730	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$95,561,573
2046						\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$88,432,889
2047						\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$58,313,585
2048						\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$38,677,406
2049						\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$23,054,005
2050						\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$14,413,411
2051						\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$6,743,903
<b>Total</b>	\$801,116,282	\$172,451,679	\$103,544,672	\$21,226,569	\$80,522,953	\$585,372,261	\$572,393,784	\$324,865,869	\$121,227,866	\$191,097,570	\$55,288,464	\$191,097,570	\$26,981,373	\$191,097,570	\$3,438,284,482

a) Reflects 2016 Bonds for Northeast Plant Expansion, Second Source Line, Initial Phase 2025 Transmission System, and Initial Phase 2025 Distribution System approved by TWDB in 2015.

b) Reflects 2016 Bonds for Second Source Line Phase 1 included in the NHCRA's 2016 Abridged Application.

c) Reflects 2016 Bonds for the 2025 Distribution System - 249 Pumping Station project included in the NHCRA's 2016 Abridged Application.

d) Reflects TWDB Bonds to be issued in 2017, 2018, 2019, 2020, and 2021 respectively. See schedule entitled TWDB SWIFT Bonds plus CIP Bonds and GRP Bonds by year.



NORTHERN CALIFORNIA REGIONAL WATER AUTHORITY  
ANNUAL 2019 WATER BUDGET EXPENDITURES

Table with columns for fiscal years from 2017 to 2028. Rows include: Water Rates, Main Water Fee, Customer Payoff Fee, Operation Fee, Capital/Replacement Fee, and Total Available for Water Supply. Each row contains numerical values for each year.

Table with columns for fiscal years from 2017 to 2028. Rows include: Regional Water, Utility Services, Water Treatment Plant, Water Distribution, and Other. Each row contains numerical values for each year.

Notes: (1) The 2028 figures are based on the forecasted 2028 population of 1,200,000. (2) The 2028 figures are based on the forecasted 2028 population of 1,200,000. (3) The 2028 figures are based on the forecasted 2028 population of 1,200,000.

*North Harris County Regional Water Authority  
Statements of Revenues, Expenses and Changes in Net Position*

	2015	2014	2013	2012	2011*
<b>Operating revenues</b>					
Charges for services					
Water fees	\$ 64,140,149	\$ 61,515,182	\$ 60,740,812	\$ 60,152,123	\$ 70,226,030
Contract water sales					
Other		9,222	577,899	136,950	104,698
Total operating revenues	<u>64,140,149</u>	<u>61,524,404</u>	<u>61,318,711</u>	<u>60,289,073</u>	<u>70,330,728</u>
<b>Operating expenses</b>					
Personnel	1,207,688	1,169,724	1,059,994	933,712	987,474
Professional fees	2,158,456	2,974,142	2,455,736	2,102,078	1,933,526
Purchased water	13,725,609	15,395,630	14,199,064	9,927,829	11,638,515
Contracted services	1,988,524	1,781,621	2,248,027	1,747,842	1,471,900
Occupancy and office	1,144,273	1,125,340	1,245,621	1,133,823	1,348,385
Other	845,804	867,159	877,100	788,613	738,853
Depreciation and amortization	7,637,169	8,509,077	7,947,351	8,241,929	7,161,736
Total operating expenses	<u>28,707,523</u>	<u>31,822,693</u>	<u>30,032,893</u>	<u>24,875,826</u>	<u>25,280,389</u>
<b>Net operating income</b>	35,432,626	29,701,711	31,285,818	35,413,247	45,050,339
<b>Non-operating revenues (expenses)</b>					
Interest and fees	(23,556,884)	(24,986,695)	(25,013,780)	(27,689,280)	(26,371,708)
Investment income	804,686	898,369	762,758	979,199	635,357
Bond issuance costs	(721,530)	(322,616)	(903,956)		
Chloramination conversion reimbursements				(1,178,612)	(20,089,217)
<b>Net non-operating revenues (expenses)</b>	<u>(23,473,728)</u>	<u>(24,410,942)</u>	<u>(25,154,978)</u>	<u>(27,888,693)</u>	<u>(45,825,568)</u>
<b>Change in net position</b>	11,958,898	5,290,769	6,130,840	7,524,554	(775,229)
Total net position - beginning	68,756,138	63,465,369	57,334,529	49,809,975	50,585,204
<b>Total net position - ending</b>	<u>\$ 80,715,036</u>	<u>\$ 68,756,138</u>	<u>\$ 63,465,369</u>	<u>\$ 57,334,529</u>	<u>\$ 49,809,975</u>

\*Amounts for Depreciation and amortization, Interest and fees and Total net position - beginning were restated as a result of the implementation of GASB 65 in FY2012.



# North Harris County Regional Water Authority

## Statement of Revenues and Expenditures

From 1/1/2016 Through 3/31/2016

	Current Period Actual	Current Year Actual
<b>Receipts</b>		
Pumpage Fees		
Cost of Water Revenue	10,640,259.71	10,640,259.71
Total Pumpage Fees	10,640,259.71	10,640,259.71
Interest Earned		
Interest Earned	98,556.20	98,556.20
Interest Income - RBC	203,087.35	203,087.35
Unrealized (Gain)/Loss on Investments	320,272.25	320,272.25
Realized (Gain)/Loss on Investments	0.03	0.03
Total Interest Earned	621,915.83	621,915.83
Total Receipts	11,262,175.54	11,262,175.54
<b>Disbursements &amp; Expenses</b>		
Engineering Services		
Acquisition Services	14,270.85	14,270.85
Engineering Services	912,716.98	912,716.98
Construction Expense	176,371.83	176,371.83
Total Engineering Services	1,103,359.66	1,103,359.66
Legal Services		
Legal - General Counsel Services	34,500.00	34,500.00
Legal - Misc. Expenses	1,210.35	1,210.35
Legal - VRA Submission/Director Election	116.25	116.25
Legal - Contract Negotiations	10,023.05	10,023.05
Legal - Capital Contribution Matters	2,541.25	2,541.25
Total Legal Services	48,390.90	48,390.90
Operations & Maintenance		
Operations & Maintenance Services	374,496.09	374,496.09
Total Operations & Maintenance	374,496.09	374,496.09
Water Purchase		
Bulk Water Purchase	3,799,338.92	3,799,338.92
Total Water Purchase	3,799,338.92	3,799,338.92
Legislative Services		
Legislative Consultant	32,499.99	32,499.99
Total Legislative Services	32,499.99	32,499.99
Communications Services		
Communication Consultant	18,000.00	18,000.00
Printing	96,514.99	96,514.99
Postage	35,081.06	35,081.06
Water Conservation	3,375.76	3,375.76
WBIMS	11,596.00	11,596.00
Total Communications Services	164,567.81	164,567.81
Professional Services		
Director Fees	6,000.00	6,000.00
Salaries, Wages & Benefits	234,391.28	234,391.28
Retirement	30,620.77	30,620.77
Group Insurance	27,647.94	27,647.94
Social Security	14,904.27	14,904.27
Medicare	3,485.69	3,485.69
Unemployment Compensation	1,291.55	1,291.55
Bank Charges	1,447.70	1,447.70
Travel/Hotel&Meals	8,764.45	8,764.45
Mileage Reimbursements	718.74	718.74
Seminars/Training	3,850.00	3,850.00
Total Professional Services	333,122.39	333,122.39
Office Expenses		
Maintenance & Repairs	230.00	230.00
Office Supplies	4,191.77	4,191.77
Postage/delivery	1,271.62	1,271.62

# North Harris County Regional Water Authority

## Statement of Revenues and Expenditures

From 1/1/2016 Through 3/31/2016

	<u>Current Period Actual</u>	<u>Current Year Actual</u>
Telephone/Long Distance	11,251.61	11,251.61
Utilities	135,687.33	135,687.33
Equipment Leases	3,833.86	3,833.86
Office Lease	39,654.48	39,654.48
Security	207.50	207.50
Cellular Telephone	784.60	784.60
Memberships/Subscriptions	7,802.90	7,802.90
DSL Line/Internet Service	13,969.35	13,969.35
Computer Services	1,750.00	1,750.00
Computer Maintenance	<u>8,250.00</u>	<u>8,250.00</u>
Total Office Expenses	228,885.02	228,885.02
Misc. Expenses		
Insurance - Liability & Bonds	<u>(171.00)</u>	<u>(171.00)</u>
Total Misc. Expenses	(171.00)	(171.00)
Interest Expenses		
Cost of Issuance	<u>500.00</u>	<u>500.00</u>
Total Interest Expenses	<u>500.00</u>	<u>500.00</u>
Total Disbursements & Expenses	<u>6,084,989.78</u>	<u>6,084,989.78</u>
Excess Revenues Over (Under) Expenditures	<u>5,177,185.76</u>	<u>5,177,185.76</u>



**FINANCIAL STATEMENTS**

**December 31, 2015 and  
December 31, 2014**



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**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
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## **Independent Auditors' Report**

Board of Directors  
North Harris County Regional Water Authority  
Harris County, Texas

We have audited the accompanying financial statements of the business type activities of North Harris County Regional Water Authority (the "Authority"), as of December 31, 2015 and December 31, 2014, which collectively comprise the Authority's basic financial statements as listed in the table of contents, and the related notes to the financial statements.

### ***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### ***Auditor's Responsibility***

Our responsibility is to express opinions on these basic financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the basic financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting principles used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

***Board of Directors  
North Harris County Regional Water Authority  
Harris County, Texas***

We believe that the audit evidence we have obtained is sufficient to provide a basis for our audit opinion.

***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business type activities of the Authority, as of December 31, 2015 and 2014, and the respective changes in financial position and cash flows thereof for the years then ended in conformity with accounting principles generally accepted in the United States of America.

***Other-Matters***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Authority's financial statements as a whole. The supplementary information is presented for purposes of additional analysis and is not a required part of the basic financial statements. The supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied to the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements taken as a whole.

*McGuire & Co, P.C.*

Houston, Texas  
May 2, 2016



## Management's Discussion and Analysis

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***North Harris County Regional Water Authority  
Management's Discussion and Analysis  
December 31, 2015***

**Using this Annual Report**

Within this section of the financial report of the North Harris County Regional Water Authority (the "Authority"), the Authority's Management provides narrative discussion and analysis of the financial activities of the Authority, for the fiscal years ended December 31, 2015 and 2014. This analysis should be read in conjunction with the basic financial statements that follow this section.

In addition to this discussion and analysis, this annual report consists of:

- The Authority's basic financial statements;
- Notes to the basic financial statements; and
- Additional supplementary information

**Overview of the Financial Statements**

This discussion and analysis is intended to serve as an introduction to the Authority's basic financial statements, which are comprised of the following: 1) *Statement of Net Position*, 2) *Statement of Revenues, Expenses and Changes in Net Position*, and the 3) *Statement of Cash Flows*. This report also contains supplementary information in addition to the basic financial statements themselves.

The *Statement of Net Position* presents information on all of the Authority's assets, deferred outflows of resources, liabilities, deferred inflows of resources and net position. Over time, increases or decreases in net position may serve as a useful indicator of changes in the financial position of the Authority.

The *Statement of Revenues, Expenses and Changes in Net Position* presents information showing how the Authority's net position has changed during the fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the related cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future fiscal periods (e.g., earned but unused vacation leave).

The *Statement of Cash Flows* presents information on the Authority's cash inflows and outflows during the fiscal year. Cash flows are categorized as operating activities; capital and related financing activities and investing activities. This statement includes a reconciliation of cash provided by the Authority's operating activities to operating income as reported on the *Statement of Revenues, Expenses and Changes in Net Position*.

The notes to the basic financial statements provide additional information that is essential to a full understanding of the data provided in the basic financial statements.

**Financial Analysis of the Authority**

On the *Statement of Net Position*, assets plus deferred outflows of resources, less liabilities, less deferred inflows of resources is called net position. The Authority's net position at December 31, 2015 and 2014, was \$80,715,036 and \$68,756,138 respectively. Net position is displayed in three categories. The net investment in capital assets component represents the Authority's investments in capital assets, less any outstanding debt or other borrowings used to acquire those assets. Resources needed to repay this debt

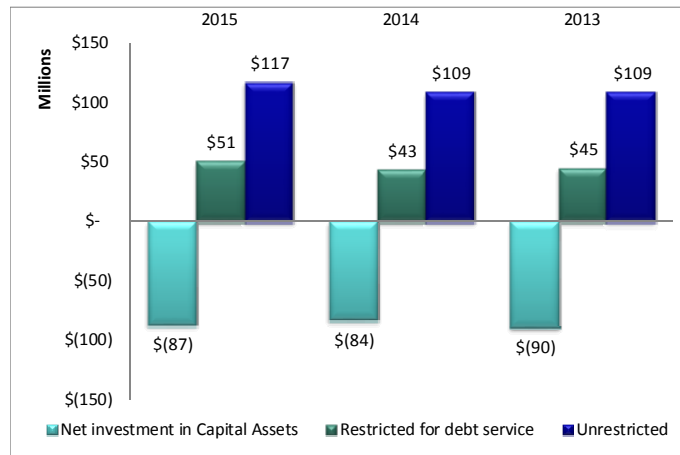
**North Harris County Regional Water Authority  
Management's Discussion and Analysis  
December 31, 2015**

must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities. The restricted component of net position consists of financial resources that are restricted for future debt service requirements net of any liabilities related to those resources. The unrestricted component of net position consists of net assets that do not meet the definition of either of the other two components.

The Authority's overall financial position at December 31, 2015 as compared to the two prior years is summarized as follows:

	2015	2014	2013
Current and other assets	\$ 318,245,532	\$ 242,689,024	\$ 251,680,183
Capital assets	360,615,424	352,195,825	351,593,859
Total assets	<u>678,860,956</u>	<u>594,884,849</u>	<u>603,274,042</u>
Deferred difference on refunding	<u>1,861,054</u>	<u>1,977,965</u>	<u>4,771,534</u>
Current liabilities	17,812,528	17,518,702	16,754,143
Long term liabilities	582,194,446	510,587,974	527,826,064
Total liabilities	<u>600,006,974</u>	<u>528,106,676</u>	<u>544,580,207</u>
Net Position			
Net investment in capital assets	(87,345,670)	(83,532,022)	(89,901,331)
Restricted for debt service	50,574,270	43,446,162	44,595,910
Unrestricted	<u>117,486,436</u>	<u>108,841,998</u>	<u>108,770,790</u>
Total net position	<u>\$ 80,715,036</u>	<u>\$ 68,756,138</u>	<u>\$ 63,465,369</u>

The chart below illustrates the composition of the Authority's net position for the past three years:



**North Harris County Regional Water Authority  
Management's Discussion and Analysis  
December 31, 2015**

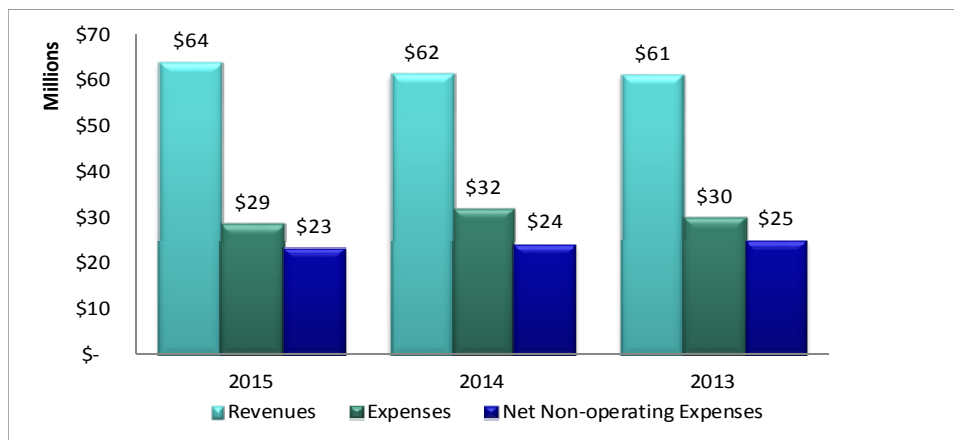
A summarized comparison of the Authority's operations for the year ended December 31, 2015 with the previous two years is as follows:

	2015	2014	2013
Operating revenues	\$ 64,140,149	\$ 61,524,404	\$ 61,318,711
Operating expenses	(28,707,523)	(31,822,693)	(30,032,893)
Net operating income	35,432,626	29,701,711	31,285,818
Net non-operating revenue (expense)	(23,473,728)	(24,410,942)	(25,154,978)
Change in net position	11,958,898	5,290,769	6,130,840
Net position, beginning of year	68,756,138	63,465,369	57,334,529
Net position, end of year	<u>\$ 80,715,036</u>	<u>\$ 68,756,138</u>	<u>\$ 63,465,369</u>

Non-operating revenues and non-operating expenses consist of interest income from the Authority's investments, interest expense from the Authority's debt and issuance costs for the Series 2015 Bonds.

The increase in net position for each year was the result of revenues exceeding normal expenses, which is consistent with the Authority's financial planning and budgeting and is used to satisfy bond covenants and debt service requirements.

The chart below illustrates the Authority's operating revenues, operating expenses and net non-operating expenses for the past three years:



***North Harris County Regional Water Authority  
Management's Discussion and Analysis  
December 31, 2015***

**Capital Assets**

The Authority's capital assets primarily consist of land, construction in progress, infrastructure and the Authority's interest in treated water facilities and water transmission facilities. Capital assets at December 31, 2015, as compared to the two previous years are summarized as follows:

	<u>2015</u>	<u>2014</u>	<u>2013</u>
Capital assets not being depreciated			
Land and ROW acquisition	\$ 24,705,461	\$ 24,617,769	\$ 19,892,691
Construction in progress	<u>9,307,447</u>	<u>8,684,529</u>	<u>13,928,955</u>
Non-depreciable capital assets	<u>34,012,908</u>	<u>33,302,298</u>	<u>33,821,646</u>
Capital assets being depreciated or amortized			
Interest in treated water facilities	82,967,242	77,453,800	77,453,800
Interest in transmission facilities	29,902,714	23,037,070	23,037,070
Infrastructure	277,006,347	274,039,275	264,408,884
Furniture, computers & equipment	<u>221,526</u>	<u>221,526</u>	<u>221,526</u>
	<u>390,097,829</u>	<u>374,751,671</u>	<u>365,121,280</u>
Less accumulated depreciation and amortization			
Interest in treated water facilities	(20,044,938)	(19,052,430)	(17,048,966)
Interest in transmission facilities	(5,134,641)	(4,613,767)	(4,101,832)
Infrastructure	(38,094,205)	(31,971,130)	(25,986,573)
Furniture, computers & equipment	<u>(221,529)</u>	<u>(220,817)</u>	<u>(211,696)</u>
Total accumulated depreciation and amortization	<u>(63,495,313)</u>	<u>(55,858,144)</u>	<u>(47,349,067)</u>
Depreciable capital assets, net	<u>326,602,516</u>	<u>318,893,527</u>	<u>317,772,213</u>
Total capital assets, net	<u>\$ 360,615,424</u>	<u>\$ 352,195,825</u>	<u>\$ 351,593,859</u>

During the current year, the Authority had capital additions in the amount of \$15,346,158, which primarily consist of the following:

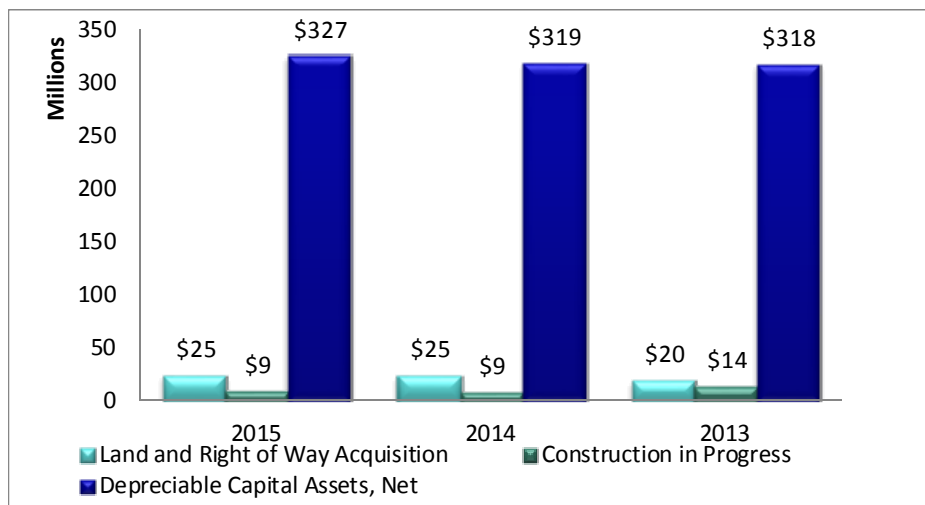
- Surface water connections at Charterwood MUD Water Plant No. 2, Harris County WCID 114 Water Plant No. 1, Klein PUD Water Plant No. 1 and Louetta North PUD Water Plant No. 1 (Project 100B)
- Surface water connections at Northwest Harris County MUD No. 24, Harris County MUD 104, Harris County Freshwater Supply District No. 52 and Candlelight Hills Subdivision (Project 100C)
- Surface water connection at Bilma PUD Water Plant No. 1 (Projects 100D)
- Surface water connections at Cy-Champ PUD Water Plant No. 2, Cypress Forest PUD Water Plant No. 2 and Northwest Harris County MUD No. 20 Water Plant (Project 100E)
- Supervisory Control and Data Acquisition (Project 101B)

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 Management's Discussion and Analysis  
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Projects that are not complete as of fiscal year end, along with related engineering fees, are recorded as construction in progress in the *Statement of Net Position*. Construction in progress includes the following projects:

- Texas State Highway 249 regional pump station (Project 24B)
- Booster pump capacity expansion and other improvements at the Spears Road Regional Pump Station (Project 2-5)

The chart below illustrates the composition of capital assets as of December 31 for the past three years:



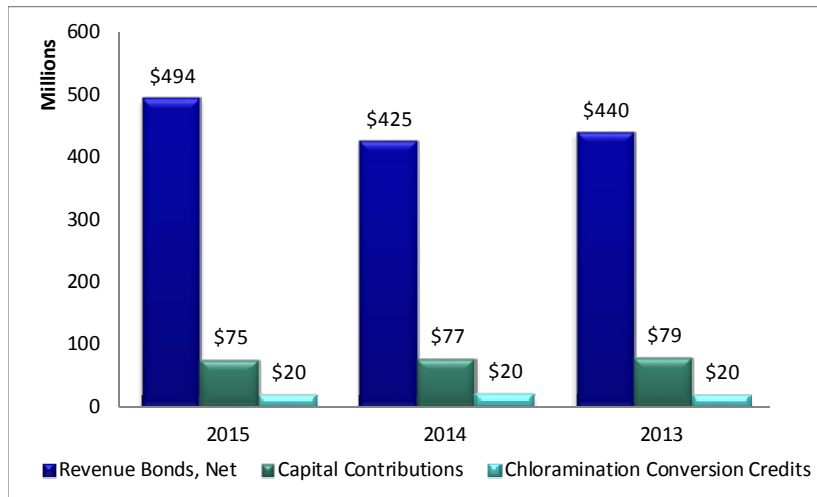
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**Long-Term Obligations**

During the year, the Authority issued \$80,435,000 in senior lien revenue bonds. The Authority's total long term obligations as of December 31, 2015, as compared to the previous two years is as follows:

	2015	2014	2013
Chloramination conversion credits payable	\$ 19,849,973	\$ 20,184,018	\$ 20,499,155
Capital contributions			
2003	27,624,852	28,554,534	29,439,461
2005	12,677,996	13,051,278	13,407,434
2008	34,430,443	35,182,853	35,896,880
	<u>74,733,291</u>	<u>76,788,665</u>	<u>78,743,775</u>
Revenue bonds			
Series 2005			86,060,000
Series 2008	223,575,000	228,630,000	233,470,000
Series 2013 - Refunding	99,155,000	102,780,000	106,320,000
Series 2014 - Refunding	70,485,000	72,510,000	
Series 2015	80,435,000		
Unamortized bond premium	22,351,189	23,558,854	16,325,419
Unamortized bond discount	(1,902,406)	(1,988,604)	(2,027,389)
	<u>494,098,783</u>	<u>425,490,250</u>	<u>440,148,030</u>
Accrued compensated absences	123,423	122,145	116,001
	<u>\$ 588,805,470</u>	<u>\$ 522,585,078</u>	<u>\$ 539,506,961</u>

The chart below illustrates the composition of the Authority's long term obligations as of December 31 for the last three years:





**North Harris County Regional Water Authority  
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The Authority's bonds are secured by a pledge on the Authority's net revenues (total revenues less operating and maintenance costs). As further discussed in Note 6, the Authority's master resolution requires that the Authority maintain balances in the following funds: (1) interest and sinking fund, (2) reserve fund, (3) coverage fund, (4) operation and maintenance fund and (5) improvement fund. The Authority has continued to comply with all of its bonds covenants and has maintained these funds at required levels. At the end of the fiscal year, the Authority transferred \$5,000,000 into the Improvement Fund.

**Next Year's Budget**

The Authority's 2016 budget as compared to actual results for 2015 is as follows:

	<u>2015 Actual</u>	<u>2016 Budget</u>
Operating revenues	\$ 64,140,149	\$ 60,059,290
Operating expenses	<u>(28,707,523)</u>	<u>(26,563,554)</u>
Net operating income	<u>35,432,626</u>	<u>33,495,736</u>
Non operating revenues (expenses)		
Interest expense	(23,556,884)	(23,489,584)
Interest and fees	804,686	500,000
Bond issuance costs	<u>(721,530)</u>	
Net non-operating expense	<u>(23,473,728)</u>	<u>(22,989,584)</u>
Change in net position	11,958,898	10,506,152
Beginning net position	<u>68,756,138</u>	<u>80,715,036</u>
Ending net position	<u>\$ 80,715,036</u>	<u>\$ 91,221,188</u>

Actual revenues for 2015 are higher than budgeted revenues for 2016 because the Authority takes a conservative approach to budgeting. The budget for 2016 assumes normal rainfall amounts. Expenses fluctuate proportionate with revenues.

**Economic Factors**

The Harris-Galveston Subsidence District (H-GSD) groundwater regulatory plan (the Plan) requirements mandated the construction of infrastructure in order to meet the 2010 conversion target of a thirty percent reduction in groundwater use, along with additional requirements in order to meet higher conversion target thresholds (which will take effect through the year 2035). The Authority's Groundwater Reduction Plan (GRP) was approved in 2003 and it defines how it will comply with H-GSD's requirements. The H-GSD updated its regulatory plan, which includes the extension of the conversion deadlines, in January 2013. As a result of the Plan changes, existing GRP's must incorporate the changes required under the Plan. The Authority submitted the updated GRP to the H-GSD on June 26, 2014 for recertification. The 2016-2017 CIP defines components of the plan detailed in the Authority's updated GRP.

Several disincentives were built into the H-GSD Regulatory Plan, including a \$7 per 1,000 gallons (groundwater pumped) "penalty" fee that would be triggered if: (1) the GRP was not submitted and

***North Harris County Regional Water Authority  
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certified according to the timeline; (2) construction had not begun on the surface water delivery infrastructure by 2005; and (3) the mandated groundwater pumpage reductions were not accomplished within the 2010, 2025 and 2035 timelines.

The Authority adopts a Capital Improvement Plan (CIP) each year to establish a guide to planning and defining the infrastructure needed to meet the H-GSD targets and determine how the infrastructure improvements will be financed.

The 2016-2017 CIP has been developed using the best, currently available information about the scope of each project along with cost information from a variety of sources, including cost experience from the Authority's projects completed to date. While the Authority's body of empirical cost data is expanding, especially in terms of water lines, the cost base is still evolving in several areas. Accordingly, the following points are offered to help keep the implementation of the 2016-2017 CIP in perspective:

- It is possible that conditions would evolve on a project that could materially impact the cost of the project
- Real estate and construction costs can be and are influenced by variables over which the Authority has no control
- It is common to experience unexpected costs in the implementation of a CIP. Provision of a contingency is the most practical way to attempt to address this issue

Significant activities addressed in the 2016-2017 CIP Plan are:

- Continue evaluation of the need for additional water wells and enhancements to the 2010 system to take necessary efforts to optimize use of the system
- Provide infrastructure to areas adjacent to the 2010 service area to enable continued compliance with H-GSD mandates
- Continue the planning and design and initiate construction of the 2025 distribution system
- Finalize the alignment of the portion of the 2025 transmission line, which lies generally north of Beltway 8 from just west of IH 45 to just west of State Highway 249, initiate securing the necessary easements and design
- Initiate design of the initial phase of the State Hwy. 249 Regional Pump Station
- Identify and purchase the site for the 2025 regional pump station and 2035 regional water plant
- Provide initial funding for the Authority's share of the major expansion of the Northeast Water Purification Plant (the "NEWPP")
- Provide funding for the Authority's share of the cost of Major Rehabilitation, reconstruction and upgrading of the existing NEWPP
- Provide funding for the Authority's share of the cost for acquisition of real estate and the design of the proposed joint transmission line from the NEWPP site to the Authority's proposed 2025 transmission line
- Pay the Authority's portion of the initial loan costs for the Luce Bayou Interbasin Diversion Project
- Provide funding for the Chloramination Credit

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- Provide funding to help encourage and facilitate implementation of reuse systems
- Provide professional services to perform the wide variety of activities required to implement the 2016-2017 CIP

The proceeds from the Authority's Series 2003, 2005 and 2008 Senior Lien Revenue Bonds, capital contributions and interest earned (collectively called "Revenue Bonds") total approximately \$437 million. As illustrated by the table that follows, approximately \$44 million of those Revenue Bonds will be used to implement the 2016-2017 CIP. Additionally, approximately \$369 million of Texas Water Development Board State Water Infrastructure Fund for Texas ("SWIFT") funds are committed to implement the 2016-2017 CIP. The remaining approximately \$103 million of the near \$516 million needed to implement the 2016-2017 CIP will be funded through sources to be determined, i.e. bonds, capital contributions, etc.

Category	Authorizations (Thousands)		Fiscal Year Planned		Project Total
	1/1/03-9/30/15	10/1/14-12/31/15	2016	2017	
Acquisition	\$ 29,302	\$ -	\$ 13,681	\$ 8,819	\$ 51,802
Design	60,329	2,683	19,120	12,208	94,340
Construction	242,880		36,127	44,735	323,742
Equipment					
Other	64,522	9,965	113,202	255,442	443,131
Total Authorizations	<u>\$ 397,033</u>	<u>\$ 12,648</u>	<u>\$ 182,130</u>	<u>\$ 321,204</u>	<u>\$ 913,015</u>
Source of Funds					
Revenue Bonds	\$ 392,845	\$ 6,863	\$ 32,095	\$ 5,120	\$ 436,923
SWIFT Funds	4,188	5,785	131,597	231,355	372,925
Future BANS/Bonds			18,438	84,729	103,167
Total Funds	<u>\$ 397,033</u>	<u>\$ 12,648</u>	<u>\$ 182,130</u>	<u>\$ 321,204</u>	<u>\$ 913,015</u>

Through September 2015, approximately 91 percent of the Revenue Bonds earmarked for the implementation of the CIP have been authorized (encumbered). The 2016-2017 CIP schedules the remainder of those funds to be authorized by the end of 2017.

**Request for Information**

This financial report is designed to provide a general overview of the Authority's finances. Questions concerning any information provided in this report or requests for additional information should be addressed to the Financial Assistant, North Harris County Regional Water Authority, 3648 Cypress Creek Parkway, Suite 110, Houston, Texas 77068.

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## **Basic Financial Statements**

*North Harris County Regional Water Authority  
Statements of Net Position  
December 31, 2015 and 2014*

	<u>2015</u>	<u>2014</u>
<b>Assets</b>		
<b>Current assets</b>		
Cash and cash equivalents	\$ 53,775,815	\$ 44,970,413
Investments	77,753,537	79,518,751
Accounts receivable	5,760,250	5,245,236
Accrued interest receivable	247,641	230,773
Prepaid expenses, net	34,627	23,637
Other receivables	10,049	10,049
Due from other governments	241,199	
Total current assets	<u>137,823,118</u>	<u>129,998,859</u>
<b>Noncurrent assets</b>		
Restricted cash and cash equivalents	104,000,267	30,918,854
Restricted investments	75,696,274	81,448,625
Water conservation credits	725,873	322,686
Capital assets not being depreciated	34,012,908	33,302,298
Capital assets, net	326,602,516	318,893,527
Total noncurrent assets	<u>541,037,838</u>	<u>464,885,990</u>
<b>Total assets</b>	<u>678,860,956</u>	<u>594,884,849</u>
<b>Deferred Outflows of Resources</b>		
Deferred difference on refunding	<u>1,861,054</u>	<u>1,977,965</u>
<b>Liabilities</b>		
<b>Current liabilities</b>		
Accounts payable	2,937,646	2,415,614
Other payables	12,567	348
Due to other governments		735,387
Interest payable on bonds	962,422	1,272,919
Current portion of long term liabilities		
Chloramine conversion credits payable	354,088	334,045
Capital contributions	2,160,805	2,055,389
Bonds payable	11,385,000	10,705,000
Total current liabilities	<u>17,812,528</u>	<u>17,518,702</u>
<b>Noncurrent liabilities</b>		
Accounts payable from restricted assets	7,282,543	1,060,442
Retainage payable from restricted assets	6,326	36,888
Accrued compensated absences	123,423	122,145
Long term liabilities due in more than one year		
Chloramine conversion credits payable	19,495,885	19,849,973
Capital contributions	72,572,486	74,733,276
Bonds payable (net of unamortized bond premium and discount)	482,713,783	414,785,250
Total noncurrent liabilities	<u>582,194,446</u>	<u>510,587,974</u>
<b>Total liabilities</b>	<u>600,006,974</u>	<u>528,106,676</u>
<b>Net Position</b>		
Net investment in capital assets	(87,345,670)	(83,532,022)
Restricted for debt service	50,574,270	43,446,162
Unrestricted	117,486,436	108,841,998
<b>Total net position</b>	<u>\$ 80,715,036</u>	<u>\$ 68,756,138</u>

See Notes to Financial Statements.

*North Harris County Regional Water Authority  
Statements of Revenues, Expenses and Changes in Net Position  
For the Years Ended December 31, 2015 and 2014*

	<u>2015</u>	<u>2014</u>
<b>Operating revenues</b>		
Charges for services		
Water fees	\$ 64,140,149	\$ 61,515,182
Other		9,222
Total operating revenues	<u>64,140,149</u>	<u>61,524,404</u>
<b>Operating expenses</b>		
Personnel	1,207,688	1,169,724
Professional fees	2,158,456	2,974,142
Purchased water	13,725,609	15,395,630
Contracted services	1,988,524	1,781,621
Occupancy and office	1,144,273	1,125,340
Other	845,804	867,159
Depreciation and amortization	7,637,169	8,509,077
Total operating expenses	<u>28,707,523</u>	<u>31,822,693</u>
<b>Net operating income</b>	35,432,626	29,701,711
<b>Non-operating revenues (expenses)</b>		
Interest and fees	(23,556,884)	(24,986,695)
Investment income	804,686	898,369
Bond issuance costs	(721,530)	(322,616)
<b>Net non-operating revenues (expenses)</b>	<u>(23,473,728)</u>	<u>(24,410,942)</u>
<b>Change in net position</b>	11,958,898	5,290,769
Total net position - beginning	68,756,138	63,465,369
<b>Total net position - ending</b>	<u>\$ 80,715,036</u>	<u>\$ 68,756,138</u>

See Notes to Financial Statements.

*North Harris County Regional Water Authority  
Statements of Cash Flows  
For the Years Ended December 31, 2015 and 2014*

	<u>2015</u>	<u>2014</u>
<b>Cash flows from operating activities</b>		
Receipts from customers	\$ 56,061,687	\$ 54,198,321
Payments for personnel costs	(1,206,410)	(1,163,580)
Payments to contractors and vendors	(20,719,178)	(21,076,872)
Net cash provided by operating activities	<u>34,136,099</u>	<u>31,957,869</u>
<b>Cash flows from capital and related financing activities</b>		
Interest paid	(19,325,821)	(19,170,594)
Acquisition and construction of capital assets	(10,237,318)	(9,709,799)
Payment to escrow agent for refunded bonds		(84,527,097)
Proceeds from sale of bonds	80,435,000	84,237,443
Principal payments	(10,705,000)	(10,570,000)
Bond issuance costs	(721,530)	(322,616)
Net cash provided by capital and related financing activities	<u>39,445,331</u>	<u>(40,062,663)</u>
<b>Cash flows from investing activities</b>		
Interest received	1,977,960	2,068,688
Payments for investments	(135,473,490)	(258,382,766)
Receipts from investment sales and maturities	141,800,915	266,064,985
Net cash provided by investing activities	<u>8,305,385</u>	<u>9,750,907</u>
Net increase in cash and cash equivalents	81,886,815	1,646,113
<b>Balances - beginning of the year</b>	<u>75,889,267</u>	<u>74,243,154</u>
<b>Balances - end of the year</b>	<u>\$ 157,776,082</u>	<u>\$ 75,889,267</u>
<b>Reconciliation of operating income to net cash provided by</b>		
Operating income	\$ 35,432,626	\$ 29,701,711
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization expense	7,637,169	8,509,077
Non-cash revenue from capital contribution credit	(6,018,366)	(6,018,366)
Non-cash revenue from chloramine conversion credit	(1,545,082)	(1,545,083)
Change in assets and liabilities:		
(Increase) decrease in accounts receivable	(515,014)	237,366
(Increase) decrease in prepaid expenses	(10,990)	6,310
(Increase) decrease in other receivables	(403,187)	(71,894)
(Increase) decrease in due from other governments	(241,199)	955,856
Increase (decrease) in accounts payable	522,032	(556,757)
Increase (decrease) in other payable	12,219	(1,883)
Increase (decrease) in due to other governments	(735,387)	735,387
Increase (decrease) in compensated absences	1,278	6,144
Total adjustments	<u>(1,296,527)</u>	<u>2,256,157</u>
<b>Net cash provided by operating activities</b>	<u>\$ 34,136,099</u>	<u>\$ 31,957,868</u>
<b>Cash and cash equivalents per balance sheet:</b>		
Cash and cash equivalents	\$ 53,775,815	\$ 44,970,413
Restricted cash and cash equivalents	104,000,267	30,918,854
	<u>\$ 157,776,082</u>	<u>\$ 75,889,267</u>

See Notes to Financial Statements.



*North Harris County Regional Water Authority  
Notes to Basic Financial Statements  
December 31, 2015*

**Note 1 – Summary of Significant Accounting Policies**

The North Harris County Regional Water Authority (the “Authority”) was created in 1999 under Article 16, Section 59 of the Texas Constitution by House Bill 2965, as passed by the 75th Texas Legislature and as amended (the “Act”). The Authority began operations in October 1999. The Act empowers the Authority to provide for the conservation, preservation, protection, recharge and prevention of waste of groundwater and for the reduction of groundwater withdrawals.

The Authority charges a fee, based on the amount of water pumped from the well, and/or the alternative water provided, to the owner of wells located in the Authority’s boundaries, unless exempted. The fees established by the Board of Directors must be sufficient to: (1) achieve water conservation, prevent waste of water, serve as a disincentive to pumping groundwater and make available alternative water supplies; and (2) enable the Authority to meet operation and maintenance expenses and pay the principal and interest on any debt issued by the Authority.

The accompanying financial statements of the Authority have been prepared in conformity with accounting principles generally accepted in the United States of America as promulgated by the Governmental Accounting Standards Board (GASB). The following is a summary of the most significant policies:

**Reporting Entity**

The Authority is a political subdivision of the State of Texas governed by an elected five member board. As required by generally accepted accounting principles, these financial statements have been prepared based on considerations regarding the potential for inclusion of other entities, organizations or functions as part of the Authority’s financial reporting entity. No other entities, organizations or functions have been included in the Authority’s financial reporting entity. Additionally, as the Authority is considered a primary government for financial reporting purposes, its activities are not considered a part of any other governmental or other type of reporting entity.

Considerations regarding the potential for inclusion of other entities, organizations or functions in the Authority’s financial reporting entity are based on criteria prescribed by generally accepted accounting principles. These same criteria are evaluated in considering whether the Authority is a part of any other governmental or other type of reporting entity. The overriding elements associated with prescribed criteria considered in determining that the Authority’s financial reporting entity status is that of a primary government are: that it has a separate governing body; it is legally separate; and it is fiscally independent of other state and local governments. Additional prescribed criteria under generally accepted accounting principles include; considerations pertaining to organizations for which the primary government is financially accountable; and considerations pertaining to other organizations for which the nature and significance of their relationship with the primary government are such that exclusion would cause the reporting entity’s financial statements to be misleading or incomplete.

***North Harris County Regional Water Authority  
Notes to Basic Financial Statements  
December 31, 2015***

**Note 1 – Summary of Significant Accounting Policies (continued)**

**Basic Financial Statements**

The basic financial statements include the *Statements of Net Position*, the *Statements of Revenues, Expenses and Changes in Net Position* and the *Statements of Cash Flows*. These statements focus on the sustainability of the Authority as an entity and the change in aggregate financial position resulting from these activities for the fiscal year.

**Measurement Focus and Basis of Accounting**

The Authority follows proprietary fund accounting and reporting requirements, which utilize the economic resources measurement focus and the accrual basis of accounting. Proprietary funds distinguish operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenues are charges to customers for water fees. Operating expenses include the cost of services, administrative expenses and depreciation and amortization on capital assets. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

Net position is classified into the following three components:

- Net investment in capital assets – represents the Authority's investments in capital assets, less any outstanding debt or other borrowings used to acquire those assets. Resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities.
- Restricted – financial resources are reported as restricted when constraints placed on the use of the financial resources are either externally imposed by creditors (such as through debt covenants), grantors, contributors or laws or regulations of other governments or imposed through enabling legislation.
- Unrestricted – net resources not included in the determination of net investment in capital assets or restricted net position.

**Cash and Cash Equivalents**

For the purpose of the *Statement of Cash Flows*, the Authority defines cash and cash equivalents as cash on hand, demand deposits, certificates of deposit and investments in local government investment pools (i.e., TexPool, TexPool Prime and TexSTAR).

**Receivables**

All receivables are reported at their gross value and, where appropriate, are reduced by an allowance for amounts considered uncollectible. At December 31, 2015 an allowance for uncollectible accounts was not considered necessary.

*North Harris County Regional Water Authority  
Notes to Basic Financial Statements  
December 31, 2015*

**Note 1 – Summary of Significant Accounting Policies (continued)**

**Restricted Assets**

Proceeds of bonds or other resources set aside for specific purposes are classified as restricted assets on the balance sheet because their use is limited by applicable bond covenants or contractual agreements.

**Capital Assets**

The Authority defines capital assets as assets with an individual cost of \$5,000 or more and an estimated useful life in excess of one year. Capital assets, which include land, right of way acquisition costs, infrastructure and interest in infrastructure assets constructed by the City of Houston, are reported at historical cost. Donated assets are recorded at their estimated fair value at the date of donation. The costs of normal maintenance and repairs that do not add to the value of assets or materially extend asset lives are not capitalized.

Capital assets are depreciated using the straight-line method over the following estimated useful lives:

Assets	Years
Computer and software	3
Furniture and equipment	5-7
Infrastructure	20-45

Interest costs on assets acquired with tax-exempt borrowings are capitalized, net of interest earned on related interest-bearing investments acquired with proceeds of the related borrowings, from the date of borrowing until the assets are ready for their intended use. During the current fiscal year, the Authority incurred interest costs of \$20,122,474 on construction related tax exempt borrowings and capitalized \$424,565 of net interest.

**Long Term Obligations**

Long term debt and other long term obligations are reported as liabilities on the Authority's *Statement of Net Position*. Bonds payable are reported net of any applicable discount or premium.

*North Harris County Regional Water Authority  
Notes to Basic Financial Statements  
December 31, 2015*

**Note 1 – Summary of Significant Accounting Policies (continued)**

**Compensated Employee Absences**

Compensated employee absences, which include vacation, compensatory time and sick leave, are accumulated during employment and are accrued when earned. The rate at which an employee earns benefits will vary depending upon their employment status, years employed and position with the Authority. Full-time employees are eligible for vacation time after six months employment and earn between 10 and 25 days vacation per year. At December 31, up to 40 hours of vacation leave is automatically converted to compensatory time. Employees who work at least 32 hours per week earn sick leave at the rate of 3-5 hours per pay period, not to exceed 480 hours. Upon termination, employees are paid for accumulated vacation and compensatory time. The General Manager is also entitled to receive compensation for accrued sick leave.

**Use of Estimates**

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and revenues and expenses during the period reported. These estimates include, among others, the collectability of receivables and the useful lives and impairment of capital assets. Estimates and assumptions are reviewed periodically and the effects of revisions are reflected in the financial statements in the period they are determined to be necessary. Actual results could differ from the estimates.

**Note 2 – Cash and Investments**

**Restricted Cash and Investments**

Cash and investments were restricted for the following purposes at December 31, 2015 and 2014:

	<u>2015</u>	<u>2014</u>
Bond reserves	\$ 51,536,692	\$ 44,719,081
Capital improvements	87,283,254	67,648,398
TWBD escrow	40,876,595	
	<u>\$ 179,696,541</u>	<u>\$ 112,367,479</u>

**Note 2 - Cash and Investments (continued)**

**Deposit Custodial Credit Risk**

Custodial credit risk as it applies to deposits (i.e. cash) is the risk that, in the event of the failure of the depository institution, a government will not be able to recover its deposits or will not be able to recover collateral securities. The *Public Funds Collateral Act* (Chapter 2257, Texas Government Code) requires that all of the Authority's deposits with financial institutions be covered by federal depository insurance and, if necessary, pledged collateral held by a third party custodian. The act further specifies the types of securities that can be used as collateral. The Authority's written investment policy establishes additional requirements for collateralization of deposits. As of December 31, 2015, all of the Authority's deposits are insured or fully collateralized.

**Investment Risks**

Investment credit risk is the risk that the investor may not recover the value of an investment from the issuer, while interest rate risk is the risk that the value of an investment will be adversely affected by changes in interest rates. Custodial credit risk is the risk that the investor will not be able to recover the value of its investments that are in the possession of an outside party if the counterparty fails. The Authority's investment policies do not address these risks beyond the rating and maturity restrictions established by state statutes.

**Investments**

The Authority is authorized by the *Public Funds Investment Act* (Chapter 2256, Texas Government Code) to invest in the following: (1) obligations of the United States or its agencies and instrumentalities, (2) direct obligations of the State of Texas or its agencies and instrumentalities, (3) certain collateralized mortgage obligations, (4) other obligations, which are unconditionally guaranteed or insured by the State of Texas or the United States or its agencies or instrumentalities, including obligations that are fully guaranteed or insured by the Federal Deposit Insurance Corporation or by the explicit full faith and credit of the United States, (6) bonds issued, assumed or guaranteed by the State of Israel, (7) insured or collateralized certificates of deposit, (8) certain fully collateralized repurchase agreements, (9) bankers' acceptances with limitations, (10) commercial paper rated A-1 or P-1 or higher and a maturity of 270 days or less, (11) no-load money market mutual funds and no-load mutual funds, with limitations, (12) certain guaranteed investment contracts, (13) certain qualified governmental investment pools and (14) a qualified securities lending program. The Authority has adopted a written investment policy to establish the principles by which the Authority's investment program should be managed. This policy further restricts the types of investments in which the Authority may invest.

**North Harris County Regional Water Authority**  
**Notes to Basic Financial Statements**  
**December 31, 2015**

**Note 2 - Cash and Investments (continued)**

As of December 31, 2015, the Authority's investments and maturities are as follows:

<u>Investment Type</u>	<u>Fair Value</u>	<u>Percentage of Total</u>	<u>Maturities in Years</u>	
			<u>Less Than 1</u>	<u>1-5</u>
Federal National Mortgage Association	\$ 59,036,239	23.6%	\$ 13,041,189	\$ 45,995,050
Federal Home Loan Mortgage Corporation	18,214,671	7.4%	3,124,084	15,090,587
Federal Home Loan Bank	13,353,438	5.3%	12,724,707	628,731
Federal Farm Credit Bank	13,195,248	5.3%	465,313	12,729,935
U.S. Treasury Notes/Bonds	49,650,225	19.9%	17,162,782	32,487,443
TexPool	18,703,780	7.5%	18,703,780	
TexPool Prime	38,824,935	15.5%	38,824,935	
TexSTAR	38,716,866	15.5%	38,716,866	
	<u>\$ 249,695,402</u>	<u>100.0%</u>	<u>\$ 142,763,656</u>	<u>\$ 106,931,746</u>

The Authority considers the investments in TexPool, TexPool Prime and TexSTAR to have a maturity of less than one year because the weighted average maturities of these pools are 76 days, 41 days and 68 days, respectively. The Authority's investments are rated Aaa by Moody's, AAA by Fitch and AA+ by Standard & Poor's. As previously noted, the investment pools are reported as cash equivalents on the *Statement of Net Position*.

As of December 31, 2014, the Authority's investments were as follows:

<u>Investment Type</u>	<u>Fair Value</u>	<u>Percentage of Total</u>	<u>Maturities in Years</u>	
			<u>Less Than 1</u>	<u>1-5</u>
Federal National Mortgage Association	\$ 70,090,476	30.4%	\$ 30,932,625	\$ 39,157,851
Federal Home Loan Mortgage Corporation	19,424,330	8.4%	8,650,182	10,774,148
Federal Home Loan Bank	18,109,825	7.8%	15,189,203	2,920,622
Federal Farm Credit Bank	2,159,944	0.9%	2,158,343	1,601
U.S. Treasury Notes/Bonds	51,057,665	22.1%	27,402,751	23,654,914
U.S. Small Business Administration Participation Certificates	125,145	0.1%	125,145	
TexPool	18,640,648	8.1%	18,640,648	
TexPool Prime	17,974,657	7.8%	17,974,657	
TexSTAR	33,168,002	14.4%	33,168,002	
	<u>\$ 230,750,692</u>	<u>100.0%</u>	<u>\$ 154,241,556</u>	<u>\$ 76,509,136</u>

**North Harris County Regional Water Authority**  
**Notes to Basic Financial Statements**  
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**Note 2 - Cash and Investments (continued)**

The Authority considers the investments in TexPool, TexPool Prime and TexSTAR to have a maturity of less than one year because the weighted average maturities of these pools at December 31, 2014 was 72 days, 40 days and 73 days, respectively. The Authority's investments are rated Aaa by Moody's, AAA by Fitch and AA+ by Standard & Poor's.

Investment income is comprised of the following:

	<u>2015</u>	<u>2014</u>
Interest payments	\$ 2,054,940	\$ 2,107,943
Net decrease in fair value of investments	<u>(1,250,254)</u>	<u>(1,209,574)</u>
Total	<u>\$ 804,686</u>	<u>\$ 898,369</u>

**Investment Pools**

The Authority participates in TexPool, the Texas Local Government Investment Pool. The State Comptroller of Public Accounts exercises oversight responsibility of TexPool, which includes (1) the ability to significantly influence operations, (2) designation of management and (3) accountability for fiscal matters. Additionally, the State Comptroller has established an advisory board composed of both participants in TexPool and other persons who do not have a business relationship with TexPool. The Advisory Board members review the investment policy and management fee structure. Although TexPool is not registered with the SEC as an investment company, it operates in a manner consistent with the SEC's Rule 2a7 of the Investment Company Act of 1940. As permitted by GAAP, TexPool uses amortized cost (which excludes unrealized gains and losses) rather than market value to compute share price. Accordingly, the fair value of the Authority's position in TexPool is the same as the value of TexPool shares.

The Authority also participates in TexSTAR, which also operates as 2a-7 like investment pool. TexSTAR is managed by First Southwest Asset Management and JP Morgan Chase. As with TexPool, the Authority's position in TexSTAR is the same as the value of the Authority's share in TexSTAR.

**North Harris County Regional Water Authority**  
**Notes to Basic Financial Statements**  
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**Note 3 – Capital Assets**

A summary of changes in capital assets during the year ended December 31, 2015, follows:

	Beginning Balance	Additions	Retirements	Ending Balance
Capital assets not being depreciated				
Land and ROW acquisition	\$ 24,617,769	\$ 87,692	\$ -	\$ 24,705,461
Construction in progress	8,684,529	3,589,990	(2,967,072)	9,307,447
Non-depreciable capital assets	<u>33,302,298</u>	<u>3,677,682</u>	<u>(2,967,072)</u>	<u>34,012,908</u>
Capital assets being depreciated/amortized				
Interest in water facilities	77,453,800	5,513,442		82,967,242
Interest in transmission facilities	23,037,070	6,865,644		29,902,714
Infrastructure	274,039,275	2,967,072		277,006,347
Furniture, computers & equipment	221,526			221,526
Subtotal	<u>374,751,671</u>	<u>15,346,158</u>		<u>390,097,829</u>
Less accumulated depreciation/amortization				
Interest in water facilities	(19,052,430)	(992,508)		(20,044,938)
Interest in transmission facilities	(4,613,767)	(520,874)		(5,134,641)
Infrastructure	(31,971,130)	(6,123,075)		(38,094,205)
Furniture, computers & equipment	(220,817)	(712)		(221,529)
Subtotal	<u>(55,858,144)</u>	<u>(7,637,169)</u>		<u>(63,495,313)</u>
Depreciable capital assets, net	<u>318,893,527</u>	<u>7,708,989</u>		<u>326,602,516</u>
Total capital assets, net	<u>\$ 352,195,825</u>	<u>\$ 11,386,671</u>	<u>\$ (2,967,072)</u>	<u>\$ 360,615,424</u>

Depreciation and amortization expense for the current year was \$7,637,169.

The Authority had the following contractual commitments for construction projects at December 31, 2015:

Contract	Contractual Commitment	Construction in Progress	Remaining Commitment
Texas State Highway 249 regional pump station (Project 24B)	\$ 258,976	\$ 101,200	\$ 157,776
Booster pump capacity expansion and other improvements at the Spears Road Regional Pump Station (Project 2-5)	4,558,341	4,415,100	143,241
	<u>\$ 4,817,317</u>	<u>\$ 4,516,300</u>	<u>\$ 301,017</u>



**North Harris County Regional Water Authority**  
**Notes to Basic Financial Statements**  
**December 31, 2015**

**Note 4 – Leases**

In 2000, the Authority entered into a lease agreement for office space. The lease was first amended November 1, 2005 and terminated on January 31, 2011. The Authority executed a second amendment, which was effective February 1, 2011 and will terminate on June 30, 2016. The Authority may terminate the lease any time after thirty-six months, by giving six months written notice and by paying a lease termination penalty of \$15,000 if the lease is terminated during the lease term months of 41-52 or a penalty of \$10,000 if the lease is terminated during the lease term months of 53-65. The Authority has also entered into various leases for office equipment. The Authority paid \$124,826 under these leases during the current period. Future annual commitments for leases are as follows:

<u>Year Ending</u>	<u>Amount</u>
2016	\$ 71,067
2017	11,957
	<u>\$ 83,024</u>

**Note 5 – Compensated Absences**

The change in the Authority’s liability for compensated absences for years ending 2015 and 2014 is as follows:

	<u>2015</u>	<u>2014</u>
Balance at beginning of year	\$ 122,145	\$ 116,001
Increase in liability	1,278	6,144
Balance at end of year	<u>\$ 123,423</u>	<u>\$ 122,145</u>

**Note 6 – Senior Lien Revenue Bonds**

The Authority issues Senior Lien Revenue Bonds (Senior Bonds) primarily to finance the design, acquisition and construction of regional water production, transmission, pumping, storage and distribution systems. The principal and interest on the Authority’s bonds will be repaid from net revenues.

Bonds payable, as reported on the financial statements for years ending 2015 and 2014 consists of the following:

	<u>2015</u>	<u>2014</u>
Bonds payable	\$ 473,650,000	\$ 403,920,000
Unamortized premiums	22,351,189	23,558,854
Unamortized discounts	(1,902,406)	(1,988,604)
Total	<u>\$ 494,098,783</u>	<u>\$ 425,490,250</u>
Due within one year	<u>\$ 11,385,000</u>	<u>\$ 10,570,000</u>

*North Harris County Regional Water Authority  
Notes to Basic Financial Statements  
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**Note 6 – Senior Lien Revenue Bonds**

The Authority's outstanding bonds payable at December 31, 2015 are comprised of the following individual issues:

<u>Series</u>	<u>Amounts Outstanding</u>	<u>Original Issue Amount</u>	<u>Interest Rates</u>	<u>Maturity Date, Serially, Beginning /Ending</u>	<u>Interest Payment Dates</u>	<u>Callable Date</u>
2008	\$ 223,575,000	\$ 238,115,000	4.00% - 5.50%	December 15, 2013/2038	June 15 / December 15	December 15, 2018
2013 Refunding	99,155,000	106,320,000	2.00% - 5.00%	December 15, 2014/2033	June 15 / December 15	December 15, 2022
2014 Refunding	70,485,000	72,510,000	2.00% - 5.00%	December 15, 2015/2035	June 15 / December 15	December 15, 2024
2015	80,435,000	80,435,000	0.45% - 3.21%	December 15, 2017/2045	June 15 / December 15	December 15, 2025
	<u>\$ 473,650,000</u>	<u>\$ 497,380,000</u>				

On December 11, 2015, the Authority issued its \$80,435,000 Series 2015 Senior Lien Revenue Bonds at a net effective interest rate of 2.878434%. The Authority obtained financing for these bonds through the State Water Implementation Revenue Fund for Texas (SWIRFT) of the Texas Water Development Board. Proceeds of the bonds will be used to finance the design, acquisition and construction of the Authority's proportionate share of the Northeast Water Purification Plant Expansion, the Second Source Transmission Line Phase I and II and the 2025 Distribution System.

On July 23, 2015, the Texas Water Development Board approved a \$953,405,000 multi-year commitment in SWIRFT bonds to the Authority. The Authority intends to issue SWIRFT bonds for each fiscal year through 2021 to fund the Authority's costs for the Northeast Water Purification Plant Expansion, the Second Source Transmission Line Phase I and II and the 2025 Distribution System. As of December 31, 2015, the Authority has issued \$80,435,000 in SWIRFT bonds.

The change in the Authority's long term debt for the last two years is as follows:

	<u>2015</u>	<u>2014</u>
Bonds payable, beginning of year	\$ 403,920,000	\$ 425,850,000
Bonds issued	80,435,000	72,510,000
Bonds refunded		(83,870,000)
Bonds retired	(10,705,000)	(10,570,000)
Payable, end of year	<u>\$ 473,650,000</u>	<u>\$ 403,920,000</u>

The Authority was in compliance with the bond covenants as of December 31, 2015.

*North Harris County Regional Water Authority  
Notes to Basic Financial Statements  
December 31, 2015*

**Note 6 – Senior Lien Revenue Bonds (continued)**

The Senior Bonds are secured by a lien on and pledge out the net revenues of the Authority. As additional security, the bond resolutions required the establishment of an Interest and Sinking Fund, a Reserve Fund and a Coverage Fund. A description of each fund follows:

- Interest and Sinking Fund – Used to accumulate the funds required to make the scheduled payments of debt service on the Senior Bonds. Money in the Interest and Sinking Fund shall be used solely for the purpose of paying principal, interest and any bank charges and other costs associated with payments of debt service on the Senior Bonds. As of December 31, 2015, the Interest and Sinking Fund requirements were \$4,420,449. Investments restricted for this fund were \$9,121,052, of which \$4,700,603 has been classified as unrestricted for reporting purposes.
- The Reserve Fund – Used (to the extent that amounts on deposit in the Interest and Sinking Fund and the Coverage Fund are insufficient) to secure and provide for the payment of principal and interest on the Senior Bonds as they become payable. As of December 31, 2015, the Reserve Fund requirements were \$34,864,274. The Authority has investments and cash equivalents restricted for this fund in the amount of \$34,934,001, of which \$69,727 has been classified as unrestricted for reporting purposes.
- The Coverage Fund – Used to accumulate funds equal to 25% of the maximum annual debt service requirements for outstanding debt in any fiscal year. The Coverage Fund requirement as of December 31, 2015, was \$8,716,068. The Authority has investments and cash equivalents restricted for this fund of \$8,716,068.
- Operation and Maintenance Reserve Fund – Funds from gross revenues of the Authority will be deposited on or before the last business day of the month into this account. As of December 31, 2015, investments restricted for this fund were \$3,535,900.

**Historical Debt Service Coverage**

The Authority maintains certain financial ratios as required by its bond resolutions. The following table summarizes the key ratios:

	2015	2014	2013
Net operating income per financial statements	\$ 35,432,626	\$ 29,701,711	\$ 31,285,818
Add back depreciation and amortization	7,637,169	8,509,077	7,947,351
Net revenues for debt service	43,069,795	38,210,788	39,233,169
Add:			
Coverage fund	8,701,137	8,670,516	8,628,126
Improvement fund	116,247,150	110,914,575	110,454,239
Adjusted net revenues	<u>\$ 168,018,082</u>	<u>\$ 157,795,879</u>	<u>\$ 158,315,534</u>
Debt Service Requirements	<u>\$ 32,873,812</u>	<u>\$ 29,563,728</u>	<u>\$ 30,782,655</u>
Debt service coverage	1.31	1.29	1.27
Adjusted debt service coverage	5.11	5.34	5.14

**Note 6 – Senior Lien Revenue Bonds (continued)**

**Reserve Fund**

The purpose of the Reserve Fund is to provide for ready access to funds on short notice in the event that the Authority is ever unable to make debt service payments in a timely manner. Accordingly, the Reserve Fund must contain cash and investments in a required minimum amount (the “Reserve Fund Requirement”) which is equal to the maximum annual debt service payments on the related bonds. In the alternative, the Reserve Fund Requirement may be satisfied with either: (i) a surety bond or insurance policy, if the insurer strength rating of the issuer of the surety bond or insurance policy is rated “AAA” or the equivalent; or (ii) an unconditional irrevocable letter of credit issued by a bank rated “AA” or the equivalent.

The Master Resolution provides that, in the event the insurer strength rating of the provider of a surety bond satisfying the Reserve Fund Requirements falls below “AAA” (but not below “A”), the Authority must take one of the following steps:

- i. deposit into the Reserve Fund cash sufficient to cause money in the Reserve Fund to accumulate to the Reserve Fund Requirement, such amount to be paid over the ensuing five years in equal installments at least semi-annually, or
- ii. replace the surety bond with another surety bond, insurance policy or letter of credit issued by an adequately rated provider within six months of such downgrade.

The Master Resolution further provides that in the event the insurer strength rating of the provider of a surety bond satisfying the Reserve Fund Requirement falls below “A”, the Authority must take one of the following steps:

- i. deposit into the Reserve Fund cash sufficient to cause the money in the Reserve Fund to accumulate to the Reserve Fund Requirement, such amount to be paid over the ensuing year in equal installments on at least a monthly basis, or
- ii. replace such instrument with a surety bond, insurance policy or letter of credit issued by an adequately rated provider within six months of such occurrence.

As of December 31, 2015, the Reserve Fund Requirement is \$34,864,274, which consists of \$17,073,413 for the Series 2008 Senior Bonds, \$8,051,006 for the 2013 Senior Lien Revenue Refunding Bonds, \$5,559,850 for the 2014 Senior Lien Revenue Refunding Bonds and \$4,180,005 for the 2015 Senior Lien Revenue Bonds. All of the Reserve Fund Requirements have been met. Additionally, the 2014 Reserve Fund has a surplus of \$132,860 and the 2015 Reserve Fund has a surplus of \$731.

*North Harris County Regional Water Authority  
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**Note 6 – Senior Lien Revenue Bonds (continued)**

**Debt Service Requirements**

Principal and interest payments on the Senior Bonds will be provided through the payment of water fees by utility districts and non-exempt well owners. As of December 31, 2015, the debt service requirements on the Senior Bonds outstanding are as follows:

<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Totals</u>
2016	\$ 11,385,000	\$ 21,337,901	\$ 32,722,901
2017	13,900,000	20,826,394	34,726,394
2018	14,400,000	20,332,935	34,732,935
2019	14,960,000	19,782,127	34,742,127
2020	15,610,000	19,139,681	34,749,681
2021	16,230,000	18,518,499	34,748,499
2022	16,995,000	17,770,197	34,765,197
2023	17,745,000	17,011,061	34,756,061
2024	18,525,000	16,239,869	34,764,869
2025	19,350,000	15,427,619	34,777,619
2026	20,270,000	14,523,293	34,793,293
2027	21,215,000	13,569,183	34,784,183
2028	22,105,000	12,684,025	34,789,025
2029	23,050,000	11,744,946	34,794,946
2030	24,095,000	10,708,763	34,803,763
2031	25,270,000	9,537,380	34,807,380
2032	26,475,000	8,341,005	34,816,005
2033	27,750,000	7,073,916	34,823,916
2034	20,995,000	5,777,721	26,772,721
2035	22,050,000	4,728,371	26,778,371
2036	17,605,000	3,624,612	21,229,612
2037	18,490,000	2,736,062	21,226,062
2038	19,430,000	1,801,982	21,231,982
2039	3,335,000	819,756	4,154,756
2040	3,440,000	715,704	4,155,704
2041	3,550,000	608,376	4,158,376
2042	3,665,000	494,776	4,159,776
2043	3,795,000	377,496	4,172,496
2044	3,915,000	255,677	4,170,677
2045	4,050,000	130,005	4,180,005
	<u>\$ 473,650,000</u>	<u>\$ 296,639,328</u>	<u>\$ 770,289,328</u>

**North Harris County Regional Water Authority**  
**Notes to Basic Financial Statements**  
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**Note 7 – Capital Contributions**

In 2003, the Authority entered into contracts with twenty-four Municipal Utility Districts (MUDs) to provide funds to pay capital expenses of the Authority's system. Each MUD has paid a Capital Contribution based on a percentage of its pro-rata share of the total groundwater production for all water utilities during the calendar year 2002. Capital contributions of \$32,573,177 were made to the Authority in the 2003 fiscal year. The participating MUDs began receiving contribution credits against their individual water fees distributed over the life of the Series 2003 Senior Bonds beginning with the 2003 third quarter pumpage fees. Any amounts remaining plus accrued interest at the end of the capital contribution expiration date will be credited against any amounts owed to the Authority by the MUDs or paid to the MUDs by the Authority.

Future contribution credits including interest, principal and remaining balance, at the effective interest rate of the Senior Bonds for the 2003 capital contributions as of December 31, 2015 are as follows:

<b>Year</b>	<b>Principal</b>	<b>Interest</b>	<b>Total</b>	<b>Remaining Balance</b>
2016	\$ 976,717	\$ 1,397,125	\$ 2,373,842	\$ 26,648,135
2017	1,026,113	1,347,729	2,373,842	25,622,022
2018	1,078,008	1,295,834	2,373,842	24,544,014
2019	1,132,528	1,241,314	2,373,842	23,411,486
2020	1,189,806	1,184,036	2,373,842	22,221,680
2021	1,249,981	1,123,861	2,373,842	20,971,699
2022	1,313,198	1,060,644	2,373,842	19,658,501
2023	1,379,613	994,229	2,373,842	18,278,888
2024	1,449,387	924,455	2,373,842	16,829,501
2025	1,522,690	851,152	2,373,842	15,306,811
2026	1,599,700	774,142	2,373,842	13,707,111
2027	1,680,605	693,237	2,373,842	12,026,506
2028	1,765,601	608,241	2,373,842	10,260,905
2029	1,854,897	518,945	2,373,842	8,406,008
2030	1,948,708	425,134	2,373,842	6,457,300
2031	2,047,264	326,578	2,373,842	4,410,036
2032	2,150,804	223,038	2,373,842	2,259,232
2033	2,259,232	114,261	2,373,493	
	<u>\$ 27,624,852</u>	<u>\$ 15,103,955</u>	<u>\$ 42,728,807</u>	

In 2005, the Authority entered into agreements with nineteen MUDs. Capital contributions of \$14,675,978 were made to the Authority in the 2005 fiscal year. The participating MUDs began receiving contribution credits against their individual water fees distributed over the life of the Series 2005 Senior Bonds beginning with the 2005 third quarter pumpage fees. As with the 2003 contribution credits, any amounts remaining plus accrued interest at the end of the capital contribution date will be credited against any amounts owed to the Authority by the MUDs or paid to the MUDs by the Authority.

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**Note 7 – Capital Contributions (continued)**

Future contribution credits including interest, principal and remaining balance, at the effective interest rate of the Senior Bonds for the 2005 capital contributions as of December 31, 2015 are as follows:

<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>	<u>Remaining Balance</u>
2016	\$ 391,232	\$ 609,647	\$ 1,000,879	\$ 12,286,764
2017	410,045	590,834	1,000,879	11,876,719
2018	429,763	571,116	1,000,879	11,446,956
2019	450,429	550,450	1,000,879	10,996,527
2020	472,089	528,790	1,000,879	10,524,438
2021	494,790	506,089	1,000,879	10,029,648
2022	518,583	482,296	1,000,879	9,511,065
2023	543,520	457,359	1,000,879	8,967,545
2024	569,657	431,222	1,000,879	8,397,888
2025	597,050	403,829	1,000,879	7,800,838
2026	625,760	375,119	1,000,879	7,175,078
2027	655,851	345,028	1,000,879	6,519,227
2028	687,389	313,490	1,000,879	5,831,838
2029	720,443	280,436	1,000,879	5,111,395
2030	755,087	245,792	1,000,879	4,356,308
2031	791,397	209,482	1,000,879	3,564,911
2032	829,453	171,426	1,000,879	2,735,458
2033	869,339	131,540	1,000,879	1,866,119
2034	911,143	89,736	1,000,879	954,976
2035	954,976	45,922	1,000,898	
	<u>\$ 12,677,996</u>	<u>\$ 7,339,603</u>	<u>\$ 20,017,599</u>	

In 2008, the Authority entered into contracts with twenty MUDs to provide funds to pay capital expenses of the Authority's system. Each MUD has paid a Capital Contribution based on a percentage of its pro-rata share of the total groundwater production for all water utilities during the calendar year 2009. Capital contributions of \$30,936,787 and \$4,960,093 were made to the Authority in the 2008 and 2009 fiscal years, respectively, for total 2008 contributions of \$35,896,880. The participating MUDs began receiving contribution credits against their individual water fees distributed over the life of the Series 2008 Senior Bonds beginning with the 2009 first quarter pumpage fees. Any amounts remaining plus accrued interest at the end of the capital contribution expiration date will be credited against any amounts owed to the Authority by the MUDs or paid to the MUDs by the Authority.

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**Note 7 – Capital Contributions (continued)**

Future contribution credits including interest, principal and remaining balance, at the effective interest rate of the Senior Bonds for the 2008 capital contributions as of December 31, 2015 are as follows:

<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>	<u>Remaining Balance</u>
2016	\$ 792,856	\$ 1,850,808	\$ 2,643,664	\$ 33,637,587
2017	835,476	1,808,188	2,643,664	32,802,111
2018	880,387	1,763,277	2,643,664	31,921,724
2019	927,712	1,715,952	2,643,664	30,994,012
2020	977,581	1,666,083	2,643,664	30,016,431
2021	1,030,131	1,613,533	2,643,664	28,986,300
2022	1,085,505	1,558,159	2,643,664	27,900,795
2023	1,143,857	1,499,807	2,643,664	26,756,938
2024	1,205,345	1,438,319	2,643,664	25,551,593
2025	1,270,138	1,373,526	2,643,664	24,281,455
2026	1,338,414	1,305,250	2,643,664	22,943,041
2027	1,410,361	1,233,303	2,643,664	21,532,680
2028	1,486,175	1,157,489	2,643,664	20,046,505
2029	1,566,064	1,077,600	2,643,664	18,480,441
2030	1,650,248	993,416	2,643,664	16,830,193
2031	1,738,957	904,707	2,643,664	15,091,236
2032	1,832,435	811,229	2,643,664	13,258,801
2033	1,930,937	712,727	2,643,664	11,327,864
2034	2,034,735	608,929	2,643,664	9,293,129
2035	2,144,112	499,552	2,643,664	7,149,017
2036	2,259,369	384,295	2,643,664	4,889,648
2037	2,380,821	262,843	2,643,664	2,508,827
2038	2,508,827	134,862	2,643,689	
	<u>\$ 34,430,443</u>	<u>\$ 26,373,854</u>	<u>\$ 60,804,297</u>	



*North Harris County Regional Water Authority  
Notes to Basic Financial Statements  
December 31, 2015*

**Note 7 – Capital Contributions (continued)**

Future contribution credits including interest, principal and remaining balance, at the effective interest rate of the Senior Bonds for all capital contributions as of December 31, 2015 are as follows:

<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>	<u>Remaining Balance</u>
2016	\$ 2,160,805	\$ 3,857,580	\$ 6,018,385	\$ 72,572,457
2017	2,271,634	3,746,751	6,018,385	70,300,852
2018	2,388,158	3,630,227	6,018,385	67,912,694
2019	2,510,669	3,507,716	6,018,385	65,402,025
2020	2,639,476	3,378,909	6,018,385	62,762,549
2021	2,774,902	3,243,483	6,018,385	59,987,647
2022	2,917,286	3,101,099	6,018,385	57,070,361
2023	3,066,990	2,951,395	6,018,385	54,003,371
2024	3,224,389	2,793,996	6,018,385	50,778,982
2025	3,389,878	2,628,507	6,018,385	47,389,104
2026	3,563,874	2,454,511	6,018,385	43,825,230
2027	3,746,817	2,271,568	6,018,385	40,078,413
2028	3,939,165	2,079,220	6,018,385	36,139,248
2029	4,141,404	1,876,981	6,018,385	31,997,844
2030	4,354,043	1,664,342	6,018,385	27,643,801
2031	4,577,618	1,440,767	6,018,385	23,066,183
2032	4,812,692	1,205,693	6,018,385	18,253,491
2033	5,059,508	958,528	6,018,036	13,193,983
2034	2,945,878	698,665	3,644,543	10,248,105
2035	3,099,088	545,474	3,644,562	7,149,017
2036	2,259,369	384,295	2,643,664	4,889,648
2037	2,380,821	262,843	2,643,664	2,508,827
2038	2,508,827	134,862	2,643,689	
	<u>\$ 74,733,291</u>	<u>\$ 48,817,412</u>	<u>\$ 123,550,703</u>	

Changes in capital contributions for the current and prior year are as follows:

	<u>2015</u>	<u>2014</u>
Capital contributions, beginning balance	\$ 76,788,665	\$ 78,743,775
Principal repayments	(2,055,374)	(1,955,110)
Capital contributions, ending balance	<u>\$ 74,733,291</u>	<u>\$ 76,788,665</u>

*North Harris County Regional Water Authority  
Notes to Basic Financial Statements  
December 31, 2015*

**Note 8 – Chloramination Conversion Credits**

Entities designated to receive surface water from the Authority were required to install chloramine disinfection systems at their facilities. The Authority has established a program to reimburse entities for the cost of constructing these systems. The reimbursement is in the form of a credit against pumpage and/or surface water fees. The credit is calculated by amortizing the cost of the chloramines system at six percent interest over a thirty year period, which will begin the year that the facilities are placed in service. The annual credit will be divided by twelve and the resulting amount will be credited monthly toward the fees payable to the Authority for water used. As of December 31, 2015, approximately fifty entities have provided the required documentation to the Authority and are receiving the monthly chloramination credit.

During the current fiscal year, the Authority reimbursed District's \$334,045 in principal and \$1,211,037 in interest for their chloramination conversion facilities.

Changes to the Authority's liability for chloramination credits for the current and prior year are as follows:

	<u>2015</u>	<u>2014</u>
Chloramine credits payable, beginning of year	\$ 20,184,018	\$ 20,499,155
Principal repayments	(334,045)	(315,137)
Chloramine credits payable, end of year	<u>\$ 19,849,973</u>	<u>\$ 20,184,018</u>

*North Harris County Regional Water Authority*  
*Notes to Basic Financial Statements*  
*December 31, 2015*

**Note 8 – Chloramination Conversion Credits (continued)**

As of December 31, 2015, the annual chloramination credits, including principal, interest and remaining balance are as follows:

<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>	<u>Remaining Balance</u>
2016	\$ 354,088	\$ 1,190,995	\$ 1,545,083	\$ 19,495,885
2017	375,333	1,169,749	1,545,082	19,120,552
2018	397,853	1,147,229	1,545,082	18,722,699
2019	421,724	1,123,358	1,545,082	18,300,975
2020	447,028	1,098,055	1,545,083	17,853,947
2021	473,850	1,071,233	1,545,083	17,380,097
2022	502,281	1,042,802	1,545,083	16,877,816
2023	532,417	1,012,665	1,545,082	16,345,399
2024	564,362	980,720	1,545,082	15,781,037
2025	598,224	946,858	1,545,082	15,182,813
2026	634,118	910,965	1,545,083	14,548,695
2027	672,165	872,918	1,545,083	13,876,530
2028	712,495	832,588	1,545,083	13,164,035
2029	755,244	789,838	1,545,082	12,408,791
2030	800,559	744,524	1,545,083	11,608,232
2031	848,592	696,490	1,545,082	10,759,640
2032	899,508	645,575	1,545,083	9,860,132
2033	953,478	591,604	1,545,082	8,906,654
2034	1,010,687	534,395	1,545,082	7,895,967
2035	1,071,328	473,754	1,545,082	6,824,639
2036	1,135,608	409,475	1,545,083	5,689,031
2037	1,203,744	341,338	1,545,082	4,485,287
2038	1,275,969	269,113	1,545,082	3,209,318
2039	1,352,527	192,555	1,545,082	1,856,791
2040	1,363,300	111,404	1,474,704	493,491
2041	456,167	21,112	477,279	37,324
2042	37,324	1,131	38,455	
	<u>\$ 19,849,973</u>	<u>\$ 19,222,443</u>	<u>\$ 39,072,416</u>	

**Note 9 – Unrestricted Net Position**

Included in the Authority's unrestricted net position (i.e., the residual of assets less liabilities) of \$117,486,436, is \$116,247,150 in cash and investments, which the Authority has designated as additional bond reserves and has deposited in the Improvement Fund.

*North Harris County Regional Water Authority  
Notes to Basic Financial Statements  
December 31, 2015*

**Note 10 – Risk Management**

The Authority is exposed to various risks related to torts: theft of, damage to and destruction of assets; errors and omissions; and natural disasters. The Authority's risk management program encompasses various means of protecting the Authority against loss by obtaining property, casualty and liability coverage through commercial insurance carriers. There have been no significant reductions in insurance coverage. Settlement amounts have not exceeded insurance coverage for the current year or the three prior years.

**Note 11 – Deferred Compensation Plans**

The Authority offers its employees a deferred compensation plan created in accordance with Internal Revenue Code, Section 457. The plan is available and permits employees to defer a portion of their salary until future years. The deferred compensation is not available to employees until termination, retirement, death or unforeseeable emergency. The plan is administered by the International City Management Association - Retirement Corporation (ICMA-RC).

**Note 12 – Pension Plan**

The Authority has established the North Harris County Regional Water Authority Qualified Pension Plan 401(a) (the "Plan"). The Plan covers all employees. Under the terms of the Plan, active participants become 100% vested on the fifth anniversary of employment. Participants are eligible for payment of benefits upon reaching age 70½, becoming disabled or separating from service for any other reason. Benefits are distributed in accordance with the instructions of the participants. The Board of Directors appointed ICMA-RC to serve as Plan administrator and trustee. The Plan provides for a minimum Authority contribution of 7% of total current covered payroll. At December 31, 2015, all of the Authority's employees were members of the Plan. Non-vested contributions are immaterial to total contributions at December 31, 2015. Vested contributions are solely the possession of participating employees. Total covered payroll was \$929,542 for the year ended December 31, 2015. Employer contributions to the Plan were \$88,977.

In 2003, the Authority established an additional 401(a) plan for management employees only. It is identical to the above Plan with the following exceptions: 1) management employees are fully vested on the second anniversary of employment and 2) the Plan provides for a minimum Authority contribution of 25% for the current year annual covered payroll of the General Manager. The total payroll and employer contributions for this plan are included in the totals above.

**Note 13 – Water Supply Contracts**

In December 2002, the Authority entered into a forty year contract with the City of Houston (Houston) for the purchase of capacity in certain untreated water facilities and treated water facilities, including transmission facilities, of Houston. Under the terms of the contract, Houston will provide surface water to the Authority at a point of delivery to be located near Highway 59 and Beltway 8.

**North Harris County Regional Water Authority**  
**Notes to Basic Financial Statements**  
**December 31, 2015**

**Note 13 – Water Supply Contracts (continued)**

The contract stipulates that the Authority will purchase capacity, in phases, in Houston’s surface water system. Houston will be responsible for the design, construction, ownership, maintenance and operation of both treated and untreated water facilities prior to a mutually agreeable delivery point(s). The Authority will be responsible for the design, construction, ownership, maintenance and operation of all facilities located beyond the point of delivery.

During 2003, the Authority made its first payment of \$51,492,844 to Houston for the purchase of capacity in Houston’s treated water facilities and transmission facilities constructed prior to the effective date of the contract. In 2009, the Authority made additional payments for the total amount of \$21,799,523 for the Existing Untreated Water Facilities Initial Untreated Water Demand Allocation of 31 million gallons per day (“MGD”).

The Authority will pay Houston, on a monthly basis, its pro-rata share of operating and maintenance costs of the treated and untreated water facilities and transmission lines based on an annual operating budget. Such monthly payments will include an amount adequate to establish an operating reserve. The contract also provides the Authority with the option to purchase additional capacity in the future. The Authority paid Houston for purchased surface water during the current year. Pursuant to the contract, Houston engaged an independent auditor to calculate the true-up of operating costs for the fiscal years ending June 30, 2011, June 30, 2012, June 30, 2013, June 30, 2014 and June 30, 2015. As of December 31, 2015, the net amount owed to the Authority by the City of Houston for all five years is \$241,199, which has been recorded as Due from other governments in the *Statement of Net Position*.

**Luce Bayou Interbasin Transfer Project**

In January 2009, the Authority and Houston executed the First Supplement (the “Supplement”) to the Water Supply Contract to increase the supply of untreated surface water available to the Authority, Houston and the other entities through the construction of the Luce Bayou Interbasin Transfer Project (“Luce Bayou”). When completed, Luce Bayou will convey approximately 400 MGD of untreated surface water from the Trinity River to Lake Houston. The Supplement addresses the allocation of capacity in Luce Bayou and how the costs of the project will be shared by the Authority, the other entities and Houston. The Supplement and Water Supply Contract remain in effect until 2080.

The Coastal Water Authority (CWA) has been designated as the project manager and, working with Houston, is responsible for all decisions and actions relating to the design, development, procurement and construction of all aspects of Luce Bayou. Houston will issue (or cause CWA to issue) bonds, notes or other obligations to pay for all of the costs of the project, except for the right-of-way costs and CWA interest amount (\$360,836 as calculated in the Supplement). In addition to the other terms of the Supplement, neither party shall have any obligation to pay any funds for the project unless and until Houston or CWA have obtained \$28,000,000 in funding from the Texas Water Development Board’s Water Infrastructure Fund that provides for: (i) the accrual of zero interest on such funds for up to 10 years or until the project is completed, whichever occurs first; and (ii) no interest or principal payments on such funds during the 10 year period.

*North Harris County Regional Water Authority  
Notes to Basic Financial Statements  
December 31, 2015*

**Note 13 – Water Supply Contracts (continued)**

Houston agrees to cause the construction of the project so that it is substantially complete by June 30, 2019. The project will be completed in two stages as follows: (1) Phase I will be the permitting, engineering, surveying, right-of-way and site acquisition, which is currently estimated at a cost of \$43,000,000 and (2) Phase II of the project will be the construction and related costs, which is currently estimated at a cost of \$214,000,000.

Under the terms of the contract, the Authority will make the following payments to Houston:

- Lump Sum Payments for Project Right of Way Costs and Payment of CWA Interest Costs;
- Payments for Existing Untreated Water Supply Facilities; and
- Payments for Phases 1 and 2 Annual New Untreated Water Facilities.

Lump Sum Payments. Payment of the Authority's pro-rata share of the CWA interest costs is \$57,734 which was paid January 27, 2009. Currently, Houston estimates that the right-of-way costs will be \$15,000,000. The Authority has paid Houston a lump sum payment for these costs in three payments as follows: (1) \$1,600,000 which was paid June 15, 2009, (2) \$800,000, which was paid June 15, 2010 and (3) \$800,000 which was paid on July 15, 2012.

Houston and the Authority agreed to "true-up" the payments made by the Authority for the right-of-way costs such that if the Authority has underpaid, taking into account interest accrued, it will pay Houston for the shortfall within 60 days of receiving the final accounting and Houston agrees to refund the Authority any overpayment within 60 days of receiving the final accounting.

Payments for Existing Untreated Water Facilities. The Authority seeks to increase its Untreated Water Facilities Demand from 31 MGD to 159 MGD, which is currently estimated to be the Authority's surface water demand in the year 2040. Under the terms of the Supplement, the Authority is required to make four payments to Houston for Existing Untreated Water Facilities. Each payment is based on a formula defined in the Supplement based on the Authority's water demand needs in 2025, 2030, 2035 and 2040.

The first payment is due within 60 days of receiving notification from Houston of the completion of Luce Bayou; the second payment is due the earlier of 60 days after sending notice to Houston of the Authority's water demand needs for 2030 or June 30, 2025; the third payment is due the earlier of 60 days after sending notice to Houston of the Authority's water demand needs for 2035 or June 30, 2030; and the fourth payment is due the earlier of 60 days after sending notice to Houston of the Authority's water demand needs for 2040 or June 30, 2035.

*North Harris County Regional Water Authority  
Notes to Basic Financial Statements  
December 31, 2015*

**Note 13 – Water Supply Contracts (continued)**

Payment for Phases 1 and 2 Annual New Untreated Water Facilities. Payments made to Houston for Phase 1 and 2 Annual New Untreated Water Facilities are to be used only for the purpose of making debt service payments on obligations issued by either Houston or CWA for the construction of Phase 1 and Phase 2 of Luce Bayou. The formulas used to calculate payments are defined in the contract and take into consideration the Authority's 159 MGD untreated water reservation, the total amount of untreated water sold by Houston to all customers and Houston's annual debt service requirement. In the 2013 fiscal year, the CWA received financial assistance in the amount of \$28,754,000 from the State of Texas under the State Participation Program. The Authority's pro-rata share of debt service payments on this obligation will be repaid over 33 years, beginning in 2018.

**Northeast Water Purification Plant Expansion Project**

On February 25, 2015, the Authority and Houston executed the Second Supplement to the Water Supply Contract to increase the supply of treated water to the Authority from 31 MGD to 144 MGD. In order to provide this additional capacity, Houston will expand the Northeast Water Purification Plant in 2 phases. Phase 1 will provide the Authority with an additional 51.05 MGD capacity no later than August 31, 2021 and Phase 2 will provide an additional 61.95 MGD of capacity no later than June 30, 2024.

The Authority's estimated share of total costs is approximately \$469 million. Houston will issue cash calls as needed to fund the expansion. During the current year, the Authority paid Houston \$5,442,891 pursuant to the Second Supplement to the Water Supply Contract.

**Northeast Transmission Line**

On November 10, 2015, the Authority and Houston executed the Third Supplement to the Water Supply Contract to clarify and agree to the terms for the cost sharing, permitting, engineering, surveying, construction, operation and maintenance necessary for the Segment 1 of the Northeast Transmission Line. The Authority's estimated share of the total costs is approximately \$3,604,970. Houston will invoice the Authority prior to engaging a design engineer and prior to awarding the construction contract. The Authority has recorded a liability in the amount of \$48,450 for its pro-rata share of project costs incurred through the effective date of the Third Supplement.

On November 10, 2015, the Authority and Houston executed the Fourth Supplement to the Water Supply Contract to clarify and agree to the terms for the cost sharing, permitting, engineering, surveying, construction, operation and maintenance necessary for the Segment 2 of the Northeast Transmission Line. The Authority's estimated share of the total costs is approximately \$238,040,085. Houston will invoice the Authority prior to engaging a design engineer and prior to awarding the construction contract. The Authority has recorded a liability in the amount of \$6,817,194 for its pro-rata share of project costs incurred through the effective date of the Fourth Supplement.

*North Harris County Regional Water Authority  
Notes to Basic Financial Statements  
December 31, 2015*

**Note 14 – Joint Facilities**

In 2004, the Authority entered into an Agreement for Joint Financing, Design, Construction, Operation and Maintenance of Surface Water Transmission Facilities (“Joint Financing Agreement”) with Harris County Municipal Utility District No. 33 (No. 33) on behalf of the Central Harris County Water Users Consortium, now Central Harris County Regional Water Authority (the “Central Authority”), a consortium of conservation and reclamation Districts established and operating pursuant to the Central Harris County Water Users Consortium Agreement, dated December 13, 2002. The purpose of the Joint Financing Agreement was to memorialize the terms under which the Authority and the Central Authority would share the cost of constructing certain joint facilities necessary to receive treated surface water from Houston.

In October 2007, the Authority and Central Authority entered into an Interlocal Agreement to establish the terms under which the Authority and the Central Authority agreed to share the costs of acquiring properties, rights-of-way, easements and other property interests necessary to construct the joint facilities.

In February 2008, the Authority entered into a Letter of Understanding (the “LOU”) with the Central Authority, which served as an amendment to the Joint Financing Agreement. The LOU expressed the mutual understanding that it was in the best interest of both parties for the Authority to construct a portion of the proposed Central Authority facilities in conjunction with the Authority’s facilities.

On November 6, 2013 the Authority and Central Authority amended and restated the Joint Financing Agreement (the “Amended Agreement”) to consolidate the respective rights and obligations of both parties under the previous agreements and to establish the terms and conditions under which the parties would share the costs of construction, operation and maintenance of the joint facilities constructed by the Authority.

The terms of the Amended Agreement establish that capital costs for each existing joint facility will be allocated between the Authority and the Central Authority on a pro rata basis. Accordingly, the Central Authority paid the Authority \$7,679,119 for its pro rata share of existing joint facilities in December 2013. In the event that the parties decide to jointly finance and construct additional facilities, a separate written agreement will have to be executed. The Authority holds legal title to the joint facilities; however, each party has the use and benefit of its pro rata share of capacity.

The Authority is responsible for the operation and maintenance of the joint facilities. Upon execution of the Amended Agreement, the Central Authority owed the Authority \$170,503 for operation and maintenance costs through December 31, 2012. This amount was paid in December 2013. During the current year, the Central Authority paid the Authority \$72,053 for its pro-rata share of monthly operation and maintenance costs.



## Supplementary Information

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**North Harris County Regional Water Authority**  
**Schedule of Expenses**  
**Last Five Fiscal Years**

	2015	2014	2013	2012	2011
<b>Personnel</b>					
Employee salaries	\$ 955,192	\$ 925,728	\$ 846,823	\$ 744,656	\$ 788,713
Employee retirement	88,977	85,641	79,095	68,946	73,580
Group insurance	104,225	98,521	80,894	73,462	76,059
Medicare/ Social security	59,232	58,178	53,119	45,082	49,374
Workers' compensation insurance					(762)
Unemployment compensation	62	1,656	63	1,566	510
	<u>1,207,688</u>	<u>1,169,724</u>	<u>1,059,994</u>	<u>933,712</u>	<u>987,474</u>
<b>Professional fees</b>					
Legal	150,616	298,558	157,581	126,375	124,597
Engineering	1,702,550	2,361,412	1,989,815	1,650,175	1,518,622
Financial services	4,860	5,805	4,330	4,050	7,020
Legislative consultant	130,000	130,000	130,000	130,000	130,000
Investment management services	142,930	148,317	147,560	160,778	125,796
Redistricting/mapping		2,300		4,700	1,491
Audit	27,500	27,750	26,450	26,000	26,000
	<u>2,158,456</u>	<u>2,974,142</u>	<u>2,455,736</u>	<u>2,102,078</u>	<u>1,933,526</u>
<b>Purchased Services</b>					
Bulk water purchases	13,725,609	15,395,630	14,199,064	9,927,829	11,638,515
	<u>13,725,609</u>	<u>15,395,630</u>	<u>14,199,064</u>	<u>9,927,829</u>	<u>11,638,515</u>
<b>Contracted services</b>					
Operations and maintenance	1,983,564	1,765,057	2,233,857	1,728,817	1,439,198
Temporary services	4,960	16,564	14,170	19,025	32,701
	<u>1,988,524</u>	<u>1,781,621</u>	<u>2,248,027</u>	<u>1,747,842</u>	<u>1,471,899</u>
<b>Occupancy and office</b>					
Office lease	110,017	107,319	102,804	98,206	97,638
Safe deposit box			75	75	
Bank charges	4,202	3,325	11,153	428	127
Printing and office	102,404	42,798	141,087	96,725	96,389
Postage and delivery	38,807	4,563	3,896	32,601	33,061
Telephone	47,906	47,017	84,383	29,974	19,020
Utilities	715,751	784,545	779,591	776,340	1,004,248
Equipment leases	14,810	14,709	16,115	14,724	15,776
Meeting sites					906
Internet service	38,376	41,935	34,517	12,750	9,221
Communication services	72,000	79,129	72,000	72,000	72,000
	<u>1,144,273</u>	<u>1,125,340</u>	<u>1,245,621</u>	<u>1,133,823</u>	<u>1,348,386</u>

See accompanying auditors' report.

**North Harris County Regional Water Authority**  
**Schedule of Expenses**  
**Last Five Fiscal Years**

	2015	2014	2013	2012	2011
<b>Other</b>					
Director fees	\$ 25,650	\$ 24,450	\$ 23,100	\$ 22,950	\$ 23,850
Election expense	31,956	48,785			
Technology transfer projects	34,788	34,863	34,863	39,888	37,863
Insurance	80,917	83,871	82,763	66,364	103,393
Travel	37,065	32,224	29,309	25,627	31,368
Legal notices		25,841			
Membership/Subscription fees	13,035	11,887	11,083	6,564	7,538
Computer services	11,295	14,264	16,083	13,145	12,049
Computer software and equipment	9,200	1,845	7,806	6,644	
Maintenance and repairs	5,864	16,502	16,397	17,325	15,191
Office furniture	1,300		2,760	1,509	2,562
Public education		7,981			
Water conservation	48,845	42,499	48,450	49,767	45,247
Mileage reimbursement	6,788	5,506	4,664	4,628	5,430
Permit fees	506,700	507,110	534,784	523,416	444,080
Seminars/training	9,950	8,443	8,760	9,200	9,600
Security	830	1,088	744	842	682
Miscellaneous	21,621			744	
Administrative			55,534		
	<u>845,804</u>	<u>867,159</u>	<u>877,100</u>	<u>788,613</u>	<u>738,853</u>
<b>Expenses Before Depreciation and Amortization</b>	<u>21,070,354</u>	<u>23,313,616</u>	<u>22,085,542</u>	<u>16,633,897</u>	<u>18,118,653</u>
Depreciation and Amortization	<u>7,637,169</u>	<u>8,509,077</u>	<u>7,947,351</u>	<u>8,241,929</u>	<u>7,161,376</u>
<b>Total Expenses</b>	<u>\$ 28,707,523</u>	<u>\$ 31,822,693</u>	<u>\$ 30,032,893</u>	<u>\$ 24,875,826</u>	<u>\$ 25,280,029</u>

See accompanying auditors' report.

*North Harris County Regional Water Authority  
Schedule of Principal Water Users  
December 31, 2015*

<u>Name</u>	<u>Total Gallons</u>	<u>Fees Paid</u>	<u>Share (%)</u>
Harris Co. M.U.D. 358	889,970,810	\$ 1,779,942	2.9612%
Harris Co. F.W.S.D. 61	845,727,000	1,691,454	2.8140%
NW Harris Co. M.U.D. 5	808,367,082	1,656,254	2.6897%
Tomball, City of	757,109,000	1,514,218	2.5191%
Harris Co. M.U.D. 387	716,989,000	1,433,978	2.3857%
Bridgestone M.U.D.	666,524,247	1,378,440	2.2177%
Harris Co. M.U.D. 367 & 383	561,887,322	1,311,331	1.8696%
Harris Co. M.U.D. 365	500,742,000	1,001,484	1.6661%
Aqua Texas, Inc.	486,972,306	1,010,638	1.6203%
Harris Co. M.U.D. 24	480,047,739	1,054,398	1.5973%
Subtotal	6,714,336,506	13,832,137	22.3407%
All other retail utilities	22,363,273,538	40,300,161	74.4097%
All private well owners	976,619,870	1,953,240	3.2496%
Total	<u>30,054,229,914</u>	<u>\$ 56,085,538</u>	<u>100.0000%</u>

See accompanying auditors' report.

*North Harris County Regional Water Authority  
Historical Rates and Charges  
December 31, 2015*

<u>Effective Date</u>	<u>Fee Schedule (Rate Per 1,000 Gallons of Water)</u>	
January 1, 2000	\$	0.12
April 1, 2000		0.25
October 1, 2003		0.34
April 1, 2005		0.59
October 1, 2006		0.84
October 1, 2007		0.99
October 1, 2008		0.99
January 1, 2009		1.50
January 1, 2010	Groundwater	1.75
	Surface Water	2.20
January 1, 2011	Groundwater	1.75
	Surface Water	2.20
January 1, 2012	Groundwater	1.75
	Surface Water	2.20
April 1, 2014	Groundwater	2.00
	Surface Water	2.45

See accompanying auditors' report.

*North Harris County Regional Water Authority  
Billing and Collection Experience  
December 31, 2015*

<u>Calendar Year Ending</u>	<u>Volume Reported to Subsidence District (gallons)</u>	<u>Volume Reported to Authority (gallons)</u>	<u>Percentage</u>
2003	23,922,957,131	23,919,899,118	99.99%
2004	23,055,346,850	23,002,955,882	99.77%
2005	28,356,373,609	28,351,195,157	99.98%
2006	26,834,935,391	26,822,777,163	99.95%
2007	24,218,161,044	24,199,057,244	99.92%
2008	28,302,980,773	28,274,930,225	99.90%
2009	31,526,248,907	31,449,510,733	99.76%
2010	29,420,861,157	29,371,543,844	99.83%
2011	37,728,453,603	37,713,940,912	99.96%
2012	30,901,831,428	30,871,013,986	99.90%
2013	32,260,208,375	32,204,714,683	99.83%
2014	30,122,900,716	30,080,759,406	99.86%
2015	30,100,833,135	30,054,229,914	99.85%

See accompanying auditors' report.

# McGrath & Co., PLLC

Certified Public Accountants

P.O. Box 270148  
Houston, Texas 77277

Mark W. McGrath CPA  
mark@mcgrath-co.com

Colette M. Garcia CPA  
colette@mcgrath-co.com

May 2, 2016

Board of Directors  
North Harris County Regional Water Authority  
Harris County, Texas

In planning and performing our audit of the financial statements of business type activities of North Harris County Regional Water Authority (the "Authority"), as of and for the years ended December 31, 2015 and December 31, 2014, in accordance with auditing standards generally accepted in the United States of America, we considered the Authority's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore material weaknesses or significant deficiencies may exist that were not identified. However, as discussed below, we identified certain deficiencies in internal control that we consider to be material weaknesses.

A deficiency in internal controls exists when the design or operation of a control does not allow management, in the normal course of performing their assigned functions, to prevent, detect or correct misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies in internal control, such that there is a reasonable possibility that a material misstatement of the Authority's financial statements will not be prevented or detected and corrected on a timely basis.

## **Material Weaknesses**

We observed the following matters that we consider to be material weaknesses:

As is common within the system of internal control of most small organizations, the accounting function of the Authority does not prepare the financial statements complete with footnotes in accordance with accounting principles generally accepted in the United States of America. This could result in the Authority's financial statements and related note disclosures not fully or accurately presenting the Authority's financial position and changes in financial position during the fiscal year in conformity with accounting principles generally accepted in the United States of America.



The Authority's management consists of an elected Board of Directors, General Manager and a Financial Assistant. The Board of Directors supervises management's performance. Management is responsible for design and implementation of internal controls.

In addition to the preparation of the financial reports designed to assist management in the day-to-day operations of the Authority and facilitate decision making related to the overall strategic direction of the Authority, management is also responsible for preparing annual audited financial statements prepared in compliance with generally accepted accounting principles. The Board of Directors and management are responsible for having knowledge and expertise to determine whether these annual audited financial statements have been properly prepared and are free from potential misstatement. In our opinion, this level of expertise requires a Certified Public Accountant with experience in governmental accounting and financial reporting. According to generally accepted auditing standards, the absence of this expertise is considered to be a material weakness in internal control over the financial reporting process.

#### **Management's Response**


See attached.

#### **Conclusion**

Management's written response to the material weaknesses identified in our audit has not been subjected to the auditing procedures applied in the audit of the financial statements, and accordingly, we express no opinion on it.

This communication is intended solely for the information and use of management, Board of Directors and the Texas Commission on Environmental Quality and is not intended to be and should not be used by anyone other than these specified parties.

Sincerely,



McGrath & Co., PLLC-CPAs  
Houston, Texas



Jimmie Schindewolf, P.E.  
General Manager

**BOARD OF DIRECTORS**  
Alan J. Rendl, President  
Kelly P. Fessler, Vice President  
Lenox A. Sigler, Secretary  
Ron Graham, Asst. Secretary  
James D. Pulliam, Treasurer

May 2, 2016

Mr. Mark M. McGrath  
McGrath & Co., PLLC  
P.O. Box 270148  
Houston, Texas 77277

Re: Response to McGrath & Co., PLLC May 2, 2016 Management Letter

Dear Mr. McGrath:

Reference is made to your letter of May 2, 2016 to the Board of Directors of the North Harris County Regional Water Authority (the "Authority"). Your letter in summary addresses the Authority's internal control over financial reporting for the time period from January 1, 2015 to December 31, 2015.

In reviewing your letter, I find that it is similar to the first management letter that was sent to the Authority on May 4, 2007, covering the financial reporting period from January 1, 2006 to December 31, 2006. A copy of my May 4, 2007 letter of response is attached.

On April 26, 2016 Authority Financial Assistant Cyndi Plunkett and I met with you and Colette Garcia of your firm to discuss the draft final audit for Authority Fiscal Year 2015. You both gave the Authority Directors and staff high marks for the financial management of this entity. You also indicated that the Authority is once again receiving a good report card as it relates to the annual audit.

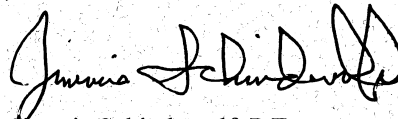
As part of our discussion, Colette also presented me with a draft version of the above referenced management letter. Of particular interest to me was that part of the draft letter that included your findings that the Authority has a material weakness in internal control over the financial reporting process because the Board of Directors and/or staff does not include a Certified Public Accountant with experience in governmental accounting and financial reporting. As we did last year, and the previous years, Cyndi and I expressed our concern about that part of your letter. I would again reiterate that we continue to disagree with your position in this regard.

I have served as General Manager of the Authority since January 7, 2003. Each year the Authority has received a good report card as it relates to the annual audit. I consider this fact a tribute to the Authority Directors and staff and especially to Cyndi Plunkett, the Authority Financial Assistant. Speaking on behalf of the Board of Directors and staff of the North Harris County Regional Water Authority, we have been and continue to be committed to excellence in financial management of this organization.

Mr. Mark M. McGrath  
May 2, 2016  
Page 2

Please feel free to contact me if you have any questions or need any additional information regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Jimmie Schindewolf". The signature is fluid and cursive, with the first name "Jimmie" written in a larger, more prominent script than the last name "Schindewolf".

Jimmie Schindewolf, P.E.  
General Manager

JAS/lr

Attachment

cc: Robin S. Bobbitt – w/attachment  
Jon Polley – w/attachment  
John Howell – w/attachment  
Cyndi Plunkett – w/attachment



Jimmie Schindewolf, P.E.  
General Manager

**BOARD OF DIRECTORS**

Alan J. Rendl, *President*  
Kelly Fessler, *Vice President*  
Lenox A. Sigler, *Secretary*  
James D. Pulliam, *Treasurer*  
Ron Graham, *Asst. Secretary*

May 4, 2007

Mr. Mark M. McGrath, Principal  
Null-Lairson, P.C.  
11 Greenway Plaza  
Houston, Texas 77046

Re: Response to Null-Lairson, P.C. March 12, 2007 Management Letter

Dear Mr. McGrath:

Reference is made to your letter of March 12, 2007 (final version received by this office on May 4, 2007) to the Board of Directors of the North Harris County Regional Water Authority (the "Authority"). Your letter in summary addresses the Authority's internal control over financial reporting for the time period from January 1, 2006 to December 31, 2006.

Please allow me to respond on behalf of the Authority in my capacity as General Manager. As you are aware, Authority Financial Assistant Cyndi Plunkett and I were first made aware in late February that Null-Lairson would be writing this letter and that it was after March 13 that we became aware of a sample letter that was developed and adopted by the Water District Auditor Working Group. As you are also aware, both Cyndi and I have on a number of occasions expressed serious concerns about the content of this letter, especially as it has to do with your finding that the Authority has "a material weakness in internal control over the financial reporting process" because the Board of Directors and/or staff does not include "a Certified Public Accountant with experience in governmental auditing accounting and financial reporting".

I would first of all point out that the matter of having a CPA with auditing experience on our Board or on our staff has never been raised as an issue before. Since the Authority had no knowledge of this matter during the period of time covered by this audit (January 1, 2006 through December 31, 2006), it is obviously impossible to go back into time to remedy the situation to your satisfaction. Then, as far as Authority Fiscal Year 2007 and years beyond are concerned, it is too early to predict how the Authority will deal with this matter in the future.

I have served as General Manager of the Authority since January 7, 2003. Each year the Authority has received a good report card from your firm as it relates to the annual audit. I consider this fact a tribute to the Authority Directors and staff and especially to Cyndi Plunkett, the Authority Financial Assistant. Speaking on behalf of the Board of Directors and staff of the North Harris County Regional Water Authority, we have been and continue to be committed to excellence in financial management of this organization.

Mr. Mark M. McGrath  
May 4, 2007  
Page 2

Please feel free to contact me if you have any questions or need any additional information regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Jimmie Schindewolf". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

Jimmie Schindewolf, P.E.  
General Manager

JAS/lr

cc: Robin S. Bobbitt  
John Howell  
Cyndi Plunkett

InterimFinancialInformation N/A

# Outstanding Debt

Yes, General obligation debt: N

Yes, Revenue debt: Y

Yes, Authorized but unissued debt: N

No: N

**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**

**Existing Outstanding Revenue Bond Debt Service**

**The NHCRWA's currently outstanding debt consists of Series 2015  
Bonds held by the TWDB and the prior bonds are held by the general  
public (not a single bond holder)**

<u>Year</u>	<u>Existing Debt Service</u>
2015	\$30,826,973
2016	\$32,722,899
2017	\$34,726,395
2018	\$34,732,935
2019	\$34,742,126
2020	\$34,749,680
2021	\$34,748,497
2022	\$34,765,194
2023	\$34,756,059
2024	\$34,764,868
2025	\$34,777,619
2026	\$34,793,292
2027	\$34,784,182
2028	\$34,789,025
2029	\$34,794,945
2030	\$34,803,762
2031	\$34,807,380
2032	\$34,816,004
2033	\$34,823,914
2034	\$26,772,720
2035	\$26,778,370
2036	\$21,229,611
2037	\$21,226,061
2038	\$21,231,982
2039	\$4,154,756
2040	\$4,155,704
2041	\$4,158,376
2042	\$4,159,776
2043	\$4,172,496
2044	\$4,170,676
2045	\$4,180,005



# Applicant's Ten Largest Employers

Wal-Mart: 32,000

Houston Independent School District: 22,984

HEB Grocers: 21,471

City of Houston: 21,095

U. T. M.D Anderson Cancer Center: 20,357

Memorial Herman Health System: 20,055

United Airlines: 17,000

Houston Methodist Hospital System: 16,861

Kroger Company: 15,216

Harris County: 14,583

Ten Largest Employers Comments: Data from Greater Houston Partnership, Houston Business Journal, Harris County, TX

## Bond Ratings

Bond Ratings

Type	Standard & Poors	Date Received	Fitch	Date Received	Moody's	Date Received
G.O.						
Revenue	AA	10-16-2014			A	10-16-2014

Bond Rating N/A: Y

## Receive Water or Sewer

Is the project intended to allow the applicant to provide or receive water or sewer services to or from another entity?: Y



JOHNSON RADCLIFFE  
PETROV & BOBBITT PLLC

## MEMORANDUM

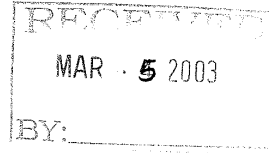
**TO:** Jimmie Schindewolf, P.E.

**FROM:** Robin S. Bobbitt

**DATE:** March 5, 2003

**RE:** North Harris County Regional Water Authority (the "Authority") –  
Water Supply Contract Between the City of Houston, Texas and the North Harris  
County Regional Water Authority (the "Contract")

---



Jimmie, per your request, enclosed for the Authority's files is a fully executed original of the above-captioned Contract.

RSB/jtm  
Enclosures

FORM 132.M  
(Approving/Authorizing)

City of Houston, Texas Ordinance No. 2002-1123

**AN ORDINANCE APPROVING AND AUTHORIZING A WATER SUPPLY CONTRACT BETWEEN THE CITY OF HOUSTON AND THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY; MAKING VARIOUS FINDINGS AND PROVISIONS RELATING TO THE SUBJECT; AND DECLARING AN EMERGENCY.**

\* \* \* \*

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF HOUSTON, TEXAS:**

Section 1. The City Council hereby approves and authorizes the contract, agreement or other undertaking described in the title of this Ordinance, in substantially the form as shown in the document which is attached hereto and incorporated herein by this reference. The Mayor is hereby authorized to execute such document and all related documents on behalf of the City of Houston. The City Secretary is hereby authorized to attest to all such signatures and to affix the seal of the City to all such documents.

Section 2. The Mayor is hereby authorized to take all actions necessary to effectuate the City's intent and objectives in approving such agreement, agreements or other undertaking described in the title of this ordinance, in the event of changed circumstances.

Section 3. The City Attorney is hereby authorized to take all action necessary to enforce all legal obligations under said contract without further authorization from Council.

Section 4. There exists a public emergency requiring that this Ordinance be passed finally on the date of its introduction as requested in writing by the Mayor; therefore, this Ordinance shall be passed finally on such date and shall take effect immediately upon its passage and approval by the Mayor; however, in the event that the Mayor fails to sign this Ordinance within five days after its passage and adoption, it shall take effect in accordance with Article VI, Section 6, Houston City Charter.

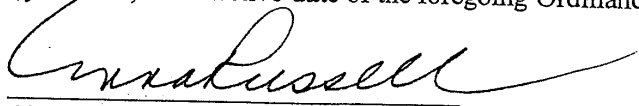
PASSED AND ADOPTED this 11th day of December, 20 02.

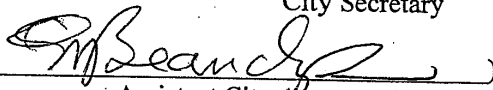
APPROVED this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

\_\_\_\_\_  
Mayor of the City of Houston, Texas

FORM 132.M  
(Approving/Authorizing)

Pursuant to Article VI, Section 6, Houston City Charter, the effective date of the foregoing Ordinance is DEC 17 2002.

  
City Secretary

(Prepared by Legal Dept.   
(EWB:ajl 12/04/2002) Assistant City Attorney  
(Requested by Jon C. Vanden Bosch, Director, Public Works and Engineering Department)  
(L.D. File No. )

U:\WPFILES\ORDINANCE\EWB\NORTH.WPD

AYE	NO	2002-1123
✓		MAYOR BROWN
....	....	COUNCIL MEMBERS
✓		TATRO
✓		GALLOWAY
✓		GOLDBERG
✓		EDWARDS
✓		WISEMAN
✓		ELLIS
✓		KELLER
✓		VASQUEZ
✓		ALVARADO
✓		PARKER
✓		QUAN
✓		SEKULA-GIBBS
✓		BERRY
	ABSENT	ROBINSON
CAPTION	ADOPTED	

MAY 017 Rev. 7/02

CAPTION PUBLISHED IN DAILY COURT  
REVIEW  
DATE: DEC 17 2002

54614  
02-1123

**WATER SUPPLY CONTRACT BETWEEN  
THE CITY OF HOUSTON, TEXAS AND  
THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**

**THIS WATER SUPPLY CONTRACT ("Contract") is made by and between the CITY OF HOUSTON, TEXAS ("Houston") and the NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY ("Authority").**

**WITNESSETH:**

**Recitals**

Houston is a municipal corporation and home-rule city, principally located in Harris County, Texas. Houston owns a water treatment and distribution system and desires to sell water to the Authority.

The Authority is a Texas conservation and reclamation district organized and operating under the provisions of House Bill No. 2965, Seventy-Sixth Legislature, Regular Session (1999), as amended by House Bill 1110, Senate Bill 1444 and Senate Bill 2, Seventy-Seventh Legislature (2001), and the Texas Water Code, as amended. The Authority desires to purchase potable treated surface water from Houston for distribution and use for domestic, commercial, and other purposes.

Houston is authorized to enter into this Contract pursuant to its Home Rule Charter and Section 402.021 of the Texas Local Government Code.

The Authority is authorized to enter into this Contract pursuant to the provisions of the Texas Water Code, as amended.

Houston, as the regional water supplier and principal owner of surface water in Harris County, desires to provide potable treated surface water to the unincorporated area of Harris County to meet the Harris-Galveston Coastal Subsidence District ("HGCSA") requirements for Area Three as defined by the HGCSA's 1999 District Regulatory Plan, as amended.

**NOW, THEREFORE**, for and in consideration of the premises and the mutual covenants and agreements herein contained, the parties hereto do mutually agree as follows:

**ARTICLE I**

**Definitions**

Unless the context requires otherwise, the following terms as used in this Contract shall have meanings as follows:

"Advisory Committee" is defined in Section 8.17.

"Annual Audit" is defined in Section 4.06.

"Annual Interest Payment" is defined in Section 3.03.

"Annual New Untreated Water Facilities Payment" is defined in Section 3.02(c).

"Annual O&M Budget" is defined in Section 4.03.

"Annual Outstanding Debt Service" means the amount of debt service (principal and interest) actually owed by Houston during a Houston fiscal year on any and all bonds, notes, or other obligations for construction and acquisition of New Untreated Water Facilities.

"Authority System" shall mean all facilities owned and operated by the Authority to enable the Authority to receive Water from the Houston System, including without limitation, transmission lines, inter-connection lines, storage facilities, booster pumps, meter vaults, casings, air gap or other backflow prevention controls, valves and flow control devices.

"Commencement of Delivery of Water" shall mean commencement of delivery of Water for consumption and shall not mean delivery of Water for line testing or flushing purposes.

"Existing Untreated Water Facilities" means those facilities listed in Exhibit "A".

"GRP" is defined in Section 8.18.

"Houston System" shall mean all of Houston's Water production, treatment and distribution facilities, including all treatment plants, mains, distribution lines, booster pumps, storage tanks and meter facilities.

"Initial Untreated Water Facilities Demand Allocation" is defined in Section 3.02(a).

"Interest Rate" means the 20 City Municipal Bond Index on the first day of the Houston fiscal year during which the Contract is executed, which the parties hereby agree equals 5.10%.

"Major Rehabilitations" are major capital projects required to maintain and operate the Plant Facilities and Transmission Facilities at their current capacity or as required by applicable regulatory requirements and estimated to cost in excess of \$500,000.

"MGD" shall mean million of gallons per day of Water.

"New Untreated Water Facilities" means any untreated surface water canals, reservoirs, lakes, water rights, or other untreated surface water facilities not listed in Exhibit "A" that are hereafter constructed or acquired by Houston pursuant to Section 3.02(c).

"O&M Expenses" are defined in Section 4.02.

"O&M Reserve" is 25% of the then-current Annual O&M Budget.

"Outstanding Debt" means the amount of principal owed by Houston on any and all bonds, notes, or other obligations for construction and acquisition of Existing Untreated Water Facilities.

"Payment for Existing Untreated Water Facilities" is defined in Sections 3.02 (a), (b), and (c), as applicable.

"Payment for Untreated Water Facilities Costs Avoided" is defined in Section 3.02(c).

"Plant Facilities" means those facilities listed in Exhibit "B".

"Point(s) of Delivery" shall mean the output flanges of the tap(s) on Houston's System that will serve the Authority under the provisions of this Contract, as more particularly identified and described on Exhibit "C" attached hereto and incorporated herein for all purposes.

"Point(s) of Measurement" shall mean the location of the meter(s) at which the Authority's consumption of Water is measured, as more particularly described on Exhibit "C" attached hereto and incorporated herein for all purposes. All Point(s) of Measurement shall be at the Point(s) of Delivery, unless mutually agreed to in writing by the Utility Official and the Authority.

"Reservation" means a written request from the Authority, at the Authority's option, that is approved in writing by the Utility Official, seeking the Utility Official's approval to increase the Authority's then-current Untreated Water Facilities Demand Allocation and/or its Treated Water Facilities Demand Allocation.

"Ten Year Period" is defined in Section 3.02(c).

"Transmission Facilities" are those transmission lines and facilities described and shown on Exhibit "D".

"Treated Water Facilities" is defined in Section 3.03.

"Treated Water Facilities Capital Contribution" is defined in Section 3.03.

"Treated Water Facilities Capital Costs" means the actual costs incurred by Houston to construct or acquire the Treated Water Facilities, including engineering, testing services, construction, construction management, right-of-way, legal and auditing expenses, expenses related to contractor claims, and cost for services of employees of Houston for construction of the Treated Water Facilities.

"Treated Water Facilities Demand Allocation" is defined in Section 3.03.

"Untreated Water Facilities" means the Existing Untreated Water Facilities plus any New Untreated Water Facilities.

"Untreated Water Facilities Demand Allocation" is defined in Section 3.02.

"Utility Official" shall mean the Utility Official of the Department of Public Works and Engineering of Houston, or any other person who may hereafter exercise the functions of said Utility Official.

"Water" shall mean potable treated surface water from the Houston System serving its own inhabitants.

"Water Demand Allocation" shall mean the maximum amount of Water the Authority is entitled to take pursuant to the terms of this Contract and pursuant to the Authority's then current Treated Water Facilities Demand Allocation.

## **ARTICLE II**

### **Construction of Facilities**

#### Section 2.01 Construction by Houston.

Houston shall be responsible for the design, construction, ownership, maintenance and operation of the Untreated Water Facilities and the Treated Water Facilities, which facilities are upstream from the Point(s) of Delivery.

#### Section 2.02 Construction by the Authority of Certain Facilities.

The Authority shall be responsible for the design, construction, ownership, maintenance and operation of all facilities located downstream of the Point(s) of Delivery necessary to enable it to receive Water at the Point(s) of Delivery. The Authority shall obtain the Utility Official's approval of all plans and specifications of the Authority facilities in the Authority System, which approval shall not be unreasonably delayed or withheld.

#### Section 2.03 Time of Completion.

If not already constructed, Houston agrees to proceed with due diligence to construct the facilities described in this Article in order to provide the quantities of Water to the Authority required by this Contract.

#### Section 2.04 Point(s) of Delivery.

The Point(s) of Delivery for Water sold under this Contract shall be located at the physical point(s) of connection between the Houston System and the Authority System shown on Exhibit "C". Additional Point(s) of Delivery and Point(s) of Measurement may be added from time to time, by mutual agreement of the Authority and the Utility Official.

## **ARTICLE III**

### **Sale and Delivery of Water**

#### Section 3.01 Delivery of Water.

Subject to the terms and conditions of this Contract, beginning January 1, 2010, and continuing thereafter, Houston shall deliver and make available to the Authority at the Point(s) of Delivery the amount of Water that equals the Water Demand Allocation. If for any reason the Authority takes more Water than its Water Demand Allocation during any given day, the



Authority shall pay Houston for operation and maintenance charges associated with such excess Water pursuant to Article IV of this Contract but will not be deemed to have increased its Untreated Water Facilities Demand Allocation or Treated Water Facilities Demand Allocation.

The Authority may, but is not obligated to, purchase Water from Houston in order to satisfy the Authority's year 2020 and year 2030 HGCSO conversion requirements. Currently, the Authority's total Water need is projected to be 31 MGD for the year 2010, 89 MGD for the year 2020 and 90 MGD for the year 2030. In the event the Authority purchases such Water from Houston by increasing its Water Demand Allocation by Reservation, the cost sharing formulas and methods of calculating payments by the Authority to Houston that are provided in this Article III shall apply.

The Utility Official shall send the Authority written approval of any Authority Reservation request within ninety (90) days of receipt of same if Houston at the time of the Reservation request has sufficient capacity to serve the increase requested by the Authority. If Houston does not at that time have sufficient capacity to serve the increase requested by the Authority, the Utility Official shall send a written rejection of such Reservation request to the Authority within ninety (90) days of receipt of same, which rejection shall also advise the Authority of what new facilities are necessary to serve the requested Reservation. Unless the Utility Official agrees to a lesser period, the Authority shall provide a Reservation request at least five (5) years prior to the date the Authority requires the increase of its then-current Untreated Water Facilities Demand Allocation and/or its Treated Water Facilities Demand Allocation. The Utility Official shall provide the Authority with a copy of any Reservation request submitted by the West Harris County Regional Water Authority within twenty (20) days of the Utility Official's receipt of same.

Section 3.02 Untreated Water Capital Costs.

Untreated Water Facilities Demand Allocation shall mean 31 MGD; provided, however, that in the event the Authority increases its Untreated Water Facilities Demand Allocation pursuant to the terms of this Contract, then Untreated Water Facilities Demand Allocation shall mean such total increased amount.

Section 3.02(a) Initial Untreated Water Facilities Demand Allocation.

On no more than three (3) occasions prior to the year 2010, the Authority may, at its option, purchase any portion(s) of its 31 MGD Untreated Water Facilities Demand Allocation (the "Initial Untreated Water Facilities Demand Allocation") by payment to Houston of the Payment for Existing Untreated Water Facilities pursuant to this Section 3.02(a). The Authority

shall be obligated to purchase all of its Initial Untreated Water Facilities Demand Allocation no later than December 31, 2009, by payment to Houston of the Payment for Existing Untreated Water Facilities pursuant to this Section 3.02(a). The Payment for Existing Untreated Water Facilities under this Section 3.02(a) shall be calculated as follows:

Payment for Existing Untreated Water Facilities = (A/B)C

Where: "A" is the portion (in MGD) of the Initial Untreated Water Facilities Demand Allocation to be purchased.

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year ending June 30, 2001, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities listed in Exhibit "A".

The Authority shall make the Payment for Existing Untreated Water Facilities to Houston for the Initial Untreated Water Facilities Demand Allocation, according to the above formula, upon the Authority's receipt of written notice from Houston showing the amount of such payment and the calculation therefor, but no earlier than the date of commencement of delivery of such Initial Untreated Water Facilities Demand Allocation. Effective immediately upon the Authority's payment for the Initial Untreated Water Facilities Demand Allocation, the Authority shall be entitled to take such Water.

In the event the Authority, as indicated by a written notice from the Authority to Houston, seeks to pay Houston the Payment for Existing Untreated Water Facilities over a maximum period of fifteen (15) years (with interest) in lieu of a lump sum payment, the Authority and the Utility Official shall in good faith negotiate a separate written agreement providing for such payment terms. If the Authority and the Utility Official are unable to enter into a separate written agreement upon terms mutually agreeable to both parties, then the Authority shall be required to pay the Payment for Existing Untreated Water Facilities to Houston as a lump sum payment.

In the event Houston constructs or acquires New Untreated Water Facilities for any reason, the Authority shall, in addition to the Payment for Existing Untreated Water Facilities paid under this Section 3.02(a), owe Houston the Annual New Untreated Water Facilities Payment, as provided in Section 3.02(c) (2).

Exhibit "E" hereto includes: (i) the Initial Untreated Water Facilities Demand Allocation to be purchased by the Authority, (ii) the Outstanding Debt (as of June 30, 2001); and (iii) the total amount (in MGD) of factor "B" for the calculation of the Payment for Existing Untreated Water Facilities under this Section 3.02(a).

Section 3.02(b) Reservation Not Requiring Construction of New Untreated Water Facilities.

In the event the Authority submits a Reservation request on or after January 1, 2010, to the Utility Official for an increase in its Untreated Water Facilities Demand Allocation and Houston then has capacity available in the Existing Untreated Water Facilities to serve such increase, the Utility Official shall, within ninety (90) days of the Authority's request for the Reservation, send written approval of such Reservation request to the Authority. For the approved Reservation, the Authority shall owe Houston a Payment for Existing Untreated Water Facilities under this Section 3.02(b), calculated as follows:

Payment for Existing Untreated Water Facilities = (A/B)C

Where: "A" is the amount (in MGD) of the increase of the Authority's Untreated Water Facilities Demand Allocation pursuant to a Reservation under this Section 3.02(b).

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year that precedes the fiscal year during which the Authority's Reservation request is approved in writing by the Utility Official, including such untreated surface water received at Houston's water treatment plants as well as billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities listed in Exhibit "A" as of the first day of Houston's fiscal year in which the Authority's Reservation request is approved in writing by the Utility Official.

If the Authority submits a Reservation request to the Utility Official prior to January 1, 2010, and Houston then has capacity available in the Existing Untreated Water Facilities to serve such increase, then, for purposes of calculating the Payment for Existing Untreated Water Facilities under this Section 3.02(b) for such Reservation only, factors "B" and "C" of Section 3.02(a) shall be used instead of factors "B" and "C" of this Section 3.02(b).

The Authority shall pay Houston the Payment for Existing Untreated Water Facilities under this Section 3.02(b) no later than sixty (60) days after the Authority sends written notice to Houston that the Authority requires Water from its Reservation made pursuant to this Section

3.02(b). The Authority shall send notice to Houston that the Authority requires Water from its Reservation no later than five (5) years after the date of the Utility Official's written approval of the Reservation.

In the event the Authority, as indicated by a written notice from the Authority to Houston, seeks to pay Houston the Payment for Existing Untreated Water Facilities over a maximum period of fifteen (15) years (with interest) in lieu of a lump sum payment, the Authority and the Utility Official shall in good faith negotiate a separate written agreement providing for such payment terms. If the Authority and the Utility Official are unable to enter into a separate written agreement upon terms mutually agreeable to both parties, then the Authority shall be required to pay the Payment for Existing Untreated Water Facilities to Houston as a lump sum payment.

In the event Houston constructs or acquires New Untreated Water Facilities for any reason, the Authority shall, in addition to the Payment for Existing Untreated Water Facilities, if any, paid under this Section 3.02(b), owe Houston the Annual New Untreated Water Facilities Payment, as provided in Section 3.02(c)(2).

Section 3.02(c) New Untreated Water Facilities.

In the event the Authority sends a Reservation request to the Utility Official for an increase in its Untreated Water Facilities Demand Allocation and Houston does not then have capacity available in the Existing Untreated Water Facilities to serve such increase, the Utility Official shall send a written rejection of such Reservation request to the Authority within ninety (90) days of the Utility Official's receipt of such Reservation request, which rejection shall also advise the Authority of what New Untreated Water Facilities are necessary to serve the requested Reservation. If the Authority thereafter seeks to increase its Untreated Water Facilities Demand Allocation, it shall send written notice to the Utility Official of the Authority's need for New Untreated Water Facilities and the amount (in MGD) of its requested Reservation. After receipt of such Authority notice, Houston shall promptly construct or acquire New Untreated Water Facilities and the Authority shall owe Houston the Payment for Existing Untreated Water Facilities plus the Annual New Untreated Water Facilities Payment under this Section 3.02(c). Upon completion of the New Untreated Water Facilities necessary to serve the Authority's requested Reservation, the Authority's Reservation request shall be deemed approved by the Utility Official.

In the event Houston constructs or acquires New Untreated Water Facilities for any reason but the Authority does not desire capacity in the New Untreated Water Facilities and accordingly does not make a Reservation request under this Section 3.02(c), the Authority shall owe Houston the Annual New Untreated Water Facilities Payment under Section 3.02(c)(2) (based on the Authority's then-current Untreated Water Facilities Demand Allocation), but the Authority shall not owe Houston the Payment for Existing Untreated Water Facilities under Section 3.02(c)(1).

The Payment for Existing Untreated Water Facilities and the Annual New Untreated Water Facilities Payment under this Section 3.02(c) shall be calculated based on the formula:

$$(A/B)C + (D/E)F$$

and shall be calculated as follows:

(1) Payment for Existing Untreated Water Facilities =  $(A/B)C$

Where: "A" is the amount (in MGD) of the increase of the Authority's Untreated Water Facilities Demand Allocation pursuant to a Reservation under this Section 3.02(c).

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year that precedes the fiscal year during which the Utility Official's written statement regarding lack of available capacity is issued, including such untreated surface water received at Houston's water treatment plants as well as billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities listed in Exhibit "A" as of the first day of Houston's fiscal year in which the Utility Official's written statement regarding lack of available capacity is issued.

(2) Annual New Untreated Water Facilities Payment =  $(D/E)F$

Where: "D" is the then-current Untreated Water Facilities Demand Allocation, plus the amount, if any, (in MGD) that the Authority seeks to increase its Untreated Water Facilities Demand Allocation upon completion of the New Untreated Water Facilities, as identified in the applicable Authority Reservation request, if any, pursuant to this Section 3.02(c).

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during the Houston fiscal year that precedes the date Houston calculates the Annual New Untreated Water Facilities Payment, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's

untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"F" is the Annual Outstanding Debt Service for all New Untreated Water Facilities as of the first day of the Houston fiscal year in which Houston calculates the Annual New Untreated Water Facilities Payment.

The Authority shall pay Houston the Payment for Existing Untreated Water Facilities, if due under this Section 3.02(c), no later than sixty (60) days after the Authority receives written certification from the Utility Official that construction of the New Untreated Water Facilities necessary to serve the Authority's requested Reservation is complete.

In the event the Authority, as indicated by a written notice from the Authority to Houston, seeks to pay Houston the Payment for Existing Untreated Water Facilities over a maximum period of fifteen (15) years (with interest) in lieu of a lump sum payment, the Authority and the Utility Official shall in good faith negotiate a separate written agreement providing for such payment terms. If the Authority and the Utility Official are unable to enter into a separate written agreement upon terms mutually agreeable to both parties, then the Authority shall be required to pay the Payment for Existing Untreated Water Facilities to Houston as a lump sum payment.

Within ninety (90) days after Houston's first issuance of bonds, notes, or other obligations to finance any New Untreated Water Facilities pursuant to this Section 3.02(c), Houston shall calculate the Annual New Untreated Water Facilities Payment according to the formula above and send written notice to the Authority of Houston's calculation and the amount of the payment due from the Authority for the fiscal year in which Houston issues such bonds, notes or other obligations. For each Houston fiscal year thereafter, Houston shall calculate the Annual New Untreated Water Facilities Payment according to the above formula and send written notice to the Authority of Houston's calculation and the amount of the payment due from the Authority within ninety (90) days of the last day of the previous Houston fiscal year. Each year, the Authority shall pay Houston the Annual Untreated Water Facilities Payment within sixty (60) days of its receipt of such notice from Houston. The Authority shall owe Houston the Annual Untreated Water Facilities Payment each year during the life of the Houston bonds, notes or other obligations used to finance the New Untreated Water Facilities or until this Contract is no longer in effect, whichever occurs first. To assist the Authority in its financial planning, Houston shall, prior to the last day of each Houston fiscal year, send a written statement to the Authority

of Houston's reasonable estimate of the Annual Outstanding Debt Service for the following three (3) Houston fiscal years.

Houston shall maintain each Annual New Untreated Water Facilities Payment in an interest-bearing account, which interest shall be credited to the account of the Authority. Houston shall use the Annual New Untreated Water Facilities Payments, and interest accrued thereon, only for the purpose of paying Annual Outstanding Debt Service. Within one hundred eighty (180) days of the last day of each Houston fiscal year, Houston shall prepare an accounting of the Annual Outstanding Debt Service actually paid by Houston on the New Untreated Water Facilities during such fiscal year. Houston shall engage an independent certified public accounting firm to audit such accounting. Houston and the Authority agree to "true-up" the Annual New Untreated Water Facilities Payment made by the Authority such that if the Authority has underpaid, taking into account interest accrued, it will pay Houston such shortfall within sixty (60) days of receiving the final audit, and Houston agrees to refund to the Authority any overpayment, taking into account interest accrued, within sixty (60) days of Houston receiving the final audit if the Authority overpaid.

In the event Houston intends to construct or acquire New Untreated Water Facilities for any reason, Houston shall send written notice to the Authority of such intent at least one hundred eighty (180) days before Houston's first issuance of bonds, notes or other obligations to finance such New Untreated Water Facilities. If the Authority desires to increase its Untreated Water Facilities Demand Allocation, it shall submit a Reservation request pursuant to this Section 3.02(c) within ninety (90) days after receipt of such notice of intent from Houston.

If the Authority's Untreated Water Facilities Demand Allocation is increased pursuant to a Reservation under this Section 3.02(c), then the payment for all subsequent Reservations of the Untreated Water Facilities Demand Allocation (regardless of whether or not they require construction of New Untreated Water Facilities) shall be calculated and made pursuant to the hereinbefore formulas of this Section 3.02(c) and not Sections 3.02(a) or (b). If within ten (10) years after Houston's first issuance of bonds, notes, or other obligations to finance New Untreated Water Facilities pursuant to this Section 3.02(c) (the "Ten Year Period"), the Authority submits a Reservation request that does not require the construction of New Untreated Water Facilities, the Authority shall pay Houston the Payment for Untreated Water Facilities Costs Avoided. The Payment for Untreated Water Facilities Costs Avoided shall equal the total dollar

amount, without interest or penalty, of the Payment for Existing Untreated Water Facilities and the total accrued Annual New Untreated Water Facilities Payments which would have been paid by the Authority, according to the hereinbefore formulas of this Section 3.02(c), had the Authority made a Reservation request for such increase prior to Houston's first issuance of bonds, notes, or other obligations to finance the New Untreated Water Facilities. The Payment for Untreated Water Facilities Costs Avoided shall be made to Houston within one hundred twenty (120) days of the Authority's receipt of the Utility Official's approval of such later Reservation request. The Authority shall not owe Houston the Payment for Untreated Water Facilities Costs Avoided if: (i) the Authority submits a Reservation request within the Ten Year Period that requires the construction of New Untreated Water Facilities; or (ii) the Authority submits a Reservation request, regardless of whether or not it requires construction of New Untreated Water Facilities, after the Ten Year Period.

Section 3.03 Treated Water Capital Costs.

Treated Water Facilities Demand Allocation shall mean 31 MGD; provided, however, that in the event the Authority increases its Treated Water Facilities Demand Allocation pursuant to the terms of this Contract, then Treated Water Facilities Demand Allocation shall mean such total increased amount.

Except as provided elsewhere in this Section 3.03, the Authority shall pay Houston its pro-rata Treated Water Facilities Capital Contribution for the Plant Facilities and the Transmission Facilities (collectively, the "Treated Water Facilities") as follows: (i) for Treated Water Facilities constructed prior to the effective date of this Contract or those Treated Water Facilities listed in Exhibits "B" and "D", upon the later of (A) ninety (90) days after the effective date of this Contract or (B) the date that the Authority's GRP is certified by the HGCSO, but in no event later than July 1, 2003; (ii) for Treated Water Facilities constructed prior to the date of the Utility Official's written consent of any Reservation request from the Authority, no later than sixty (60) days after the Authority receives the Utility Official's written consent for the Authority to increase its Treated Water Facilities Demand Allocation; and (iii) for Treated Water Facilities not constructed prior to the date of the Utility Official's written consent of any Reservation request from the Authority, sixty (60) days after receipt of the Utility Official's reasonable estimate of the Treated Water Facilities Capital Contribution.

The cost for any Reservation of Treated Water Facilities Demand Allocation shall be in accordance with the formulas set forth in this Section 3.03. Upon request from the Authority,



Houston shall promptly provide the Authority with Houston's cost calculation, in accordance with the cost formulas in this Section 3.03, for any Reservation of the Treated Water Facilities Demand Allocation, that at that time may be under consideration by the Authority. Any Authority written request for such a Reservation shall include Houston's cost calculation. The Utility Official shall either approve or reject, in writing, the Authority's Reservation request within ninety (90) days after receipt of such request. If the Utility Official fails to approve such request within such ninety (90)-day period, the Reservation request shall be deemed rejected. A Reservation for Treated Water Facilities not constructed prior to the date of the Reservation request must be approved by the Board of Directors for the Authority before Houston will commence design and construction of the designated Treated Water Facilities.

- (1) For Treated Water Facilities that are in service before the effective date of the Contract or the date of any Reservation request, the Authority's pro-rata Treated Water Facilities Capital Contribution is based on the formula:

$$\text{Treated Water Facilities Capital Contribution} = (A - B) \times (C/D)$$

- (2) For Treated Water Facilities that are not in service before the effective date of any Reservation request, the Authority's pro-rata Capital Contribution is based on the formula:

$$\text{Treated Water Facilities Capital Contribution} = A \times (C/D)$$

Where: "A" is the Treated Water Facilities Capital Costs of the Treated Water Facilities.

"B" is the amount of depreciation calculated by applying the 50-year straight line depreciation method for the period of time running between the in-service date of the facilities and the effective date of the Contract, or for any Reservation made by the Authority, the date of such Reservation request (i.e. 2% of Treated Water Facilities Capital Costs per year).

"C" is the Treated Water Facilities Demand Allocation in MGD to be purchased.

"D" is the capacity in MGD of the particular facility. The capacity for transmission lines shall be calculated at a flow rate of 5 feet per second.

The Authority may defer payment of the Treated Water Facilities Capital Contribution for the initial 31 MGD Treated Water Facilities Demand Allocation for the period of time running from the date payment is due pursuant to this Section 3.03 to the date payment is made, but no later than commencement of the delivery of Water, by annually paying Houston an annual interest payment ("Annual Interest Payment"). The Annual Interest Payment shall be calculated by multiplying the Treated Water Facilities Capital Contribution times the Interest Rate. If the Authority does not pay Houston the Treated Water Facilities Capital Contribution on the date payment is due pursuant to this Section 3.03, then the Authority shall pay Houston the Annual Interest Payment on such date and, thereafter, on the anniversary date of such payment until the Authority has paid Houston the Treated Water Facilities Capital Contribution. Because the Annual Interest Payment constitutes the payment of annual interest in advance, in the event the Authority pays Houston the Treated Water Facilities Capital Contribution prior to the anniversary date of any Annual Interest Payment made by the Authority, Houston shall, within sixty (60) days of its receipt of the Treated Water Facilities Capital Contribution, refund to the Authority, with interest at the Interest Rate, the pro-rated portion of such Annual Interest Payment based on the amount of days remaining in such annual period. Houston shall not be required to deliver Water to the Authority until the Authority has paid Houston its Treated Water Facilities Capital Contribution for the Treated Water Facilities Demand Allocation of 31 MGD, plus any interest costs due from the Authority to Houston pursuant to this paragraph.

In the event there is no final design and construction for the Treated Water Facilities on the date that any Reservation request is submitted by the Authority to the Utility Official, the pro-rata Treated Water Facilities Capital Contribution shall be paid in two (2) increments:

(i) For the pro-rata Treated Water Facilities Capital Contribution for design engineering services, including surveys, soils boring and testing, as well as design services, the Utility Official must provide the Authority a reasonable estimate of the pro-rata Treated Water Facilities Capital Contribution for such services based on Houston's contract with the design engineer. The Authority shall deposit with Houston the amount of the Utility Official's reasonable estimate within sixty (60) days of its receipt of such estimate.

(ii) For the pro-rata Treated Water Facilities Capital Contribution for the cost of construction of the Treated Water Facilities, the Utility Official must provide the Authority a reasonable estimate of the pro-rata Treated Water Facilities Capital Contribution for the

construction based on the lowest responsible bid received plus estimated costs for construction management, engineering, testing services and a 15% contingency. The Authority shall deposit with Houston the amount of the Utility Official's reasonable estimate within sixty (60) days of its receipt of such estimate.

All Authority pro-rata Treated Water Facilities Capital Contribution deposits shall be kept by Houston in an account. Houston shall spend money from the account only for Treated Water Facilities Capital Costs and/or debt service.

Within ninety (90) days of the acceptance of the completed construction of the subject Treated Water Facilities, Houston shall cause an accounting to be made of the Treated Water Facilities Capital Costs. Houston shall engage an independent certified public accounting firm to audit its accounting. As soon as the firm has completed the audit, Houston shall submit the audited accounting to the Authority. The accounting shall state the difference between the estimated Treated Water Facilities Capital Costs that were paid by the Authority and the actual Treated Water Facilities Capital Costs.

If the actual Treated Water Facilities Capital Costs, as determined by the audited accounting, are less than the estimated Treated Water Facilities Capital Costs paid by the Authority, resulting in an overpayment by the Authority of its pro-rata share, Houston shall refund such difference with actual interest accrued, within ninety (90) days of the date of the receipt of the accounting by the Authority.

If the actual Treated Water Facilities Capital Costs, as determined by the accounting, are more than the estimated Treated Water Facilities Capital Costs paid by the Authority, resulting in an underpayment by the Authority of its pro-rata share, the Authority shall pay Houston, within ninety (90) days of the date of the receipt of the accounting by the Authority, such difference with interest calculated at the actual interest rate of the debt incurred by Houston in order to pay for such difference, running from the time Houston paid for the Authority's pro-rata share of Treated Water Facilities Capital Costs (resulting from such Authority underpayment) to the time such underpayment is paid to Houston by the Authority.

The Treated Water Facilities applicable to the Authority and the corresponding Treated Water Facilities Capital Contribution calculations for such Treated Water Facilities are shown on Exhibit "F" hereto.

## ARTICLE IV

### Operation and Maintenance Charges

#### Section 4.01 In General.

It is expressly understood by the Authority that it shall directly reimburse Houston on a periodic basis for the expenses incurred in producing and treating the Water delivered to the Authority. The Authority pledges to enact rates and fees for its customers sufficient to pay the O&M Expenses.

#### Section 4.02 O&M Expenses Calculation.

For the purposes of this Contract, the yearly O&M Expenses for the Authority are computed according to the following formula:

$$(A/B \times C) + (A/E \times D) + F$$

Where: "A" is the amount of Water (in millions of gallons) taken by the Authority at the Point(s) of Delivery, as measured by the measuring equipment pursuant to Article VII, during the given year.

"B" is the total amount (in millions of gallons) of Water produced by the Plant Facilities during the given year.

"C" means all costs and expenses incurred by Houston (whether incurred by Houston through its own staff or independent contractors) for the maintenance and operation of the Plant Facilities, including (i) chemicals, labor, power, testing, permits, insurance, and other related costs, necessary for the efficient maintenance and operation of the Plant Facilities in full compliance with this Contract and all applicable regulatory requirements and the preparation costs of the Annual Audit; (ii) necessary repairs and replacements to the Plant Facilities; and (iii) improvements and betterments to maintain the Plant Facilities in proper operation and to comply with this Contract and all applicable regulatory requirements. The above costs and expenses include a proportionate share of administrative costs for management and support, resource management, planning and operations, the Office of the Director of Public Works as well as other indirect costs in the allocation percentage included in Houston's most recent finalized independent rate study. (The portion of such study showing such allocation percentage is attached hereto as Exhibit "G".) At the time of execution of this Contract, this allocation is 27%. Except as provided herein, no cost of Houston's government not directly related to the maintenance and operation of the Plant Facilities shall be included in the factor "C".

"D" means all costs and expenses incurred by Houston (whether incurred by Houston through its own staff or by independent contractors) for the maintenance and operation of the Untreated Water Facilities, including, (i) chemicals, labor, power, testing, permits, insurance, and other related costs, necessary for the efficient maintenance and operation of the Untreated Water Facilities in full compliance with this Contract and all applicable regulatory requirements and the

preparation of costs of the Annual Audit; (ii) necessary repairs and replacements to the Untreated Water Facilities; and (iii) improvements and betterments to maintain the Untreated Water Facilities in proper operation and to comply with this Contract and all applicable regulatory requirements. No cost of Houston's government not directly related to the maintenance and operation of the Untreated Water Facilities shall be included in the factor "D".

"E" is the total amount of untreated surface water (in millions of gallons) sold to Houston's water customers during the given year, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"F" is the Authority's pro rata share of the cost of (i) Major Rehabilitations and (ii) the repair and/or replacement of any portion of the Transmission Facilities. As used in this definition, the ratio for determining the share of the cost borne by the Authority is a fraction, the numerator of which is the Authority's then-current Treated Water Facilities Demand Allocation (in MGD) and the denominator of which is the total capacity (in MGD) of the entire facility subject to the Major Rehabilitation, repair, or replacement. The reasonable cost for such repairs, replacements and/or rehabilitations includes the same classes of costs identified in factor "C" above. Except as provided herein, no cost of Houston's government not directly related to the Major Rehabilitations or the repair and/or replacement of any portion of the Transmission Facilities shall be included in the factor "F". The capacities (in MGD) of the Plant Facilities and Transmission Facilities are shown in Exhibit "H".

#### Section 4.03 Annual O&M Budget.

Ninety (90) days prior to the commencement of delivery of Water under this Contract, and ninety (90) days prior to the beginning of each Houston fiscal year thereafter, Houston shall provide the Authority for its review and comment the proposed Annual O&M Budget showing (i) an estimate of the Authority's O&M Expenses for the coming fiscal year, (ii) the proposed monthly payments to be paid by the Authority for the fiscal year (1/12 of the Annual O&M Budget ), and (iii) the amount of the O&M Reserve. Houston will also include in the proposed and final Annual O&M Budget the estimated water production by the Plant Facilities and the Untreated Water Facilities as well as the anticipated amount of Water to be sold to the Authority.

The Authority will have sixty (60) days to review and comment on the proposed Annual O&M Budget, and Houston agrees to provide such records and cost documents in its possession as the Authority may reasonably require. At the end of the 60-day period Houston will consider the Authority's comments and issue the final Annual O&M Budget ("Annual O&M Budget") and invoice.

Section 4.04 Payments of Authority O&M Expenses.

Within thirty (30) days of its receipt of Houston's invoice and final Annual O&M Budget, the Authority shall pay Houston the O&M Reserve and the first monthly payment of O&M Expenses. Each month thereafter, the Authority shall make monthly payments to Houston in such equal amounts as required in the applicable Annual O&M Budget. Payments shall be due on the first of each month, and any payment more than thirty (30) days late shall bear interest at the rate applicable under Chapter 2251, Texas Government Code. Houston shall maintain the O&M Reserve in an interest-bearing account, which interest shall be credited to the account of the Authority. Any portion of a monthly O&M Expenses payment made by the Authority in excess of the actual monthly O&M Expenses incurred by Houston shall be credited to the account of the Authority in the O&M Reserve.

Houston may use funds from the O&M Reserve only for O&M Expenses. Houston will use the funds out of the O&M Reserve to pay O&M Expenses only if the monthly O&M Expenses payment made by the Authority is less than the actual monthly O&M Expenses incurred by Houston or if the payment of the monthly O&M Expenses is not timely made to Houston by the Authority. Houston may invoice the Authority for any shortfall in the O&M Reserve in order for the O&M Reserve to equal the amount established in the Annual O&M Budget, provided that any such invoice must include an accounting to justify the additional payment to the O&M Reserve. The Authority shall pay such invoices within sixty (60) days of its receipt of Houston's accounting and invoice for replenishment of the O&M Reserve.

Section 4.05 Major Rehabilitations.

Houston shall perform such Major Rehabilitations as necessary for the operation and maintenance of the Plant Facilities and Transmission Facilities. Except for emergencies involving health or safety, Houston shall submit plans and specifications for such Major Rehabilitations to the Authority for review and comment at least sixty (60) days prior to Houston advertising the project for bids. Costs for Major Rehabilitations shall be paid by the Authority in the ratio of its Treated Water Facilities Demand Allocation to the capacity of the facility requiring the Major Rehabilitation, as applicable. Provided, however, the Authority shall never be required to pay for any portion of replacements, additions or improvements to facilities that provide capacity or Water solely to other customers.

Section 4.06 Annual Audit.

Within one hundred eighty (180) days of the close of each Houston fiscal year, Houston shall prepare an accounting of the O&M Expenses ("Annual Audit"). Houston shall engage an

independent certified public accounting firm to audit the accounting of costs of the O&M Expenses. As soon as the firm has completed the audit, Houston shall submit the audited accounting to the Authority. Houston and the Authority agree to "true-up" the previous payments made for O&M Expenses during the fiscal year such that if the Authority has underpaid it will make timely payment of all O&M Expenses owed in the next monthly billing following the audit, and Houston agrees to give credit to the Authority if it has overpaid O&M Expenses for the fiscal year, such credit, including any interest accrued in the O&M Reserve on such overpayments, shall be given on the next monthly billing(s) following the audit.

Houston agrees to provide both the independent auditor and the Authority all expenses, meter readings and cost data required for the audit. The audit must include an itemization for the Authority of all costs and meter recordings used to compute the O&M Expenses.

#### **ARTICLE V**

##### **Term Provision**

This Contract shall be in force and effect from and after the execution hereof by the Houston Controller and shall expire at noon on the fortieth (40th) anniversary of the date of countersignature by Houston's Controller. To the extent authorized by law, as amended, Houston agrees, if requested in writing by the Authority, to execute a written extension of the term of this Contract for an additional twenty (20) years beyond such forty (40) year term. The Houston Mayor shall be authorized to execute such written extension. At such time as this Contract is no longer in force and effect, if requested in writing by the Authority, Houston agrees to continue to provide water services to the Authority upon the payment of reasonable rates and charges therefor which take into account the capital payments paid by the Authority to Houston pursuant to this Contract and subject to the availability of Water. The immediately preceding sentence shall survive the expiration or termination of this Contract.

#### **ARTICLE VI**

##### **Performance by the Parties**

Section 6.01 Construction and Maintenance of Certain Facilities between the Point(s) of Delivery and Point(s) of Measurement.

With respect to any Water handling facilities located between the Point(s) of Delivery and the Point(s) of Measurement shown in Exhibit "C", the Authority and Houston specifically agree:

- (1) That all such facilities, other than the measurement equipment itself, shall be and remain the property of the Authority.

- (2) That the Authority shall take all responsible steps to maintain such facilities and to prevent leaks or discharges from such facilities and shall not suffer, permit, cause or allow any water to be taken or used from such facilities, except through the measuring equipment.
- (3) That the Authority shall repair any such leak or discharge at once upon receiving notice thereof and pay Houston the cost of any Water lost by reason of such a leak or discharge. The Authority shall make payment to Houston for such Water only by Houston including the amount of such Water in the factor "A" defined in Section 4.02. Calculation of the amount of Water lost by reason of such leak shall be estimated on a basis mutually agreed to between the Authority and the Utility Official.
- (4) That the Authority shall correct or repair any damage caused by any such leak or discharge.

Section 6.02 Tap and Meter.

The Authority shall construct, at its sole cost, water connection taps at the Point(s) of Delivery and set the water meter(s) at the Point(s) of Measurement under the mutual approval and inspection of the Utility Official and the Authority. The Authority also agrees to provide a telephone and electronic connection accessible at the Point(s) of Measurement and allow Houston to connect remote meter reading equipment to such telephone line.

Before any connection, the Authority System shall be chlorinated in accordance with requirements approved by the Utility Official.

Section 6.03 Delivery Limitations.

The Authority shall not be guaranteed any specific quantity or pressure of Water whenever Houston's water supply is limited or when Houston's equipment may become inoperative due to unforeseen breakdown or scheduled maintenance and repairs. Should delivery of Water be limited as a result of scheduled maintenance or repairs, Houston shall provide written notification of such scheduled maintenance or repairs at least 30 days prior to same. Houston is in no case to be held to any liability for failure to furnish any specific amount or pressure of Water; provided, however, that Houston shall use reasonable efforts to deliver the Water required by this Contract and to maintain sufficient pressure at the Point(s) of Delivery in order for the Authority to receive the Water it is entitled to under this Contract. Notwithstanding the other provisions of this Section 6.03, Houston may reduce the supply of Water only in



accordance with the laws of the State of Texas, particularly Section 11.039(a) of the Texas Water Code, as may be amended from time to time.

Section 6.04 Backflow Requirements.

On or before the commencement of delivery of Water to the Authority pursuant to this Contract, the Authority shall have installed an air gap or backflow prevention device, in accordance with the specifications approved by the Utility Official, at either: (i) each Point of Delivery; or (ii) at each location where the Authority System connects to the water system of an Authority customer. The Authority and the Utility Official shall agree in writing as to the location of all air gaps or backflow prevention devices installed by the Authority.

Section 6.05 Water Conservation.

The Authority shall approve and implement a water conservation program as required by the Texas Commission on Environmental Quality pursuant to 30 T.A.C. § 288, as may be amended from time to time.

Section 6.06 Inspections.

The Authority agrees that Houston may conduct inspections from time to time to determine that no conditions exist in the Authority System and connections to its customers' premises which would or might adversely affect the Houston System. Houston shall notify the Authority should such condition exist. Such notification shall be provided in writing and shall be made within forty-eight (48) hours of discovering any such condition.

Section 6.07 Inspection of Records.

With reasonable notice, either party shall allow the other the opportunity to examine records from the other party for the purpose of evaluating the costs for which payments are requested or required hereunder.

Section 6.08 Payment.

In the event the Authority fails to timely tender payment of any amount within the periods established herein, and such failure continues for sixty (60) days after the notice to the Authority of such default, Houston may suspend delivery of Water, but the exercise of such right shall be in addition to any other remedy available to Houston.

Section 6.09 Title to and Responsibility for Water.

Title to, possession, and control of Water shall remain with Houston until it passes through the Point(s) of Delivery, where title to, possession, and control of the Water shall pass from Houston to the Authority.

**ARTICLE VII**  
**Measuring Equipment**

Section 7.01 In General.

At the Authority's own cost and expense, the Authority shall provide for installation at the Point(s) of Measurement, measuring equipment, properly equipped with meters and devices of standard type for measuring accurately the quantity of Water delivered under this Contract, with ability to measure the quantity of Water delivered within the accuracy tolerance of two percent (2%). Such measuring equipment shall be approved by the Authority and the Utility Official, but shall become the property of Houston after installation.

Section 7.02 Access.

During any reasonable hours, Houston and the Authority shall have access to all measuring equipment. The Authority shall have access to all records pertinent to determining the measurement and quantity of Water actually delivered, but the reading of the meters for purposes of the calculation of any payment required from the Authority under this Contract shall be done by Houston.

Section 7.03 Testing of Meter.

Houston shall maintain the measuring equipment within the accuracy tolerance specified in Section 7.04 by periodic tests. Houston shall conduct such tests at least once every twelve (12) months and shall notify the Authority at least forty-eight (48) hours in advance of the time and location at which such tests are to be made. If the Authority requests an additional test within twelve (12) months, Houston shall charge the Authority an amount equal to Houston's cost to perform such test, unless the test reveals that the equipment registers greater than one hundred and two percent (102%) for a given flow rate. In addition, the Authority shall have the right to independently check, at its own cost, said measuring equipment at any time upon forty-eight (48) hours written notification to the Utility Official, providing the opportunity for the Utility Official to witness such tests.

Section 7.04 Results of Tests.

Should the test of the measuring equipment in question show that the equipment registers either more than one hundred two percent (102%) or less than ninety-five percent (95%) of the Water delivered for a given flow rate, the total quantity of Water delivered to the Authority will be deemed to be the average daily consumption as measured by the measuring equipment when in working order, and the meter shall be calibrated to the manufacturer's specifications (in the case of Venturi meters) or the AWWA specifications (for all other types of meters) for the given

rate of flow, or replaced by Houston with accurate measuring equipment that is tested before it is placed in service. This adjustment shall be for a period extending back to the time when the inaccuracy began, if such time is ascertainable; and if such time is not ascertainable, for a period extending back to the last test of the measuring equipment or one hundred twenty (120) days, whichever is shorter.

As used in this paragraph, the expression "given rate of flow" means one of the following selected by the Utility Official for each calibration or test:

- (1) the total quantity of Water delivered during the preceding period (usually a calendar month) as reflected by the totalizer, converted to gallons per minute;
- (2) high, low, and intermediate rates of flow in the flow range, as reflected by the flow recording devices; or
- (3) AWWA-specified test flow rates for that size and type of meter.

Section 7.05 Disputes as to Testing.

In the event of a dispute between Houston and the Authority as to the accuracy of the testing equipment used by Houston to conduct the accuracy test, an independent check may be mutually agreed upon between the Authority and the Utility Official to be conducted by an independent measuring equipment company suitable to both the Authority and the Utility Official. The cost of such test will be at the Authority's sole expense.

The Utility Official shall accept the test results of the independent measuring equipment company, provided that the calibration procedure and test equipment are mutually agreeable to the Authority and to the Utility Official.

Section 7.06 Check Meters.

The Authority may install, at its own cost and expense, such check meters in the Authority's pipeline; but Houston shall have the right of ingress and egress to such check meters during all reasonable hours; provided, however, that billing computations shall be on the basis of the results of the measuring equipment set forth above.

## **ARTICLE VIII**

### **Miscellaneous Provisions**

Section 8.01 Quality of Water.

Houston shall provide Water meeting all applicable Texas and Federal regulations regarding water quality, including the Safe Drinking Water Act, as same may be amended from time to time.

EXCEPT AS PROVIDED IN SECTIONS 6.03 AND 8.01, HOUSTON MAKES NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE QUALITY OR DELIVERY PRESSURE OF THE WATER, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

THE AUTHORITY HEREBY RELEASES AND DISCHARGES HOUSTON FROM ANY AND ALL FINES, DEMANDS, JUDGMENTS, LIABILITIES OR CLAIMS ARISING BY REASON OF OR IN CONNECTION WITH THE DELIVERY OF WATER WHICH MEETS THE REQUIREMENTS OF SECTIONS 6.03 AND 8.01.

Section 8.02 Ingress and Egress.

During the term of this Contract, and upon the giving of prior notification to the Authority, Houston shall have the right of ingress and egress in, upon, under and over any and all land, easements and rights-of-way of the Authority on which Houston, with the Authority's consent, constructs facilities to deliver Water to the Authority.

Section 8.03 Assignments.

This Contract shall bind and benefit the respective parties and their legal successors, but shall not otherwise be assignable, in whole or in part, by either party without first obtaining written consent of the other. "Assignment" as used herein means assignment in law or otherwise.

Section 8.04 Subject to Law.

This Contract shall be subject to all present and future valid laws, orders, rules and regulations of the United States of America, the State of Texas, any regulatory body having jurisdiction and the Charter and Ordinances (to the extent the Ordinances are not inconsistent with this Contract) of the City of Houston, Texas. In order to protect the Houston System it is specifically agreed that the Authority System shall be constructed and operated to comply with the rules promulgated by the Texas Commission on Environmental Quality, or any successor agency, the Houston Plumbing Code, and the policy of requirements of the Utility Official regarding backflow prevention and cross connections. Should a condition in violation of these requirements be discovered, the Authority shall promptly cure same.

Section 8.05 No Additional Waiver Implied.

The failure of either party hereto to insist, in any one or more instances, upon performance of any of the terms, covenants or conditions of this Contract, shall not be construed as a waiver or relinquishment of the future performance of any such term, covenant or condition

by the other party hereto, but the obligation of such other party with respect to such future performance shall continue in full force and effect.

Section 8.06 Merger.

This instrument contains all the agreements made between the parties.

Section 8.07 Notices.

Until the Authority is otherwise notified in writing by Houston, the address of Houston is and shall remain as follows:

City of Houston  
Utility Official of Public Works and Engineering Department  
P.O. Box 1560  
Houston, Texas 77251-1560

Until Houston is otherwise notified in writing by the Authority, the address of the Authority is and shall remain as follows:

North Harris County Regional Water Authority  
c/o General Manager  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

All written notices, statements and payments required or permitted to be given under this Contract from one party to the other shall be deemed given by the deposit in a United States Postal Service mailbox or receptacle of certified or registered mail, with proper postage affixed thereto, addressed to the respective other party at the address set forth above or at such other address as the parties respectively shall designate by written notice.

Section 8.08 Authorship.

The parties agree that this Contract shall not be construed in favor of or against either party on the basis that the party did or did not author this Contract.

Section 8.09 Parties in Interest.

This Contract shall be for the sole and exclusive benefit of the parties hereto and shall not be construed to confer any rights upon any third party. Houston shall never be subject to any liability in damages to any customer of the Authority for any failure to perform under this Contract.

Section 8.10 Sale of Water Outside Boundaries.

In entering into this Contract the parties contemplate that the Authority will sell the water to inhabitants and commercial customers within the Authority. Therefore, the Authority may sell Water purchased hereunder outside its boundaries only if such sale is approved in writing by the

Utility Official. The Utility Official shall grant any such request if the area is outside Houston's city limits and is not then provided Water service by Houston.

Section 8.11 Captions.

The captions appearing at the first of each numbered section in this Contract are inserted and included solely for convenience and shall never be considered or given any effect in construing this Contract, or any provisions hereof, or in connection with the duties, obligations, or liabilities of the respective parties hereto or in ascertaining intent, if any questions of intent should arise.

Section 8.12 Enforcement.

The City Attorney or his or her designee shall have the right to enforce all legal rights and obligations under this Contract without further authorization.

Section 8.13 Approvals.

Unless otherwise provided for herein, any consent or approval of the parties shall be made by the governing body of each party.

Section 8.14 Force Majeure.

In the event either party is rendered unable, wholly or in part, by Force Majeure, to carry out any of its obligations under this Contract, it is agreed that upon such party's giving notice and full particulars of such Force Majeure in writing to the other party as soon as possible after the occurrence of the Force Majeure, the obligations of the party giving such notice, to the extent it is affected by Force Majeure and to the extent that due diligence is being used to resume performance, shall be suspended for the duration of the Force Majeure. Such cause shall, as far as possible, be remedied with all reasonable dispatch.

Section 8.15 Force Majeure Defined.

The term "Force Majeure," as used herein, shall include, but not be limited to, acts of God, strikes, lockouts or other industrial disturbances, acts of the public enemy, war, blockades, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, droughts, tornadoes, hurricanes, arrests and restraints of government and people, explosions, breakage or damage to machinery, pipelines or canals, and any other incapacities of either party, whether similar to those enumerated or otherwise, and not within the control of the party claiming such inability, which by the exercise of due diligence and care such party could not have avoided.

Section 8.16 Default and Remedies.

Default shall occur only in the event either party fails to adhere to its respective obligations hereunder. In such event, the non-defaulting party shall give the defaulting party: (i) written notice describing such default and the necessary cure therefor; and (ii) the opportunity to cure such default within no less than thirty (30) days of receipt of such notice. If the default is cured within the specified time period to the satisfaction of the non-defaulting party, then no further action shall be taken by the non-defaulting party. If the default is not cured within the specified time period to the satisfaction of the non-defaulting party, the non-defaulting party may pursue any available remedies existing at law or in equity. This Section 8.16 shall not be considered as specifying the exclusive remedy or procedure for remedy for any default, and all remedies existing at law and in equity are to be available to either party; provided, however, that the parties may submit their dispute in good faith to non-binding mediation, the costs of which will be shared equally by the parties, prior to either party filing suit for any default under this Contract.

Section 8.17 Advisory Committee.

Houston shall establish an Advisory Committee comprised of: (i) one (1) representative of Houston, selected by the Utility Official; (ii) one (1) representative of the Authority, selected by the Authority; and (iii) one (1) representative of the West Harris County Regional Water Authority. Such representatives may be members of the governing bodies of such entities or such other persons as such entities may designate. The function of the Advisory Committee shall be to inform and consult with Houston concerning: (i) Annual O&M Budget matters, (ii) surface water system operational issues, (iii) upcoming or ongoing surface water projects, (iv) long-term surface water planning issues, and (v) other surface water related issues. The Advisory Committee shall make reasonable efforts to meet at least once per calendar year.

Section 8.18 Responsibility for Groundwater Reduction Plan.

The Authority shall be responsible for adopting, obtaining HGCSO approval of and administering its Groundwater Reduction Plan (the "GRP"). Houston shall be responsible for adopting, obtaining HGCSO approval of and administering its GRP.

Section 8.19 Payment Dates.

If the Authority and the Utility Official mutually agree in writing, the due dates of any payments due under this Contract within any particular calendar year may be modified such that such payments become due on the same date within each calendar year.

Section 8.20 Severability.

The provisions of this Contract are severable, and if any provision or part of this Contract or the application thereof to any person or circumstance shall ever be held by any court of competent jurisdiction to be invalid or unconstitutional for any reason, the remainder of this Contract and the application of such provision or part of this Contract to other persons or circumstances shall not be affected thereby.

[EXECUTION PAGE FOLLOWS]



IN WITNESS WHEREOF, the parties hereto have executed this Contract in multiple copies, each of which shall be deemed to be an original, effective on the date of countersignature indicated below.

"Houston"

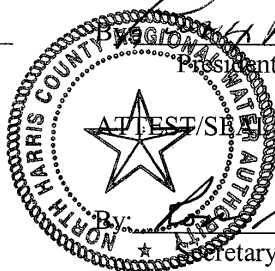
"Authority"

CITY OF HOUSTON, TEXAS

NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

By: Lee P. Brown  
Mayor [Signature]

By: [Signature]  
President, Board of Directors  
By: [Signature]  
Secretary, Board of Directors



Executed for and on behalf of City pursuant to authority granted by the City Council Ordinance No. 2002-1123 passed Dec 16, 2002, a copy of which is attached hereto for reference.

DATE APPROVED: 12-08-02

ATTEST/SEAL

[Signature]  
City Secretary

APPROVED:

By: [Signature]  
General Manager of the Authority

APPROVED:

[Signature]  
Director, Department of Public Works and Engineering

APPROVED AS TO FORM:

By: [Signature]  
General Counsel to the Authority

APPROVED AS TO FORM:

[Signature]  
Sr. Assistant City Attorney  
L.D. File No. 80-99041-01

COUNTERSIGNED BY:

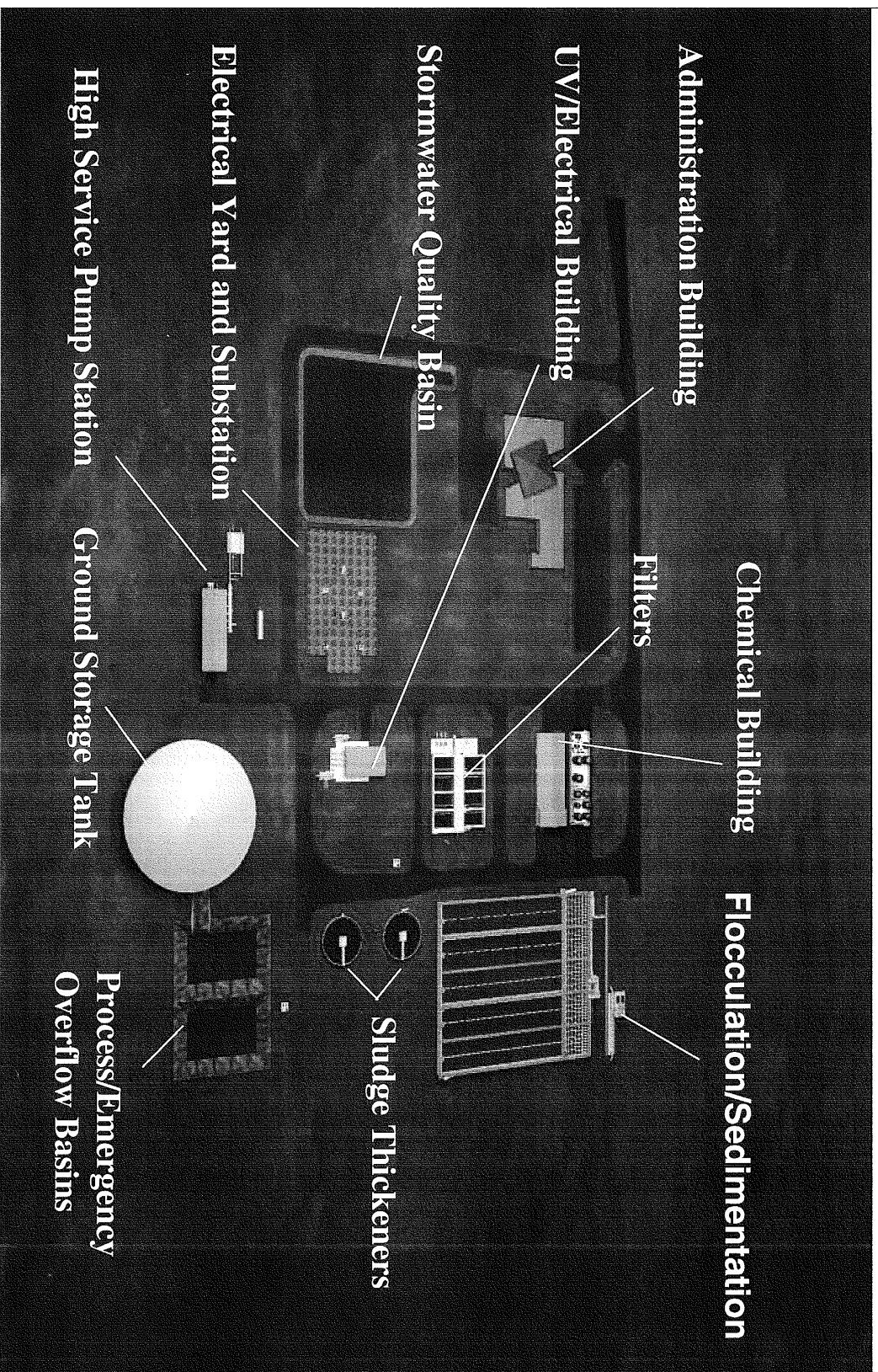
[Signature]  
City Controller

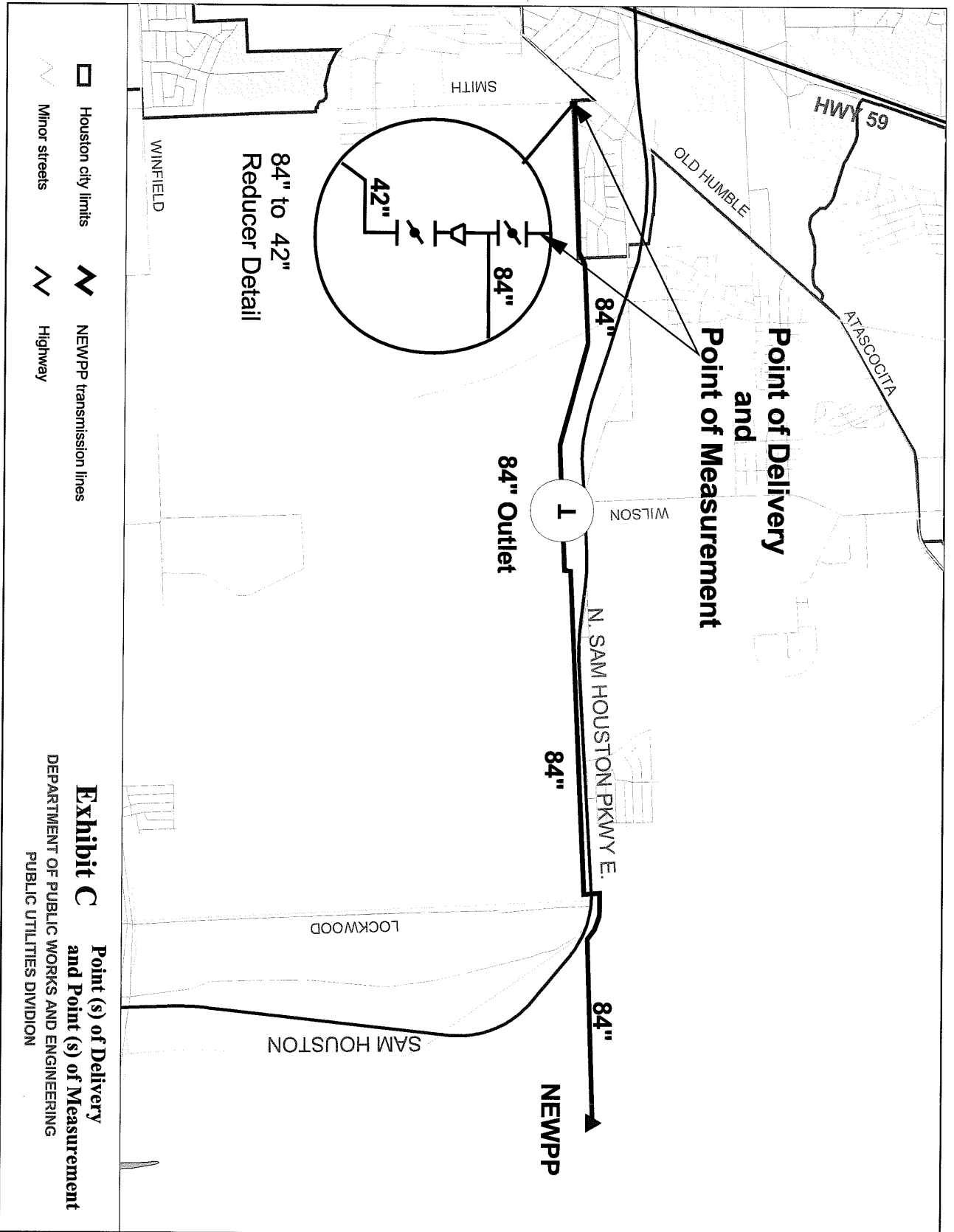
DATE COUNTERSIGNED: 12/16/02

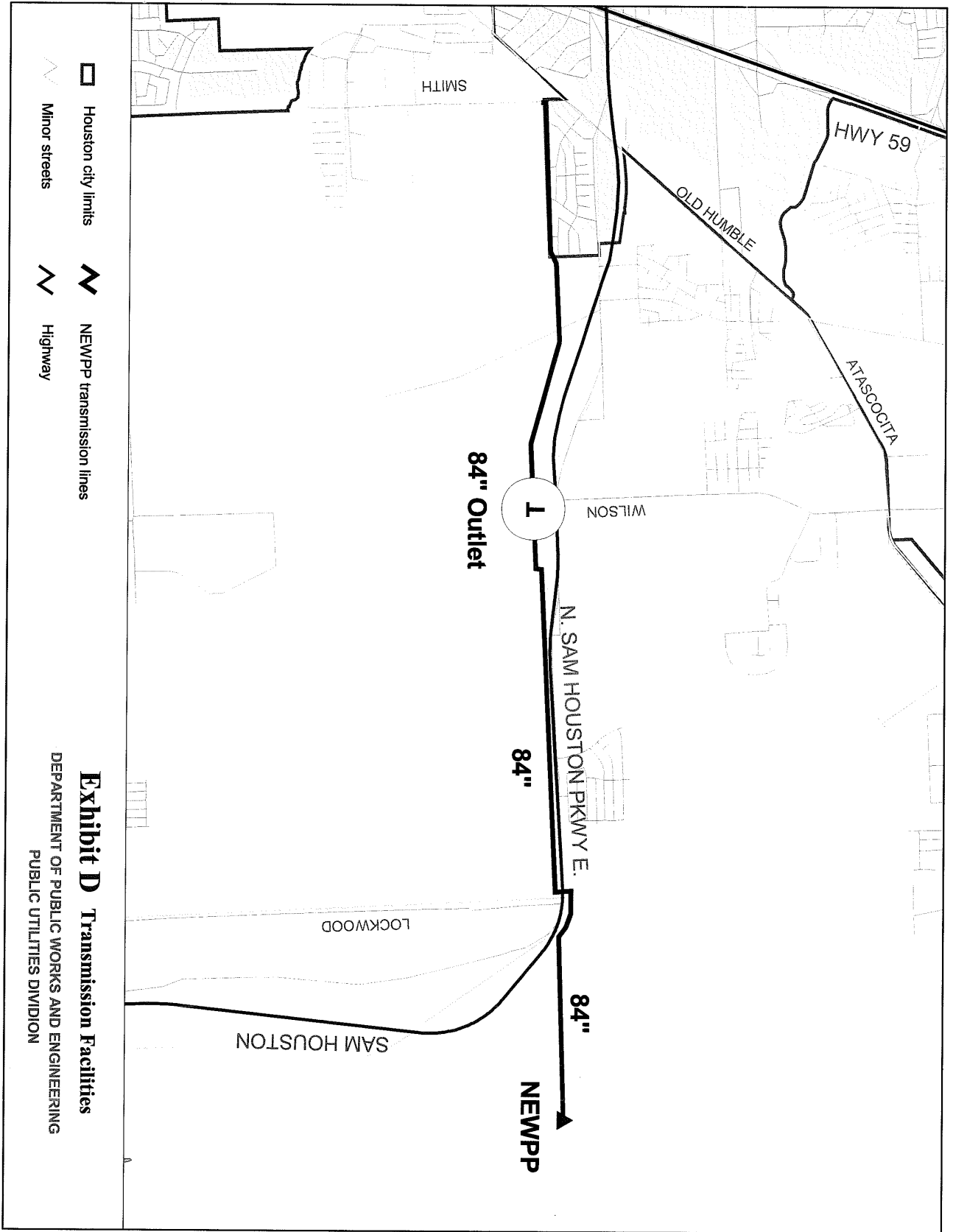
## **EXHIBIT A: Houston's Existing Untreated Water Facilities**

- 1 Coastal Water Authority ( General)
- 2 Trinity/Lynchburg Pump Stations
- 3 Conveyance System
  
- 4 Trinity River Authority ( General)
- 5 Lake Livingston Improvements
  
- 6 Lake Houston Dam/Reservoir
  
- 7 Wallisville Lake Project
- 8 Dayton Canal
- 9 Allens Creek Reservoir Land Purchase
  
- 10 Water Rights

**EXHIBIT B : PLANT FACILITIES -  
NORTHEAST WATER PURIFICATION PLANT**







**Exhibit D Transmission Facilities**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
 PUBLIC UTILITIES DIVISION

**EXHIBIT E: Initial Untreated Water Facilities Demand Allocation to be purchased by the Authority, The Outstanding Debt, and the total amount (in MGD) of Factor "B"**

NHCRWA's Prorata Share of Houston's Untreated Water Facilities Current Outstanding Debt For Initial Demand Allocation

(A/B)C = \$23,071,783

Where

**Factor A = Initial Demand Allocation for the Authority**

Year	Demand Allocation (MGD)
2010	31

**Factor B = Surface Water - Average Daily Production (MGD):**

Untreated Water Sold to Customers in 2001 (MGD):	235.51
Water Production at SEWTP in 2001 (MGD):	68.55
Water Production at EWTP in 2001 (MGD):	215.92
<b>Surface Water - Average Daily Production (MGD):</b>	<b>519.98</b>

**Factor C = Houston's Untreated Water Facilities Outstanding Debt**

Facility Component	Outstanding Debt
1 Coastal Water Authority ( General)	\$254,187,160
2 Trinity River Authority ( General)	\$13,000,000
Total Contract Debt:	\$267,187,160
3 Coastal Water Authority ( Proposed TRINITY/Lynchburg Pump Station Upgrade )General)	\$55,000,000
4 TRA - Current Lake Livingston Improvements	\$15,481,000
5 Allens Creek Land Purchase:	\$16,754,709
6 Lake Houston Dam/Reservoir Improvements:	\$17,016,400
7 Wallisville Lake Project :	\$10,406,400
8 Dayton Canal	\$5,150,000
<b>Total Outstanding Debt (Factor C):</b>	<b>\$386,995,669</b>

Note: Item 1 and 2 represents "Outstanding Debt" as of June 30, 2001. Item 3 through 8 represents estimated cost. Factor "C" will be revised per "actual" costs of all Untreated Water Facilities. Authority and Houston will "true-up" final untreated water cost payment per actual incurred costs of facilities shown in Exhibit A.

**Exhibit F Treated Water Facilities Applicable to North Harris County Regional Water Authority**

**Page 1 of 2 Northeast Water Purification Plant**

Description	cost	
Phase I Construction Cost		
Total	\$92,206,000	
84-inch	\$14,000,000	
42-inch	\$6,338,000	6.87%
<b>Plant Construction Cost</b>	<b>\$71,868,000</b>	
Phase I Non-construction Cost	<b>\$16,581,586</b>	
Items subject to revision		
Owner's Representative	\$4,427,841	
Diversity Consultant	\$495,000	
General Engineering Consultant	\$1,497,740	
Project Contingency/Change Orders	\$5,000,000	
Total:	\$11,420,581	
Adjusted amount at 6.87%	(\$785,021)	
<b>Adjusted Plant Non-construction Cost</b>	<b>\$15,796,565</b>	
<b>Phase I total</b>	<b>\$87,664,565</b>	
<b>Phase II total</b>	<b>\$32,526,000</b>	
Total Plant Cost	<b>\$120,190,565</b>	
Total Plant Cost		\$120,190,565
Capacity (Gallons / day)		80,000,000
Cost per Gallon / Day		\$1.50
Authority Pro-Rata Capacity (Gal/day)		31,000,000
Authority Pro-Rata Cost		<b>\$46,573,844</b>

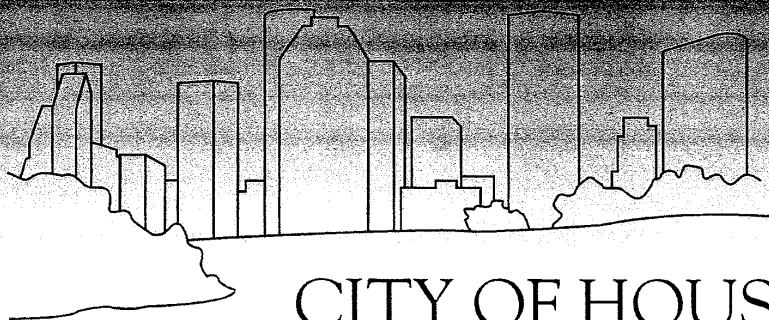
**Exhibit F Treated Water Facilities Applicable to North Harris County Regional Water Authority**

Page 2 of 2 84-inch Transmission Line

Total Cost	Component	Length (ft)	Size (in)	Demand Allocation (MGD)*	Full Flow @ 5 ft/sec (MGD)	Authority Pro-Rata Cost
\$14,000,000	Transmission Line	31,000	84	31.0	124.0	\$3,500,000
\$4,161,532	Transmission Easements					\$1,040,000
\$1,514,407	Condemnation Attorney					\$379,000
<b>Authority Pro-Rata Cost</b>						<b>\$4,919,000</b>

\* From Exhibit E





**CITY OF HOUSTON**  
Water and Sewer Rate Study

———— April 1999 ————

**BLACK & VEATCH**

# Exhibit G Page 2 of 3

**Table W-9**  
**Water Utility**  
**Allocation of Maintenance & Operation Expenses**  
**2000 Test Year**  
**Thousands of Dollars**

Line NO.	Description	M&O Expenses	Common to Surface Water	Common to All			Common to Treated Water			Common to Retail			Direct SE Plant Participants
				Meters	Utility Billing	Base	Extra Capacity Max Day	Max Hour	Base	Extra Capacity Max Day	Max Hour		
1	Source of Supply - Surface Water	42,080	37,766									4,315	
2	Resource Management	42,080	37,766									4,315	
3	Meter Maintenance	4,523		4,523									
4	Other Customer Service	12,229			12,229								
5	Customer Service	16,752		4,523	12,229								
6	SE Plant Participants	4,315				717	265					4,315	
7	Ground Water	982				10,203	3,771	6,977					
8	Pumping	20,951				7,886	2,917						
9	Treatment	10,803				18,806	6,953	6,977				4,315	
10	Water Production	37,050											
11	Distribution Water Storage	2,673				1,302	481	890					
	Water Pipe												
12	Transmission	8,280				6,044	2,236						
13	Distribution	8,046											
14	Water Services	207		207					3,918	1,448	2,680		
15	Water Meters	122		122									
16	Utilities Maintenance	19,328		329		7,346	2,717	890	3,918	1,448	2,680		
17	Management & Support	6,912											
18	Planning & Operations	4,849											
19	Office of the Director	715											
20	Inventory Support	3,655											
21	Resource Management	16,365											
22	Non-capitalized Equipment	1,356											
23	General & Administrative	33,852	12,846	1,481	3,733	7,983	2,952	2,401	1,196	442	818		
24	Total M&O Expenses	149,062	50,612	6,333	15,962	34,135	12,622	10,268	5,114	1,890	3,498	8,629	
25	Total M&O Cost of Service	159,992	54,551	6,826	17,204	36,792	13,604	11,067	5,512	2,037	3,770	8,629	

# Exhibit G Page 3 of 3

## Calculation of General and Administrative Cost per 1999 Black & Veatch Rate Study Water Utility

(1) General and Administrative	\$ 33,852
(2) Total M & O Cost of Service	\$ 159,992
(3) Total M & O excluding General & Administrative Cost	\$ 126,140
(4) % of General & Administrative to Total M & O excluding General & Administrative Cost	26.84%

**Exhibit H****Plant and Transmission Facility Capacities**

Facilities	Capacity (MGD)	
Plant	NEWPP *	80
Transmission	84"	124 **

\* NEWPP - North East Water Purification Plant, \*\* Full Flow at 5 ft/sec





Jimmie Schindewolf, P.E.  
General Manager

**BOARD OF DIRECTORS**  
Kelly P. Fessler, *President*  
James D. Pulliam, *Vice President*  
Ron Graham, *Secretary*  
Lenox A. Sigler, *Treasurer*  
Alan J. Rendt, *Asst. Secretary*

## MEMORANDUM

**TO:** Robin S. Bobbitt  
Tom Rolan, P.E.  
Cyndi Plunkett

**FROM:** Lisa Randecker

**DATE:** February 26, 2009

**SUBJECT:** FIRST SUPPLEMENT TO WATER SUPPLY CONTRACT BETWEEN  
THE CITY OF HOUSTON, TEXAS, AND THE NORTH HARRIS  
COUNTY REGIONAL WATER AUTHORITY

---

Please find enclosed for your files one (1) fully executed duplicate original of the above referenced Agreement.

/r

Enc.

Cc: Paul R. Nelson (w/copy of attachment)

FIRST SUPPLEMENT TO WATER SUPPLY CONTRACT BETWEEN THE CITY OF  
HOUSTON, TEXAS, AND THE NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

0173111  
09-0052

This First Supplement to Water Supply Contract ("First Supplement") is made by and between the CITY OF HOUSTON, TEXAS ("Houston") and the NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY (the "Authority").

WITNESSETH:

Recitals

WHEREAS, Houston is a municipal corporation and home-rule city, principally located in Harris County, Texas; and

WHEREAS, the Authority is a Texas conservation and reclamation district organized and operating under provisions of House Bill No. 2965 of the Seventy-Sixth Texas Legislature, Regular Session, as amended, (the "Act") and the Texas Water Code, as amended; and

WHEREAS, Houston and the Authority entered into a Water Supply Contract effective as of December 16, 2002, (the "Contract");

WHEREAS, Houston has entered into Water Supply Contracts with West Harris County Regional Water Authority, North Fort Bend Water Authority, and Central Harris County Regional Water Authority ("Other Authorities"); and

WHEREAS, the Authority and each of the Other Authorities seek to increase their Untreated Water Facilities Demand Allocation and Houston does not currently have sufficient capacity available in the Existing Untreated Water Facilities to serve such increases; and

WHEREAS, Houston, the Authority and the Other Authorities seek the construction and completion of the project known as "Luce Bayou" that will convey approximately 400 million gallons per day ("MGD") of untreated surface water from the Trinity River to Lake Houston (the "Project") in order to increase untreated surface water supplies available to Houston, the Authority and the Other Authorities; and

WHEREAS, Houston and the Authority seek to supplement the Contract to clarify cost-sharing and capacity with respect to the Project under Section 3.02(c) of the Contract and also to address other matters.

NOW, THEREFORE, for and in consideration of the premises and the mutual covenants and agreements herein contained, the parties hereto do mutually agree as follows:

Section 1. Definitions. In addition to the terms defined elsewhere in this First Supplement, the following terms used in this First Supplement, unless the context requires otherwise, shall have meanings as follows:

"Actual O&M Rate" means the per 1,000 gallon rate calculated by dividing: (i) the actual O&M Expenses for the prior Fiscal Year, by (ii) the actual amount of Water (in millions of gallons) taken by the Authority during the prior Fiscal Year, divided by 1,000.

"Additional Right-of-Way Costs" is defined in Section 2A.

"Anticipated Demand" means the amount of Water (in millions of gallons) that the Authority reasonably anticipates that it will need from Houston during the upcoming Fiscal Year.

"Authority's Additional Payment for Right-of-Way Costs" means the product of multiplying the Authority's Right-of-Way Percentage times the Additional Right-of-Way Costs.

"Authority's Lump Sum Payment for Right-of-Way Costs" means the product of multiplying the Authority's Right-of-Way Percentage times \$15,000,000.

"Authority's New UWFDA" means the Authority's new Untreated Water Facilities Demand Allocation in the amount of 159.0 MGD, which will be effective once the Utility Official has certified that the Project is complete pursuant to Section 3.

"Authority's Pro-Rata Share of CWA Interest Amount" means \$57,734, which is the result of multiplying \$360,836 by the Authority's Right-of-Way Percentage.

"Authority's Pro-Rata Share of Payment for Right-of-Way Costs" means the product of multiplying the Authority's Right-of-Way Percentage times the total Project Right-of-Way Costs.

"Authority's Right-of-Way Percentage" means 16.00%.

"CWA" means the Coastal Water Authority.

"CWA Agreement" is defined in Section 1A.

"CWA Interest Amount" means the \$360,836 of interest due to CWA on costs incurred or to be incurred by CWA for the Project prior to CWA obtaining WIF funds.



"Effective Date" means the date this First Supplement is executed by the Houston Controller.

"Estimated O&M Rate" means the per 1,000 gallon rate calculated by dividing: (i) the O&M Expenses reasonably estimated by the City for the coming Fiscal Year, by (ii) the Anticipated Demand, divided by 1,000.

"Fiscal Year" means Houston fiscal year.

"Phase 1" is defined in Section 3.

"Phase 2" is defined in Section 3.

"Phase 1 Annual Letter" is defined in Section 6.

"Phase 2 Annual Letter" is defined in Section 7.

"Project Manager" is defined in Section 1A.

"Public Works Director" means the Director of the Department of Public Works and Engineering of Houston (or the successor equivalent position), or such person as he or she shall designate.

"Phase 1 Remittance Date" is defined in Section 6.

"Phase 2 Remittance Date" is defined in Section 7.

"Project Right-of-Way Costs" means the reasonable and necessary costs and expenses incurred by CWA or Houston for acquisition of Project Right-of-Way.

"Project Right-of-Way" means right-of-way and site acquisition for the Project and interests in land necessary for environmental mitigation (and environmental mitigation credits) for the Project, all as approved by the Public Works Director.

"TexPool Rate" means the monthly "Average Monthly Yield" rate paid by TexPool (or if such rate is discontinued, then a substitute comparable rate agreed upon by the Utility Official and the Authority. (The TexPool Rate for October, 2008 was 1.9762%.)

"Utility Official" means the Public Works Director. (The Contract is hereby amended such that the definition of "Utility Official" in the Contract is deleted and replaced with the definition of "Utility Official" contained in this First Supplement.)

"WIF" is defined in Section 2.

"2008 WWF Reservation" is defined in Section 3.

Section 1A. Coastal Water Authority. Houston and the Authority acknowledge that CWA is the sole entity responsible for all decisions and actions relating to the design, development, procurement and construction of all aspects of the Project ("Project Manager"). Houston will provide, in any agreement between Houston and CWA relating to the design and construction of the Project ("CWA Agreement"), that CWA will regularly communicate with the Authority with respect to the design, development, procurement and construction of the Project, by (i) inviting the Authority to participate in certain development and planning meetings between CWA and its consultants in order to facilitate communication and input from the Authority; and (ii) providing that CWA will provide the Authority with written monthly (or other than monthly if mutually agreed to by CWA and the Authority) updates regarding the progress, status of contracts and other relevant aspects of the Project. Such agreement will also provide that CWA will consider the Authority's input. Houston and the Authority recognize that the communication, input and status reports referenced above do not alter CWA's role as the sole Project Manager. In addition, Houston will ensure that CWA will invite the Authority and Houston to all meetings between CWA and its consultants, and between CWA and its construction contractors, where substantive issues that have a financial or project development impact on the Authority or Houston are being discussed. Houston will allow the Authority a reasonable opportunity to review and comment on any proposed supplements, modifications, or amendments to the CWA Agreement.

Section 1B. Project Construction. The Public Works Director shall review and approve: (i) preliminary engineering reports before CWA proceeds with final design of the Project; (ii) final plans for the Project before CWA advertises for construction contracts or otherwise proceeds with construction; and (iii) CWA's proposed award of contract(s) for construction of the Project before CWA awards such construction contract(s). If requested by the Authority, Houston will provide to the Authority copies of documents possessed by Houston regarding the design, construction, or financing of the Project, and Houston may require the Authority to pay for the costs of duplication.

Section 2. Funding of the Project. Subject to the terms of this First Supplement, Houston shall issue (or cause CWA to issue) bonds, notes, or other obligations to pay for all of the costs of the Project, except the Project Right-of-Way Costs and the CWA Interest Amount. Houston shall approve all bonds, notes, or other obligations issued by CWA (including those issued for refunding or refinancing purposes) that are related to the Project prior to CWA's issuance of same. Houston shall ensure that all proceeds, and related accrued interest, from the bonds, notes, or other obligations issued by CWA or Houston for the Project shall only be used by CWA and/or Houston to pay for: (i) costs of construction, surveying, engineering and permitting for the Project; and (ii) issuance costs associated with the bonds, notes, or other obligations for the Project. The Authority shall be obligated to pay Houston the

Phase 1 Annual New Untreated Water Facilities Payments and Phase 2 Annual New Untreated Water Facilities Payments due to Houston pursuant to Sections 5 through 7 of this First Supplement regardless of whether it is Houston or CWA that issues the bonds, notes, or other obligations for the Project. The Authority shall not owe any obligation whatsoever to CWA, including, without limitation, any obligation to pay to CWA any debt service on bonds, notes, or other obligations issued by CWA for the Project.

Houston shall use its best efforts, and shall cause CWA to use its best efforts, to obtain the maximum amount of funds and most favorable financing terms available from the Texas Water Development Board's Water Infrastructure Fund ("WIF") program to pay for the costs for Phase 1, defined below, except for the Project Right-of-Way Costs. In addition to the other terms and conditions of this First Supplement, neither party shall have any obligation to pay any funds for the Project unless and until Houston or CWA have obtained \$28,000,000 in WIF funding for use on the Project under a WIF program that provides for: (i) the accrual of zero interest on such funds for up to 10 years or until the Project is completed, whichever occurs first (the "Up to 10 Year Period"); and (ii) no interest or principal payments on such funds during the Up to 10 Year Period.

Section 2A. Lump Sum Payment for Project Right-of-Way Costs and the Payment for CWA Interest Amount.

Pursuant to this Section 2A, the Authority will be responsible to pay to Houston the Authority's Pro-Rata Share of Payment for Right-of-Way Costs and also the Authority's Pro-Rata Share of CWA Interest Amount. No payments are due from the Authority for Project Right-of-Way or for CWA interest except those payments set forth in this Section 2A. The Authority shall pay Houston the Authority's Pro-Rata Share of CWA Interest Amount no later than January 31, 2009. Promptly (but no later than five (5) business days) thereafter, Houston will forward said funds to CWA.

Currently, Houston estimates that the Project Right-of-Way Costs will be \$15,000,000. The Authority will pay to Houston the Authority's Lump Sum Payment for Right-of-Way Costs in two segments as follows: (i) no later than June 15, 2009, \$1,600,000; and (ii) no later than June 15, 2010, \$800,000. Houston shall (or shall cause CWA to) maintain these funds in an interest bearing account. Houston shall ensure that all proceeds, and related accrued interest, from the Authority's Lump Sum Payment for Right-of-Way Costs shall only be used by CWA and/or Houston to pay for Project Right-of-Way Costs.

In the event Houston reasonably determines that said \$15,000,000 is not sufficient to pay for the Project Right-of-Way Costs, Houston shall immediately notify the Authority and Houston shall reasonably determine the amount of the additional funds

needed to pay for the remainder of the Project Right-of-Way Costs ("Additional Right-of-Way Costs"). Thereafter, Houston shall invoice the Authority for the Authority's Additional Payment for Right-of-Way Costs, which invoice the Authority shall pay to Houston within ninety (90) days of receipt.

Once CWA or Houston has acquired all of the Project Right-of-Way, but no later than June 30, 2014, Houston shall notify the Authority that all of the Project Right-of-Way has been acquired. Within one hundred eighty (180) days thereafter, Houston shall (or shall cause CWA to) prepare an accounting of the total Project Right-of-Way Costs actually paid by Houston or CWA. Such accounting shall also state the difference, if any, between: (i) the amounts paid by the Authority for Project Right-of-Way Costs pursuant to this Section 2A, and (ii) the Authority's Pro-Rata Share of Payment for Right-of-Way Costs. Houston shall (or shall cause CWA to) provide the Authority with 65 days to review and comment on such accounting prior to the accounting being finalized. Houston and the Authority agree to "true-up" the payments made by the Authority for Project Right-of-Way Costs such that if the Authority has underpaid, taking into account interest accrued, it will pay Houston such shortfall within 60 days of the Authority receiving the final accounting, and Houston agrees to refund to the Authority any overpayment, taking into account interest accrued, within 60 days of Houston receiving the final accounting if the Authority overpaid.

Section 3. Reservation. The Authority seeks to increase its Untreated Water Facilities Demand Allocation from 31.0 MGD to 159.0 MGD (which is currently estimated to be the Authority's surface water demand in the year 2040). The Authority hereby makes a Reservation request for said 128.0 MGD increase (the "2008 UWF Reservation"). (It is agreed and understood that nothing in this First Supplement shall be construed to be a Reservation for Treated Water Facilities. Reservations for Treated Water Facilities shall be governed by the Contract.) Upon completion of the Project, as certified by the Utility Official, the 2008 UWF Reservation will be deemed approved.

Houston agrees to cause the construction of the Project so that it is substantially complete and able to deliver water no later than June 30, 2019. The Utility Official shall issue a written certification to the Authority that the Project has been completed no later than sixty (60) days after the Project is completed. Houston shall cause the Project to be designed, acquired and constructed in two phases, as described below. Phase 1 of the Project ("Phase 1") shall be the permitting, engineering, surveying, right-of-way and site acquisition necessary for the Project, which is currently estimated at a cost of \$43,000,000. Phase 2 of the Project ("Phase 2") shall be the construction and related costs (for example, without limitation, construction administration, project representation, materials testing) necessary for the Project, which is currently estimated at a cost of \$214,000,000.

As payment for the 2008 UWF Reservation and the Authority's share of the costs of the Project, the Authority shall owe Houston: (i) the payments due under Section 2A; (ii) the four (4) Payments for Existing Untreated Water Facilities, described below; and (iii) the Phase 1 and Phase 2 Annual New Untreated Water Facilities Payments, described below. Upon completion of the Project, as certified by the Utility Official, the Authority's New UWFDA shall be 159.0 MGD and the Authority shall be entitled to receive same. The only payments due from the Authority whatsoever for the Project or the 2008 UWF Reservation are: (i) the payments due under Section 2A; (ii) the four (4) Payments for Existing Untreated Water Facilities, described below; and (iii) the Phase 1 and Phase 2 Annual New Untreated Water Facilities Payments described below.

Section 4A. Payment for Existing Untreated Water Facilities Formula. The formula in Section 3.02(c) of the Contract used to calculate the Payment for Existing Untreated Water Facilities shall not apply to the 2008 UWF Reservation. Instead, the formula and provisions of Sections 4A and 4B of this Supplement shall apply. For the 2008 UWF Reservation, the Authority shall make four (4) Payments for Existing Untreated Water Facilities, as described below:

(1) The 1st Payment for Existing Untreated Water Facilities For the 2008 UWF Reservation shall be calculated as follows: (A/B)C

Where: "A" is 90.9 MGD, which is the portion (in MGD) of the 2008 UWF Reservation that the Authority has determined that it needs by June 30, 2025. If pursuant to Section 8 of this First Supplement, prior to June 30, 2019, the Authority submits a written request to Houston to receive (prior to completion of the Project) a portion of the Water included in "A" of the preceding sentence, and said request is approved in writing by the Utility Official pursuant to the Contract, then "A" in the preceding sentence shall be reduced by the amount of such request. (For example, if prior to June 30, 2019, the Authority were to request, and obtain Utility Official approval for, 2 MGD out of the amount included in "A," then "A" would be reduced to 88.9 MGD.)

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year ending June 30, 2011, including such untreated surface water received at Houston's water treatment plants as well as billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities (such facilities being shown on Exhibit "A" of the Contract) as of July 1, 2011. In no event shall "C" be greater than \$182,952,232.

(2) The 2nd Payment for Existing Untreated Water Facilities For the 2008 UWF Reservation shall be calculated as follows: (A/B)C

Where: "A" is the additional portion (in MGD) of the 2008 UWF Reservation that the Authority needs by June 30, 2030, as determined by the Authority. No later than June 30, 2020, the Authority shall determine this amount and shall issue a written notice to the Utility Official identifying this amount.

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year ending June 30, 2019, including such untreated surface water received at Houston's water treatment plants as well as billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities (such facilities being shown on Exhibit "A" of the Contract) as of July 1, 2019. In no event shall "C" be greater than \$107,438,399.

(3) The 3rd Payment for Existing Untreated Water Facilities For the 2008 UWF Reservation shall be calculated as follows: (A/B)C

Where: "A" is the additional portion (in MGD) of the 2008 UWF Reservation that the Authority needs by June 30, 2035, as determined by the Authority. No later than June 30, 2025, the Authority shall determine this amount and shall issue a written notice to the Utility Official identifying this amount.

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year ending June 30, 2024, including such untreated surface water received at Houston's water treatment plants as well as billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities (such facilities being shown on Exhibit "A" of the Contract) as of July 1, 2024. In no event shall "C" be greater than \$74,538,900.

(4) The 4th Payment for Existing Untreated Water Facilities For the 2008 UWF Reservation shall be calculated as follows: (A/B)C

Where: "A" is the additional portion (in MGD) of the 2008 UWF Reservation that the Authority needs by June 30, 2040, as determined by the Authority. No

later than June 30, 2030, the Authority shall determine this amount and shall issue a written notice to the Utility Official identifying this amount.

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year ending June 30, 2029, including such untreated surface water received at Houston's water treatment plants as well as billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities (such facilities being shown on Exhibit "A" of the Contract) as of July 1, 2029. In no event shall "C" be greater than \$46,453,350.

Section 4B. Payment for Existing Untreated Water Facilities. Due Dates.  
Houston shall provide the Authority with the calculation for the 1st Payment for Existing Untreated Water Facilities no later than October 1, 2011. The Authority shall pay Houston the 1st Payment for Existing Untreated Water Facilities no later than sixty (60) days after the Authority receives written certification from the Utility Official that the Project has been completed.

Houston shall provide the Authority with the calculation for the 2nd Payment for Existing Untreated Water Facilities no later than October 1, 2020. The Authority shall pay Houston the 2nd Payment for Existing Untreated Water Facilities upon the earlier of: (i) sixty (60) days after the Authority sends written notice to Houston that the Authority requires the Water included in "A" in the 2nd Payment for Existing Untreated Water Facilities formula; or (ii) June 30, 2025.

Houston shall provide the Authority with the calculation for the 3rd Payment for Existing Untreated Water Facilities no later than October 1, 2025. The Authority shall pay Houston the 3rd Payment for Existing Untreated Water Facilities upon the earlier of: (i) sixty (60) days after the Authority sends written notice to Houston that the Authority requires the Water included in "A" in the 3rd Payment for Existing Untreated Water Facilities formula; or (ii) June 30, 2030.

Houston shall provide the Authority with the calculation for the 4th Payment for Existing Untreated Water Facilities no later than October 1, 2030. The Authority shall pay Houston the 4th Payment for Existing Untreated Water Facilities upon the earlier of: (i) sixty (60) days after the Authority sends written notice to Houston that the Authority requires the Water included in "A" in the 4th Payment for Existing Untreated Water Facilities formula; or (ii) June 30, 2035.

Section 5. Formulas for Phases 1 and 2. Annual New Untreated Water Facilities Payment. The formulas in Section 3.02(c) of the Contract used to calculate the

Annual New Untreated Water Facilities Payments shall not apply to the Authority's New UWFDA. Instead, the formula and provisions of this Section 5 shall apply. For the Authority's New UWFDA, the Authority shall pay Houston the Phase 1 Annual New Untreated Water Facilities Payment and Phase 2 Annual New Untreated Water Facilities Payment as described below:

(1) Phase 1 Annual New Untreated Water Facilities Payment = (D/E)F

Where: "D" is 159.0 MGD, which is the Authority's 31.0 MGD current Untreated Water Facilities Demand Allocation plus the additional 128.0 MGD that the Authority will obtain via the 2008 UWF Reservation upon completion of the Project

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during the Houston fiscal year that precedes the date Houston calculates the Phase 1 Annual New Untreated Water Facilities Payment, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"F" is the Annual Outstanding Debt Service for Phase 1 of the Project as of the first day of the Houston fiscal year in which Houston calculates the Phase 1 Annual New Untreated Water Facilities Payment. ("F" shall equal zero for any Houston fiscal year in which the Annual Outstanding Debt Service for Phase 1 is zero.)

(2) Phase 2 Annual New Untreated Water Facilities Payment = (D/E)G

Where: "D" is 159.0 MGD, which is the Authority's 31.0 MGD current Untreated Water Facilities Demand Allocation plus the additional 128.0 MGD that the Authority will obtain via the 2008 UWF Reservation upon completion of the Project

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during the Houston fiscal year that precedes the date Houston calculates the Phase 2 Annual New Untreated Water Facilities Payment, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.



"G" is the Annual Outstanding Debt Service for Phase 2 of the Project as of the first day of the Houston fiscal year in which Houston calculates the Phase 2 Annual New Untreated Water Facilities Payment. ("G" shall equal zero for any Houston fiscal year in which the Annual Outstanding Debt Service for Phase 2 is zero.)

Section 5A. Definition of "Annual Outstanding Debt Service." The term "Annual Outstanding Debt Service" shall mean the amount of debt service (principal and interest) actually owed by Houston during a Houston fiscal year on any and all bonds, notes, or other obligations for construction and acquisition of the applicable New Untreated Water Facilities. In determining the amount of principal and interest actually owed by Houston, the amount of any capitalized interest (and its interest earnings) attributable to said bonds, notes, or other obligations and the amount of any debt service reserve fund (and its interest earnings) attributable to said bonds, notes, or other obligations shall be taken into account. In connection with the interest earnings described in the preceding sentence that are attributable to bonds, notes, or other obligations issued for the Project, if rebate or yield reduction payments are due from Houston and/or CWA to the United States of America pursuant to the requirements of the Internal Revenue Code of 1986 (as amended from time to time) or the Treasury Regulations promulgated from time to time thereunder, Houston and/or CWA shall be authorized to use proceeds out of such interest earnings to make such payments; and, if such proceeds are insufficient to make the necessary payment, then any shortfall may thereafter be included in the calculation of "Annual Outstanding Debt Service."

Section 6. Calculation and Administration of Phase 1 Annual New Untreated Water Facilities Payments. Notwithstanding any provision of this First Supplement, Houston shall cause the bonds, notes, or other obligations issued by CWA or Houston to finance Phase 1 to be structured such that there is no Annual Outstanding Debt Service for Phase 1 until after January 1, 2018. The bonds, notes, or other obligations issued for Phase 1 will have two (2) debt service payments in each Fiscal Year and, accordingly, the Phase 1 Annual New Untreated Water Facilities Payment will be divided into two (2) payments in each Fiscal Year. Starting with the Fiscal Year beginning July 1, 2009, and continuing for each Fiscal Year thereafter, Houston will calculate, according to the formula above, the Authority's Phase 1 Annual New Untreated Water Facilities Payment and will provide the Authority with a remittance letter (the "Phase 1 Annual Letter") within 60 days after the beginning of each Fiscal Year. The Phase 1 Annual Letter will include for that Fiscal Year: (i) the calculation for the Authority's Phase 1 Annual New Untreated Water Facilities Payment; (ii) the calculation of the portion of Annual Outstanding Debt Service for Phase 1 to be paid by the City and all other entities (including water authorities); and (iii) the dollar amounts, wiring instructions, and the remittance date ("Phase 1 Remittance Date") for each of the two portions of the Authority's Phase 1 Annual New Untreated Water Facilities Payment. Each of the two Phase 1 Remittance Dates will be no more than twenty (20)

business days prior to the date of the applicable actual debt service payment due from Houston in each Fiscal Year. For any Fiscal Year in which the Annual Outstanding Debt Service for Phase 1 is zero, the Phase 1 Annual Letter shall state that no payment is due from the Authority for such Fiscal Year. The Authority shall wire its Phase 1 Annual New Untreated Water Facilities Payment directly to Houston pursuant to the wiring instructions included in the Phase 1 Annual Letter on or before the Phase 1 Remittance Dates.

Houston shall maintain each Phase 1 Annual New Untreated Water Facilities Payment in an interest-bearing account, which interest (and any interest accrued on such interest) shall be credited by Houston against the Authority's next Phase 1 Annual New Untreated Water Facilities Payment. Each Phase 1 Annual Letter issued by Houston shall identify the amount of such interest credited to the Authority.

The Authority shall owe Houston the Phase 1 Annual New Untreated Water Facilities Payment each year during the life of the bonds, notes or other obligations issued by CWA or Houston to finance Phase 1 or until the Contract is no longer in effect, whichever occurs first. To assist the Authority in its financial planning, Houston shall, prior to the last day of each Fiscal Year, send a written statement to the Authority of Houston's reasonable estimate of: (i) the Annual Outstanding Debt Service for Phase 1 for each of the following three (3) Fiscal Years; and (ii) the amount of untreated surface water that Houston estimates will be included in factor "E" in Section 5 for each of the following three (3) Fiscal Years. Houston shall use the Phase 1 Annual New Untreated Water Facilities Payments, and interest accrued thereon in the interest-bearing account described in the preceding paragraph, only for the purpose of paying Annual Outstanding Debt Service on the bonds, notes or other obligations issued by CWA or Houston for the costs of Phase 1.

Houston will ensure that: (i) at no time will the amount held in any reserve fund associated with bonds, notes or other obligations issued by CWA or Houston for the costs of Phase 1 exceed the amount authorized for a "bona fide debt service fund" for tax-exempt obligations; and (ii) to the extent not required to pay rebate amounts to the United States, surplus or other remaining amounts in any such reserve funds will be applied upon the final maturities of principal of and interest on the bonds, notes or other obligations to pay principal of and interest then due, so that on final maturity of the bonds, notes or other obligations no balances will remain in any reserve fund.

Section 7. Calculation and Administration of Phase 2 Annual New Untreated Water Facilities Payments. Notwithstanding any provision of this First Supplement, Houston shall use its best efforts to cause the bonds, notes, or other obligations issued by CWA or Houston to finance Phase 2 to be structured such that there is no Annual Outstanding Debt Service for Phase 2 until after January 1, 2018. The bonds, notes, or other obligations issued for Phase 2 will have two (2) debt service payments in each Fiscal Year and, accordingly, the Phase 2 Annual New Untreated Water Facilities

Payment will be divided into two (2) payments in each Fiscal Year. Starting with the first Fiscal Year in which such bonds, notes, or other obligations are issued, and continuing for each Fiscal Year thereafter, Houston will calculate, according to the formula above, the Authority's Phase 2 Annual New Untreated Water Facilities Payment and will provide the Authority with a remittance letter (the "Phase 2 Annual Letter") within 60 days after the beginning of each Fiscal Year. The Phase 2 Annual Letter will include for that Fiscal Year: (i) the calculation for the Authority's Phase 2 Annual New Untreated Water Facilities Payment; (ii) the calculation of the portion of Annual Outstanding Debt Service for Phase 2 to be paid by the City and all other entities (including water authorities); and (iii) the dollar amount, wiring instructions, and the remittance date ("Phase 2 Remittance Date") for each of the two portions of the Authority's Phase 2 Annual New Untreated Water Facilities Payment. Each of the two Phase 2 Remittance Dates will be no more than twenty (20) business days prior to the date of the applicable actual debt service payment due from Houston in each Fiscal Year. For any Fiscal Year in which the Annual Outstanding Debt Service for Phase 2 is zero, the Phase 2 Annual Letter shall state that no payment is due from the Authority for such Fiscal Year. The Authority shall wire its Phase 2 Annual New Untreated Water Facilities Payment directly to Houston pursuant to the wiring instructions included in the Phase 2 Annual Letter on or before the Phase 2 Remittance Dates.

Houston shall maintain each Phase 2 Annual New Untreated Water Facilities Payment in an interest-bearing account, which interest (and any interest accrued on such interest) shall be credited by Houston against the Authority's next Phase 2 Annual New Untreated Water Facilities Payment. Each Phase 2 Annual Letter issued by Houston shall identify the amount of such interest credited to the Authority.

The Authority shall owe Houston the Phase 2 Annual New Untreated Water Facilities Payment each year during the life of the bonds, notes or other obligations issued by CWA or Houston to finance Phase 2 or until the Contract is no longer in effect, whichever occurs first. To assist the Authority in its financial planning, Houston shall, prior to the last day of each Fiscal Year, send a written statement to the Authority of Houston's reasonable estimate of: (i) the Annual Outstanding Debt Service for Phase 2 for each of the following three (3) Fiscal Years; and (ii) the amount of untreated surface water that Houston estimates will be included in factor "E" in Section 5 for each of the following three (3) Fiscal Years. Houston shall use the Phase 2 Annual New Untreated Water Facilities Payments, and interest accrued thereon in the interest-bearing account described in the preceding paragraph, only for the purpose of paying Annual Outstanding Debt Service on the bonds, notes or other obligations issued by CWA or Houston for the costs of Phase 2.

Houston will ensure that: (i) at no time will the amount held in any reserve fund associated with bonds, notes or other obligations issued by CWA or Houston for the costs of Phase 2 exceed the amount authorized for a "bona fide debt service fund" for

tax-exempt obligations; and (ii) to the extent not required to pay rebate amounts to the United States, surplus or other remaining amounts in any such reserve funds will be applied upon the final maturities of principal of and interest on the bonds, notes or other obligations to pay principal of and interest then due, so that on final maturity of the bonds, notes or other obligations no balances will remain in any reserve fund.

Prior to commencement of Phase 2, Houston shall attempt to obtain the Authority's written consent as to the date that Houston proposes commencement of Phase 2. The Authority shall not be obligated to pay any Phase 2 Annual New Untreated Water Facilities Payments until the Authority has consented in writing to the commencement of Phase 2; provided, however, if the Authority fails to provide such written consent to Houston by January 1, 2014, Houston shall have the right to commence Phase 2 and the Authority shall, after January 1, 2014, be required to pay Phase 2 Annual New Untreated Water Facilities Payments pursuant to this First Supplement.

Section 8. Requests To Obtain Water Prior To June 30, 2019. If, prior to July 1, 2012, the Authority submits a written request to Houston to receive (prior to completion of the Project) a portion of the Untreated Water included in "A" of the 1st Payment for Existing Untreated Water Facilities formula, and said request is approved in writing by the Utility Official pursuant to the Contract, then the payment for said request shall be calculated under 3.02(b) of the Contract and "B" and "C" in Section 3.02(b) of the Contract shall have the definition that is provided for "B" and "C", respectively, in Section 3.02(b) of the Contract. If, however, after July 1, 2012, but before June 30, 2019, the Authority submits a written request to Houston to receive (prior to completion of the Project) a portion of the Untreated Water included in "A" of the 1st Payment for Existing Untreated Water Facilities formula, and said request is approved in writing by the Utility Official pursuant to the Contract, then for purposes of that request, "B" and "C" in Section 3.02(b) of the Contract shall be revised to mean the definitions of "B" and "C" that are provided in Section 4A(1) of this First Supplement. The payment for Water received under any requests made pursuant to this Section 8 shall be made by the applicable due date required in Section 3.02(b) of the Contract; provided, however, in no event shall such payment be made to Houston later than sixty (60) days after the Authority receives written certification from the Utility Official that the Project has been completed. Any request submitted to the Utility Official under Section 3.02(b) of the Contract prior to June 30, 2019, as provided for in this Section 8, shall not be considered as exceeding the Authority's New UWFDA.

Section 9. Payment for Untreated Water Facilities Costs Avoided. If before December 31, 2028, the Authority submits a Reservation request that exceeds the Authority's New UWFDA and such Reservation does not require the construction of New Untreated Water Facilities, the Authority shall pay Houston the "Payment for Untreated Water Facilities Costs Avoided." The Payment for Untreated Water Facilities

Costs Avoided shall equal the total dollar amount, without interest or penalty, of the applicable Payment for Existing Untreated Water Facilities, as calculated under this First Supplement, and the total accrued Phase 1 and 2 Annual New Untreated Water Facilities Payments which would have been paid by the Authority, according to the hereinbefore formulas of this First Supplement, had the Authority made a Reservation request for such increase in this First Supplement. The Payment for Untreated Water Facilities Costs Avoided shall be made to Houston within one hundred twenty (120) days of the Authority's receipt of the Utility Official's approval of such later Reservation request. The Authority shall not owe Houston the Payment for Untreated Water Facilities Costs Avoided for a Reservation request that exceeds the Authority's New UWFDA if: (i) the Authority submits the Reservation request before December 31, 2028, and the Reservation requires the construction of New Untreated Water Facilities; or (ii) the Authority submits the Reservation request, regardless of whether or not it requires construction of New Untreated Water Facilities, after December 31, 2028.

The Payment for Untreated Water Facilities Costs Avoided, if any, with respect to the Project shall be calculated and determined pursuant to the preceding paragraph of this Section 9, and not pursuant to the final paragraph of Section 3.02 of the Contract.

Section 10. Future Reservations. The provisions of Sections 10, 10A, 10B, 10C, 10D, and 10E apply only to: (i) future Reservations of the Untreated Water Facilities Demand Allocation that exceed the Authority's New UWFDA; or (ii) to New Untreated Water Facilities except for the Project. The Project shall be considered "New Untreated Water Facilities" for purposes of the Contract and this First Supplement. Subject to the provisions of this Section 10 (and Sections 10A, 10B, 10C, 10D, and 10E), the payment for all future Reservations of the Untreated Water Facilities Demand Allocation that exceed the Authority's New UWFDA (regardless of whether or not the Reservation requires construction of New Untreated Water Facilities) shall be calculated and made pursuant to the formulas of Section 3.02(c) of the Contract, as amended by this First Supplement, and not Sections 3.02(a) or (b) of the Contract. The Payment for Existing Untreated Water Facilities shall remain as set forth in Section 3.02(c) of the Contract and the Annual New Untreated Water Facilities Payment shall be revised and due as described below in Sections 10A, 10B, 10C, 10D, and 10E.

Section 10A. For a future Reservation of the Untreated Water Facilities Demand Allocation by the Authority that exceeds the Authority's New UWFDA and does not require the construction of New Untreated Water Facilities, the formula for Annual New Untreated Water Facilities Payment in Section 3.02(c) of the Contract shall be revised to read as described below in this Section 10A.

Annual New Untreated Water Facilities Payment =  $(X/E)Z$

Where: "X" is the amount (in MGD) that the Authority seeks to increase its Untreated Water Facilities Demand Allocation, as identified in the applicable Authority Reservation request pursuant to this Section 3.02(c).

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during the Houston fiscal year that precedes the date Houston calculates the Annual New Untreated Water Facilities Payment, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"Z" is the Annual Outstanding Debt Service for all New Untreated Water Facilities as of the first day of the Houston fiscal year in which Houston calculates the Annual New Untreated Water Facilities Payment.

Section 10B. For a future Reservation of the Untreated Water Facilities Demand Allocation by the Authority that exceeds the Authority's New UWFDA and requires the construction of New Untreated Water Facilities, the formula for Annual New Untreated Water Facilities Payment in Section 3.02(c) of the Contract shall be revised to read as described below in this Section 10B.

Annual New Untreated Water Facilities Payment =  $(X1/E)Y$  plus  $(X/E)Y1$

Where: "X1" is the Authority's then-current Untreated Water Facilities Demand Allocation, plus the amount (in MGD) that the Authority seeks to increase its Untreated Water Facilities Demand Allocation upon completion of the New Untreated Water Facilities, as identified in the applicable Authority Reservation request pursuant to this Section 3.02(c).

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during the Houston fiscal year that precedes the date Houston calculates the Annual New Untreated Water Facilities Payment, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-

or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"Y" is the Annual Outstanding Debt Service for all New Untreated Water Facilities (except the Project) as of the first day of the Houston fiscal year in which Houston calculates the Annual New Untreated Water Facilities Payment.

"X" is the amount (in MGD) that the Authority seeks to increase its Untreated Water Facilities Demand Allocation, as identified in the applicable Authority Reservation request pursuant to this Section 3.02(c).

"Y1" is the Annual Outstanding Debt Service for the Project as of the first day of the Houston fiscal year in which Houston calculates the Annual New Untreated Water Facilities Payment.

Section 10C. If Houston constructs or acquires New Untreated Water Facilities for any reason and the Authority does not desire capacity in the New Untreated Water Facilities and accordingly does not make a Reservation request for same, the formula for Annual New Untreated Water Facilities Payment in Section 3.02(c) of the Contract shall be revised to read as described below in this Section 10C.

Annual New Untreated Water Facilities Payment = (U/E)Y

Where: "U" is the Authority's then-current Untreated Water Facilities Demand Allocation (in MGD).

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during the Houston fiscal year that precedes the date Houston calculates the Annual New Untreated Water Facilities Payment, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"Y" is the Annual Outstanding Debt Service for all New Untreated Water Facilities (except the Project) as of the first day of the Houston fiscal year in which Houston calculates the Annual New Untreated Water Facilities Payment.

Section 10D. Any Annual New Untreated Water Facilities Payments that may be due pursuant to Sections 10A, 10B, or 10C shall be in addition to the Phase 1 Annual New Untreated Water Facilities Payments and Phase 2 Annual New Untreated Water Facilities Payments otherwise due under Sections 5 through 7.

Section 10E. The paragraph in Section 3.02(c) of the Contract that begins with the phrase "Within ninety (90) days . . ." and ends with the phrase "three (3) Houston fiscal years" is deleted. The paragraph in Section 3.02(c) of the Contract that begins with the phrase "Houston shall maintain" and ends with the phrase "if the Authority overpaid" is deleted. The following provisions of this Section 10E hereby replace the two (2) aforementioned deleted paragraphs:

"The bonds, notes, or other obligations issued for New Untreated Water Facilities will have two (2) debt service payments in each Fiscal Year and, accordingly, the Annual New Untreated Water Facilities Payment will be divided into two (2) payments in each Fiscal Year. Starting with the Fiscal Year in which the Authority makes a Reservation under Sections 10A or 10B (or the Fiscal Year in which Houston first issues bonds, notes, or other obligations to finance New Untreated Water Facilities under Section 10C), and continuing for each Fiscal Year thereafter, Houston will calculate, according to the applicable formula above, the Authority's Annual New Untreated Water Facilities Payment and will provide the Authority with a remittance letter within 60 days after the beginning of each Fiscal Year. Such letter will include for that Fiscal Year: (i) the calculation for the Authority's Annual New Untreated Water Facilities Payment (ii) the calculation of the portion of Annual Outstanding Debt Service to be paid by the City and all other entities (including water authorities); and (iii) the dollar amounts, writing instructions, and the remittance date for each of the two portions of the Authority's Annual New Untreated Water Facilities Payment. Each of the two remittance dates will be no more than twenty (20) business days prior to the date of the applicable actual debt service payment due from Houston in each Fiscal Year. For any Fiscal Year in which the Annual Outstanding Debt Service for the New Untreated Water Facilities is zero, said letter shall state that no payment is due from the Authority for such Fiscal Year. The Authority shall wire its Annual New Untreated Water Facilities Payment directly to Houston pursuant to the wiring instructions included in said letter on or before said remittance dates.

Houston shall maintain each Annual New Untreated Water Facilities Payment in an interest-bearing account, which interest (and any interest accrued on such interest) shall be credited by Houston against the Authority's next Annual New Untreated Water Facilities Payment. Each aforementioned letter issued by Houston shall identify the amount of such interest credited to the Authority.

The Authority shall owe Houston the Annual New Untreated Water Facilities Payment each year during the life of the bonds, notes or other obligations issued by Houston to finance the New Untreated Water Facilities or until the Contract is no longer in effect, whichever occurs first. To assist the Authority in its financial planning, Houston shall, prior to the last day of each Fiscal Year, send a written statement to the Authority of Houston's reasonable estimate of: (i) the Annual Outstanding Debt



Service for New Untreated Water Facilities for each of the following three (3) Fiscal Years; and (ii) the amount of untreated surface water that Houston estimates will be included in factor "E" in Sections 10A, 10B, or 10C for each of the following three (3) Fiscal Years. Houston shall use the Annual New Untreated Water Facilities Payments, and interest accrued thereon in the interest-bearing account described in the preceding paragraph, only for the purpose of paying Annual Outstanding Debt Service on the bonds, notes or other obligations issued for the New Untreated Water Facilities.

Houston will ensure that: (i) at no time will the amount held in any reserve fund associated with bonds, notes or other obligations issued by Houston for the costs of New Untreated Water Facilities exceed the amount authorized for a "bona fide debt service fund" for tax-exempt obligations; and (ii) to the extent not required to pay rebate amounts to the United States, surplus or other remaining amounts in any such reserve funds will be applied upon the final maturities of principal of and interest on the bonds, notes or other obligations to pay principal of and interest then due, so that on final maturity of the bonds, notes or other obligations no balances will remain in any reserve fund."

Section 11. Bonds, Notes and Other Obligations Issued for the Project. Houston shall cause the Annual Outstanding Debt Service for the Project and the bonds, notes, or other obligations issued by CWA or Houston for the Project to be structured in a manner consistent with the criteria set forth in Exhibit "A" attached hereto. Houston may from time to time refinance, or cause the refinancing of, the outstanding debt service or outstanding debt for the Project; provided, however, Houston shall not refinance or modify (or allow any refinancings or modifications) of the outstanding debt service or outstanding debt for the Project that would increase any payments due from the Authority or extend any time-period(s) during which the Authority owes payments to Houston. Starting in 2008, Houston will annually provide to the Authority a copy of Houston's Comprehensive Annual Financial Report ("CAFR") and a report showing Houston's outstanding debt and outstanding debt service for all Untreated Water Facilities.

Section 12. Terms of Contract. This First Supplement shall control over the Contract with respect to the matters addressed in this First Supplement, included, without limitation: (i) the Project and all payments from the Authority related to same, and (ii) the 2008 UWF Reservation, the Authority's New UWFDA, and all payments related to both of same. Except to the extent inconsistent with this First Supplement, all terms of the Contract remain in full force and effect. Capitalized terms used in this First Supplement that are not defined in this First Supplement shall have the same meanings given such terms in the Contract. This First Supplement, the Contract, the "Interlocal Cost Sharing Agreement (Greens Road Water Line Project)" effective March 11, 2005, and the "Interim Treated Water Supply Contract" effective March 18, 2003, contain all the agreements made between the parties. This First Supplement shall be for the sole

and exclusive benefit of the parties hereto and shall not be construed to confer any rights upon any third party. The parties agree that this First Supplement shall not be construed in favor of or against either party on the basis that the party did or did not author this First Supplement.

Section 13. Use of Water. While it is understood that Houston may use, dispose of, sell and/or transfer any water (other than the Authority's Untreated Water Facilities Demand Allocation) from the Project, Houston agrees that such use, disposition, sale or transfer shall not harm the Authority or impinge upon the Authority's rights under the Contract or this First Supplement. Although CWA is the Project Manager and may issue bonds, notes, or other obligations for the Project, Houston shall at all times be obligated to provide the Authority with the Authority's Water Demand Allocation (including its Untreated Water Facilities Demand Allocation) pursuant to the Contract and this First Supplement.

Section 14. Existing Payments. With respect to the Authority's Water Demand Allocation as it existed prior to the Effective Date, nothing in this First Supplement shall be construed to relieve the Authority of its obligation to pay the City payments, if any, that are otherwise due to the City: (i) for Existing Untreated Water Facilities pursuant to Section 3.02(a) and 3.02(b) of the Contract; (ii) for Treated Water Facilities pursuant to Section 3.03 of the Contract; or (iii) for O&M Expenses pursuant to Article IV of the Contract.

Section 15. Term. Article V of the Contract is deleted and replaced with the following: "The Contract (being effective as of the date provided in the Contract) and the First Supplement (being effective as of the Effective Date) shall expire at noon on January 1, 2080. At such time as the Contract and the First Supplement are no longer in force and effect, if requested in writing by the Authority, Houston agrees to continue to provide water services to the Authority upon the payment of reasonable rates and charges therefor which take into account the capital payments paid by the Authority to Houston pursuant to the Contract (and any supplements, including the First Supplement, or amendments thereto) and the Authority's equitable interest described below. Upon the date that the Contract and the First Supplement are no longer in force and effect, the Authority will own the right to use the capacity of the Untreated Water Facilities and Treated Water Facilities proportionate to the amount of its Water Demand Allocation as it existed immediately prior to such date. The immediately preceding two (2) sentences shall survive the expiration or termination of the Contract and the First Supplement."

Section 16. O&M Expenses. The Contract currently provides that the Authority will pay the estimated O&M Expenses monthly by paying 1/12 of the Annual O&M Budget. The parties however, seek to hereby amend the Contract to instead provide that the Authority will pay the estimated O&M Expenses on a per 1,000 gallons

consumption basis. The parties also seek to hereby amend the Contract to delete the requirement that an O&M Reserve be maintained.

The first sentence of Section 4.03 of the Contract is deleted and replaced with the following: "Ninety (90) days prior to the commencement of delivery of Water under this Contract, and ninety (90) days prior to the beginning of each Fiscal Year thereafter, Houston shall provide the Authority for its review and comment the proposed Annual O&M Budget showing (i) an estimate of costs and expenses to be included in items "C" and "D" of the formula shown in Section 4.02 of the Contract for the coming Fiscal Year; (ii) a calculation of the estimated O&M Expenses for the coming Fiscal Year, and (iii) the Estimated O&M Rate for the coming Fiscal Year."

The first paragraph of Section 4.04 of the Contract is deleted and replaced with the following: "During Each Fiscal Year, Houston will invoice the Authority monthly for the Authority's share of estimated O&M Expenses, and the charge on such invoice shall be calculated by multiplying (A) the Estimated O&M Rate times (B) the amount of Water taken by the Authority during the prior month, as determined by Houston's reading of the measuring equipment at the Point(s) of Measurement. The Authority shall pay such invoices within 35 days after receipt. Any late payment shall bear interest at the rate applicable under Chapter 2251, Texas Government Code."

In addition to the requirements of Section 4.06 of the Contract, the Annual Audit shall include: (i) the difference between the Estimated O&M Rate and the Actual O&M Rate; (ii) the amount of overpayment or underpayment of O&M Expenses by the Authority; and (iii) the amount of interest due pursuant to this paragraph. The fourth sentence of Section 4.06 is deleted and replaced with the following: "During the next Fiscal Year, Houston and the Authority agree to "true-up" the payments made for O&M Expenses during the prior Fiscal Year such that if the Authority has underpaid it will make timely payment of all O&M Expenses owed, plus interest described below, in the next monthly billing following the Authority's receipt of the final audit; and Houston agrees to give credit to the Authority if it has overpaid O&M Expenses for the prior Fiscal Year, such credit, plus the interest described below, shall be given on the next monthly billing(s) following Houston's receipt of the final audit. The amount of any underpayments or overpayments of O&M Expenses by the Authority shall accrue simple interest at the Texpool Rate, on a monthly basis, from the date payment was due until the date the true-up is completed pursuant to the preceding sentence. Prior to completion of the audit, Houston will provide the Authority at least 40 days to review and comment on the draft audit."

On or before January 15<sup>th</sup> each year, the Authority shall provide Houston with its Anticipated Demand in order for Houston to be able to prepare the Annual O&M Budget as required under the Contract.

The requirement in the Contract requiring that an O&M Reserve be maintained is hereby deleted. Accordingly, the second paragraph of Section 4.04 of the Contract is hereby deleted.

Section 17: Outstanding Debt for Untreated Water Facilities. Exhibit "F" of the Contract included estimated costs for certain items (the "Items") listed in said Exhibit "E." Section 3.02(a) of the Contract contemplated that Houston would, after the effective date of the Contract, incur actual Outstanding Debt for the Items. Houston has heretofore incurred Outstanding Debt for the Items. Accordingly, the Authority and Houston agree that: (i) Factor "C" on Exhibit "E" of the Contract is revised to read as shown on the attached Exhibit "B"; and (ii) the definition of "C" on page 6 of the Contract is amended to read as follows "C equals \$365,655,353, which is the Outstanding Debt as shown on Exhibit "B" to the First Supplement, Items 1-8 inclusive, for all Existing Untreated Water Facilities (such facilities being shown on Exhibit "A" of the Contract)".

[EXECUTION PAGES FOLLOW]

IN WITNESS WHEREOF, the parties hereto have executed this First Supplement in multiple copies, each of which shall be deemed to be an original, effective on the date of countersignature indicated below.

CITY OF HOUSTON, TEXAS

By: Bill White  
Mayor Barbara Willett

Executed for and on behalf of City pursuant to authority granted by the City Council Ordinance No. 2009-52 passed JANUARY 28, 2009 a copy of which is attached hereto for reference.

ATTEST/SEAL  
Barbara Willett  
ACTING ASSISTANT CITY SECRETARY

APPROVED:  
871 Duval & Mt 1/28/09  
Director, Department of Public Works and Engineering

APPROVED AS TO FORM:  
Shawn  
Sr. Assistant City Attorney  
I. D. File No. 80-99041-01

COUNTERSIGNED BY:  
Annina D. Patten  
City Controller Shawn Patten  
DATE COUNTERSIGNED: 1-30-09

**NORTH HARRIS COUNTY REGIONAL  
WATER AUTHORITY**

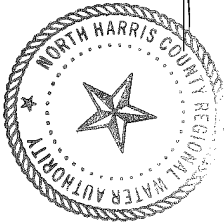
By:   
Kelly P. Fessler, President

Date Signed: 1/5/09

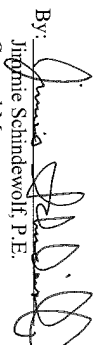
ATTEST:

By:   
Ron Graham, Secretary

(AUTHORITY SEAL)



APPROVED:

By:   
Jurgnie Schindewolf, P.E.  
General Manager

### **Exhibit "A"**

The Annual Outstanding Debt Service for the Project and the bonds, notes, or other obligations issued by CWA or Houston for the Project will adhere to the following:

1. The bonds, notes, or other obligations will have a final stated maturity no earlier than 20 years, and no later than 30 years, after their date of issuance (though serial maturities and sinking fund redemption may be earlier).
2. During the period where debt service is due, the maximum annual debt service payment on any issuance of bonds, notes, or other obligations shall not exceed the average annual debt service payment on that issuance by more than 25%.
3. The bonds, notes, or other obligations shall be optionally callable, without a premium, no later than 15 years after the date of issuance.
4. Any debt service reserve fund for the bonds, notes, or other obligations shall be:  
(i) funded with proceeds of the bonds, notes, or other obligations; and/or (ii) satisfied with a surety policy acquired from a financial institution with a long term credit rating in the highest generic rating category from at least two nationally recognized rating services.
5. All costs of issuance, including, without limitation, underwriters' discount, bond insurance premium, surety bond policy, rating agency fees, bond counsel and financial advisory fees shall be funded with proceeds of the bonds, notes, or other obligations.
6. None of the issues of bonds, notes, or other obligations shall be sold for less than 95% of par and the net effective interest rate on same, taking into account any discount or premium as well as the interest rate borne on same, will not exceed two percent (2%) above the highest average interest rate reported by the Daily Bond Buyer in its weekly "20 Bond Index" during the one month period next preceding the date of sale of same.

Notwithstanding the provisions hereof, any of the above-provisions of this Exhibit shall be considered modified if a written modification is approved by the Utility Official and 3 out of the 4 boards of directors of the following water authorities: (i) West Harris County Regional Water Authority, (ii) North Harris County Regional Water Authority, (iii) North Fort Bend Water Authority, (iv) Central Harris County Regional Water Authority. The Authority recognizes that if Houston is unable to obtain financing pursuant to the above-provisions of this Exhibit, or if Houston believes that a lower cost alternative to the above-provisions may be reasonably available, Houston will request that the Authority consider modification of one or more of the above-provisions pursuant to the procedure of the preceding sentence.

**Exhibit "B"**

**Factor C = Houston's Untreated Water Facilities Outstanding Debt**

Facility Component	Outstanding Debt
1. Coastal Water Authority	\$254,187,160
2. Trinity River Authority Total Water Debt:	\$ 13,000,000
3. Coastal Water Authority (Proposed Trinity/Lynchburg Upgrade)	\$ 40,385,000
4. Trinity River Authority – Current Lake Livingston	\$ 17,996,000
5. Allen's Creek Land Purchase	\$ 14,000,000
6. Lake Houston Dam/Reservoir Improvements	\$ 10,356,486
7. Wallisville Lake Project	\$ 10,580,707
8. Dayton Canal	\$ 5,150,000
<b>Total</b>	<b>\$365,655,353</b>

Note:

Items 1 through 8 represent actual Outstanding Debt.







Jimmie Schindewolf, P.E.  
*General Manager*

**BOARD OF DIRECTORS**  
James D. Pulliam, *President*  
Alan J. Rendl, *Vice President*  
Lenox A. Sigler, *Secretary*  
Kelly P. Fessler, *Treasurer*  
Ron Graham, *Asst. Secretary*

## MEMORANDUM

**TO:** Jon Polley

**FROM:** Lisa Randecker

**DATE:** February 5, 2013

**SUBJECT:** FIRST AMENDMENT TO THE FIRST SUPPLEMENT TO WATER SUPPLY CONTRACT BETWEEN THE CITY OF HOUSTON, TEXAS, AND THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY

---

Please find enclosed for your files one (1) fully executed duplicate original of the above referenced contract. I will retain a copy for the Authority contract files.

/lr

Enc.

Cc: Robin S. Bobbitt (w/copy of attachment)  
Tom Rolen, P.E. (w/copy of attachment)  
Cyndi Plunkett (w/copy of attachment)



**CITY OF HOUSTON**  
Public Works and Engineering Department

**Annise D. Parker**

Mayor

Daniel W. Krueger, P.E.  
Director  
P.O. Box 1562  
Houston, Texas 77251-1562

[www.houstontx.gov](http://www.houstontx.gov)

January 31, 2013

North Harris County Regional Water Authority  
c/o Jimmie Schindewolf  
General Manager  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

**RE: The First Amendment to the First Supplement to Water Supply Contract between the City of Houston and the North Harris County Regional Water Authority; C73171 Ordinance No. 2013-0044**

Dear Mr. Schindewolf:

Please find enclosed an original, signed and executed contract for the above referenced agreement that was countersigned on January 22, 2013 by the City of Houston.

Should you have any questions or require additional information, please contact me at 832-395-3080 or e-mail [veronica.osegueda@houstontx.gov](mailto:veronica.osegueda@houstontx.gov).

Sincerely,

A handwritten signature in cursive script that reads "Veronica R. Osegueda".

Veronica R. Osegueda  
Administration Manager  
Infrastructure Planning Branch  
Planning and Development Services Division

Enclosure

VO:fe

'13 FEB 4 AM 11:02:49

C73171  
2013-0044

**FIRST AMENDMENT TO THE FIRST SUPPLEMENT TO  
WATER SUPPLY CONTRACT BETWEEN THE CITY OF HOUSTON, TEXAS AND  
THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**

**THE STATE OF TEXAS** §  
§  
**COUNTY OF HARRIS** §

**THIS FIRST AMENDMENT TO THE FIRST SUPPLEMENT TO WATER SUPPLY CONTRACT** ("First Amendment") is made by and between the **CITY OF HOUSTON, TEXAS** ("Houston"), a Home Rule City located principally in Harris County, and, **AND THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**, as a body politic and corporate under Article XVI, Section 59 of the Texas Constitution, ("Authority") (collectively the "Parties").

**RECITALS:**

1. Pursuant to Ordinance No. 2002-1123 (December 16, 2002), Houston and the Authority entered into a Water Supply Agreement (the "Original Contract"). The Original Contract contemplated a cost-sharing arrangement for untreated water facilities and certain other facilities necessary to convey water to the Authority.
2. The Luce Bayou Interbasin Transfer Project (the "Project") is one of the untreated water facilities necessary to convey water to the Authority.
3. Pursuant to Ordinance 09-0052 (January 28, 2009), Houston and the Authority executed a First Supplement to Water Supply Contract ("First Supplement") to provide for the permitting, engineering, surveying, and right-of-way and site acquisition necessary for the Project ("Phase 1") and its construction ("Phase 2").
4. The First Supplement contemplated that Houston would cause Coastal Water Authority ("CWA") to issue bonds to the Texas Water Development Board ("TWDB") through the Water Infrastructure Fund ("WIF") Program for certain Phase 1 costs, and that all funds

obtained by CWA for Phase 1 would be structured so Annual Outstanding Debt Service (as defined in the First Supplement) would not be due before January 1, 2018 ("Debt Structure Requirement").

5. As contemplated by the First Supplement, CWA issued \$28,000,000 in bonds to the TWDB in 2009 through the WIF Program to pay for Phase 1.
6. CWA issued an additional \$5,150,000 in bonds to the TWDB in 2010 through the WIF Program, but will need additional funds to complete the design and permitting of the Project.
7. CWA anticipates that completion of Phase 1 may require an estimated additional \$6,000,000.
8. Pursuant to Section 2 of the First Supplement, Houston is causing CWA to seek funding in amounts sufficient to complete Phase 1.
9. CWA intends to enter into a Master Agreement with TWDB for its participation in the Project in an amount not to exceed \$29,000,000, through the State Participation Fund, which CWA must obtain before April 1, 2013 ("2013 Funding").
10. The Parties desire to amend the First Supplement: (A) so Houston may arrange for CWA to obtain the 2013 Funding to complete Phase 1 of the Project and begin Phase 2, without violating (i) the Debt Structure Requirement in Sections 6 of the First Supplement or (ii) the last paragraph of Section 7 of the First Supplement; and (B) to address other matters related to the 2013 Funding.
11. The Parties agree that the payments that CWA must make to TWDB under the Master Agreement are considered "other obligations", as referenced in Section 5A of the First Supplement.

12. Because the majority of the proceeds of the 2013 Funding will be spent on Phase 2, Houston and the Authority agree that for all purposes under the First Supplement, the 2013 Funding shall be deemed to have been issued to finance the costs of Phase 2.

NOW, THEREFORE, the City and Authority agree as follows:

#### ARTICLE I.

The recitals above are true and correct and are incorporated into this First Amendment by reference.

#### ARTICLE II.

**Section 1.** Section 1 of the First Supplement is amended to include the language below in the alphabetical order apparent in Section 1:

“2013 Funding” is defined in the recitals of this First Amendment.

“Unamortized Closing Costs” are those issuance costs that (i) are related to 2013 Funding, (ii) CWA applied for and is obligated to pay, including attorneys’ fees and financial advisors’ fees, and (iii) the TWDB will not allow CWA to pay for out of the proceeds of the 2013 Funding. Unamortized Closing Costs include the administrative fee charged under 31 T.A.C. § 363.1017 that will be due to the TWDB upon CWA’s closing of the 2013 Funding.

**Section 2.** Section 2 of the First Supplement is amended to include the following sentence at the end of Section 2:

Houston shall cause CWA to use its best efforts to obtain the 2013 Funding in the maximum amount of funds and most favorable financing terms available.

**Section 3.** The following portion of the First Paragraph of Section 6 of the First Supplement is amended to read as follows (all portions of Section 6 not included below remain unchanged):

Calculation and Administration of Phase 1 Annual New Untreated Water Facilities Payments. Notwithstanding any provision of this First Supplement, Houston shall cause the bonds, notes, or other obligations issued by CWA or Houston to finance Phase 1 to be structured such that there is no Annual Outstanding Debt Service for Phase 1 until after September 1, 2013. All of the Annual Outstanding Debt Service due under the 2013 Funding that is associated with Phase 1 costs will be deemed to be part of the Annual Outstanding Debt Service for Phase 2 (instead of being part of the Annual Outstanding Debt Service for Phase 1).

**Section 4.** A new Section 5B is included after Section 5A of the First Supplement and reads as follows:

Section 5B. Formula for Unamortized Closing Costs. The Authority shall pay Houston for Unamortized Closing Costs related to the 2013 Funding based on the following formula:

Authority's Share of Unamortized Closing Costs = (D/E) H

Where: "D" is the same amount in MGD as "D" provided in Subsection 5(2) of the First Supplement.

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year ending June 30, 2012, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"H" is a dollar amount equal to the total Unamortized Closing Costs.

**Section 5.** The following portion of the First Paragraph of Section 7 of the First Supplement is amended to read as follows (all portions of Section 7 not included below remain unchanged):

Calculation and Administration of Phase 2 Annual New Untreated Water Facilities Payments. Notwithstanding any provision of this First Supplement, Houston shall use its best efforts to cause the bonds, notes, or other obligations issued by CWA or Houston to finance Phase 2 to be structured such that there is no Annual Outstanding Debt Service for Phase 2 until after January 1, 2018. However, Annual Outstanding Debt Service due pursuant to the 2013 Funding that is associated with Phase 1 or Phase 2 costs, other than Unamortized Closing Costs, shall be included as part of the Annual Outstanding Debt Service for Phase 2 beginning on or after January 1, 2015.

**Section 6.** A new Section 7A is included after Section 7 of the First Supplement and reads as follows:

Administration of Unamortized Closing Costs. No later than April 1, 2013, Houston shall invoice the Authority for the Authority's Share of Unamortized Closing Costs based on the formula set forth in Section 5B. The Authority shall pay such invoice within 35 days of receipt in accordance with the wiring instructions provided by Houston in such invoice.

**Section 7.** The last Paragraph of Section 7 of the First Supplement is hereby deleted from the First Supplement.

**Section 8.** The last sentence of Section 13 of the First Supplement is amended to read as follows (all portions of Section 13 not included below remain unchanged):

Although CWA is the Project Manager and may issue bonds, notes, or other obligations for the Project (and although after the closing of the 2013 Funding, an entity other than CWA may from time to time own an interest in the Project), Houston shall at all times be obligated to provide the Authority with the Authority's Water Demand Allocation (including its Untreated Water Facilities Demand Allocation) pursuant to the Contract and this First Supplement.

#### ARTICLE III.

Except as modified herein, the Original Contract as amended by the First Supplement will remain in full force and effect. In the event of a conflict between the Original Contract (as modified by the First Supplement) and this First Amendment, this First Amendment will prevail. The effective date of this First Amendment is the date that this First Amendment is countersigned by the Houston Controller, as indicated below.

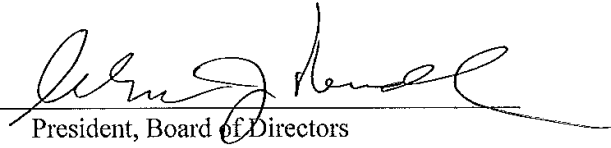
#### ARTICLE IV.

The Parties hereto have executed this First Amendment in multiple copies, each of which shall be an original.

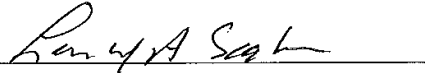
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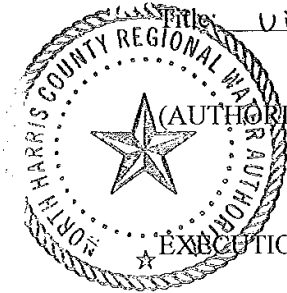


NORTH HARRIS COUNTY REGIONAL WATER  
AUTHORITY

By:   
President, Board of Directors


ATTEST:

By:   
Name: Lenox A. Sigler  
Vice President



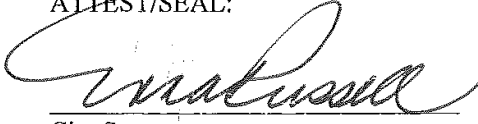
EXECUTION DATE: 12/28/12

APPROVED:


  
Jimmie Schindewolf, P.E.  
General Manager

CITY OF HOUSTON, TEXAS


ATTEST/SEAL:

  
\_\_\_\_\_  
City Secretary

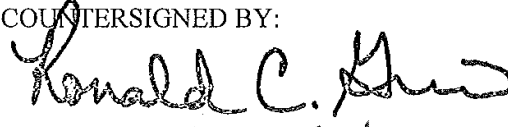
SIGNED BY:

  
\_\_\_\_\_  
Mayor *Matthew D. April*

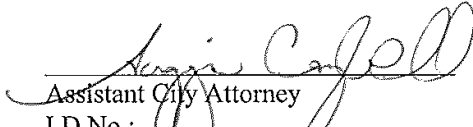
APPROVED BY:

  
\_\_\_\_\_  
Director, Public Works & Engineering  
Department  
*and*

COUNTERSIGNED BY:

  
\_\_\_\_\_  
City Controller *Jessie Polk*

APPROVED AS TO FORM BY:

  
\_\_\_\_\_  
Assistant City Attorney  
LD No.:  
*081200177001*

DATE COUNTERSIGNED:

1-22-13



C76189  
2015-0139

**SECOND SUPPLEMENT TO WATER SUPPLY CONTRACT BETWEEN THE CITY OF HOUSTON, TEXAS AND THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**

**FOR THE NORTHEAST WATER PURIFICATION PLANT EXPANSION**

**THIS SECOND SUPPLEMENT TO WATER SUPPLY CONTRACT** (this "Second Supplement") is by and between the **CITY OF HOUSTON** ("Houston") and **NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY** (the "Authority"), and is for the purpose of providing for the expansion of the Northeast Water Purification Plant located at 12121 North Sam Houston Parkway East, Humble, Texas 77396 ("NEWPP"). This Second Supplement is effective on the date of countersignature hereof by the Houston Controller ("Second Supplement Effective Date"). For and in consideration of the premises and the mutual covenants and agreements herein contained, the parties hereto do mutually agree as follows:

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## ARTICLE I

### *RECITALS*

- Section 1.1 Houston and the Authority entered into a Water Supply Contract effective as of December 16, 2002 (the "Original Contract"), under which Houston provides treated water to the Authority and the Authority pays costs for treatment and conveyance of the water by certain treated and untreated water facilities necessary to provide water to the Authority.
- Section 1.2 Pursuant to Ordinance 2009-0052 (January 28, 2009), Houston executed a First Supplement to Water Supply Contract with the Authority ("First Supplement") to provide for the permitting, engineering, surveying, construction, and right-of-way and site acquisition necessary for the Luce Bayou Interbasin Transfer Project ("Luce Bayou") to convey untreated water from the Trinity River to Lake Houston.
- Section 1.3 Houston and the Authority, along with the Other Authorities, further amended the Original Contract through a First Amendment to the First Supplement ("First Amendment") adopted pursuant to Ordinance No. 2013-0044 and effective as of January 22, 2013, in order to clarify certain funding for Luce Bayou.
- Section 1.4 Houston has entered into agreements with West Harris County Regional Water Authority, North Fort Bend Water Authority, and Central Harris County Regional Water Authority ("Other Authorities") that are substantially similar to the Original Contract, First Supplement, and First Amendment.
- Section 1.5 The Authority and each of the Other Authorities seek to increase their Treated Water Facilities Demand Allocation and Houston does not currently have sufficient capacity available in the Existing Treated Water Facilities to serve such increases, and Houston seeks to increase its own treated water capacity.
- Section 1.6 Houston and the Authority now desire to clarify and agree to terms for sharing the cost of the Expansion Project in order to provide additional treated water capacity from the NEWPP of 320 million gallons per day ("MGD") and to potentially provide certain oversizing of facilities.
- Section 1.7 Houston and the Authority believe that using design/build as the method of delivery of the Expansion Project, in accordance with Texas Government Code Chapter 2269, Subchapter H, is appropriate given the priorities of the Parties.

- Section 1.8 This Second Supplement provides for all Costs and Work associated with the Expansion Project. This Second Supplement does not include any work associated with rehabilitation or repair of the NEWPP's existing facilities, and this Second Supplement does not create any new obligation for the Authority to pay for rehabilitation or repair of the NEWPP's existing facilities.
- Section 1.9 Contingent upon the Project Parties timely satisfying their Cash Calls required by the Second Supplement and the Other Second Supplements, Houston and the Authority intend for Houston to cause the Expansion Project to be substantially complete as described in this Second Supplement in two phases with one delivery date not later than August 31, 2021 for 80 MGD of treated water capacity ("Phase 1") and another delivery date not later than June 30, 2024 for 240 MGD of treated water capacity ("Phase 2").
- Section 1.10 Houston shall use good faith efforts to timely complete Phase 1 and Phase 2; provided, however, Houston's undertaking to administer and oversee the Work shall not be deemed or construed as a guarantee of the cost of the Work or of the timely or successful completion of the Work.

## ARTICLE II DEFINITIONS

- Section 2.1 Unless otherwise defined in this Second Supplement, the capitalized terms used in this Second Supplement have the meaning provided in the Contract. In addition to the terms defined elsewhere in this Second Supplement, the following terms have the definitions provided below.
- Section 2.2 *Acquisition Costs* means the portion of the Costs associated with acquiring the Expansion Project Property, if any, whether by purchase or condemnation, including all reasonable costs related to title examination and title policies, due diligence, property surveying, payments to property owners, closing costs, environmental mitigation, litigation and court costs, permitting necessary for acquisition or environmental mitigation, court costs, and any other related costs arising out of the acquisition of the Expansion Project Property.
- Section 2.3 *Agreed Upon Procedures Report or AUP Report* means a report and associated findings produced by an independent accounting firm engaged by Houston under an Agreed-Upon Procedures Engagement conducted in accordance with (i) Section 8.6 of this Second Supplement, and (ii) the Statements on Standards for

Attestation Engagements published by the American Institute of Certified Public Accountants.

- Section 2.4 *Annual Financial Report* is defined in Section 8.2.
- Section 2.5 *Appropriate(d) Houston Funds* or *Appropriation of Houston Funds* means when both of the following have occurred with respect to Houston's funds (as opposed to funds from the Authority or Other Authorities): (i) Houston's City Controller has certified that a certain dollar amount of Cash or Cash Equivalent is available for the Expansion Project, and (ii) Houston's City Council has approved appropriating such dollar amount for the Expansion Project.
- Section 2.6 *Authority Fund* means a segregated fund established and controlled by Houston for the receipt and disbursement of the funds of the Authority and the Other Authorities, and used by Houston to pay for the pro-rata share of the Costs of the Authority and the Other Authorities, as set forth herein.
- Section 2.7 *Authority Meeting* is defined in Section 6.4.1.
- Section 2.8 *Authorized Investments* means investment pool(s): (i) that comply with the requirements of Houston's investment policy and Texas Government Code Chapter 2256, and (ii) in which Houston's funds (in addition to funds from the Authority) are invested.
- Section 2.9 *Budget* means the chart attached as Exhibit "B", which (a) reflects the estimated Costs for each Work Item and cumulative total thereof, and (b) will be revised in accordance with this Second Supplement to reflect the updated estimated Costs and the actual Costs for each Work Item and cumulative total thereof.
- Section 2.10 *Cash* means currency of the United States of America which, on the date of payment, is legal tender for the payment of debts due the United States of America.
- Section 2.11 *Cash Call* means one of a series of demands for funds from the Project Parties sent by the Project Director to pay for Costs in accordance with the requirements set forth in Section 3.7 of this Second Supplement.
- Section 2.12 *Cash Call Due Date* means the date specified in a Cash Call that either Cash or Cash Equivalent, at the option of each Project Party, is required from the Project Parties.

- Section 2.13 *Cash Equivalent* means one or more line(s) of credit or letter(s) of credit obtained by a Party from one or more financial institution(s). For Houston, in addition to line of credit and letter of credit, Cash Equivalent shall also include, as certified in writing by Houston's Controller, capacity in Houston's commercial paper program that is available for payment of Houston's pro-rata share of Costs, based on Houston's applicable Cost Share, and that is not committed for other use. The Project Director and the Representatives may collectively agree in writing to add to the items included in the term *Cash Equivalent*.
- Section 2.14 *Consensus Item* is defined in Section 6.3.
- Section 2.15 *Consensus Process* is defined in Section 6.1.
- Section 2.16 *Consensus Vote* is defined in Section 6.2.
- Section 2.17 *Construction Costs* means the costs associated with the construction of the Expansion Project, including all reasonable costs for labor, equipment, materials, electricity, fuel, and Consultant(s) (including construction management, inspection, and materials testing).
- Section 2.18 *Consultant(s)* means professional or legal service provider(s), whether a firm or an individual, engaged by Houston to assist in the planning, design, acquisition, and other Work.
- Section 2.19 *Contract* means the Original Contract, as supplemented by the First Supplement, and as amended by the First Amendment.
- Section 2.20 *Contract Price* means all or any portion of the Costs that Houston is obligated to pay: (i) to the Design/Builder, Contractor(s), or Consultant(s), including any guaranteed maximum prices, lump sum amount, maximum contract prices, and (ii) for the Acquisition Costs. No Costs shall be included in Contract Price unless the Costs have been approved in accordance with Section 6.3.
- Section 2.21 *Contract Non-Oversized Price* is defined in Section 3.14.4.
- Section 2.22 *Contract Oversized Price* means a dollar amount equal to the Costs included in a Contract Price for any and all Work Items for the Oversized Facilities to produce the Oversized Facilities Design Capacity and/or to meet Houston's seasonal demands for peaking.



- Section 2.23 *Contractor* means the Design/Builder; provided, however, in the event a delivery method other than design/build, pursuant to Texas Government Code Chapter 2269, Subchapter H, is employed by Houston, in accordance with this Second Supplement, Contractor shall instead mean the prime contractor for the Expansion Project.
- Section 2.24 *Cost Recovery Amounts* means the portion of the costs of Houston's employees' salaries, associated benefits, overhead, and itemized costs paid from the cost recovery fund (Houston's Fund 1001), that are allocated and attributable to the Expansion Project for the period beginning on December 1, 2014, and concluding as of the date of the Final Accounting, calculated in accordance with Section 3.13.
- Section 2.25 *Cost Share* means each Project Party's pro-rata share of the Costs for Phase 1, Phase 2, and Multi-Phase Work, which the Parties agree are set forth in the Participation Table, and may be adjusted in accordance with Section 3.2.
- Section 2.26 *Costs* means all or any portion of the costs for the Work, including the Engineering Costs, Construction Costs, Acquisition Costs, Cost Recovery Amounts, and any other costs the Parties are obligated to pay in accordance with this Second Supplement.
- Section 2.27 *Day* means calendar day, unless otherwise noted.
- Section 2.28 *Design/Builder* means the firm or firms selected pursuant to this Second Supplement to design and build the Expansion Project, in accordance with Texas Government Code Chapter 2269, Subchapter H.
- Section 2.29 *Direct Employee* shall have the meaning assigned in Section 3.13.
- Section 2.30 *Director* means Houston's Director of Public Works and Engineering.
- Section 2.31 *Downsizing Costs* is defined in Section 7.2.2.
- Section 2.32 *Engineering Costs* means the costs for engineering Work associated with the Expansion Project, including all reasonable costs for the planning, management, oversight, inspection, basis of design, engineering design, geotechnical investigations, surveys, estimates, pilot plant testing, materials testing, plans, specifications, investigations, and necessary permitting.
- Section 2.33 *Escrow Account* means an escrow account held by the Escrow Agent for the receipt of Cash or Cash Equivalent from the Authority to satisfy Cash Call(s) and

for the distribution of funds to Houston out of such account, for payment of the Authority's pro-rata share of Costs, based on the Authority's applicable Cost Share, all as set forth in this Second Supplement.

Section 2.34 *Escrow Agent* means an authorized financial institution of the Authority's choice, which may be changed from time to time, in accordance with good money management practices, to transfer funds from one financial institution to another, provided the funds are not released to the Authority until the conditions stated in the Escrow Agreement are met.

Section 2.35 *Escrow Agreement* means the escrow & pay agent agreement, in the form substantially similar to the form attached hereto as Exhibit "D," executed by the Authority, the Project Director (on behalf of Houston) and the Escrow Agent; provided, however, the Project Director, the Authority, and the Other Authorities may collectively agree in writing to modifications of the Escrow Agreement.

Section 2.36 *Estimated Non-Oversized Price* is defined in Section 3.14.

Section 2.37 *Estimated Oversized Price* is defined in Section 3.14.

Section 2.38 *Exempt Item* is defined in Section 6.5.

Section 2.39 *Expansion Project* means the undertaking that is the subject of this Second Supplement to be overseen by Houston in two Phases to design, permit, and construct the additional Treated Water Facilities to add 320 MGD of treated water capacity to the NEWPP. Provided, however, the Oversized Facilities may be oversized as described herein. Expansion Project does not include any rehabilitation or repair of the NEWPP's existing facilities.

Section 2.40 *Expansion Project Property* is defined in Section 5.4.

Section 2.41 *Expansion Project Reservation* means the Phase 1 Expansion Project Reservation and the Phase 2 Expansion Project Reservation.

Section 2.42 *Expansion Project Team* means the Project Director and other Houston employees and agents, authorized to manage the Work performed by Contractor and Consultant(s).

Section 2.43 *Final Accounting* is defined in Section 8.7.

Section 2.44 *Final Non-Oversized Price* is defined in Section 3.14.5.

- Section 2.45 *Final Oversized Price* is defined in Section 3.14.5.
- Section 2.46 *Material* shall have the meaning of such word as used under federal securities laws.
- Section 2.47 *MSRB* is defined in Section 10.16.
- Section 2.48 *Multi-Phase Work* means Work Items that benefit both Phase 1 and Phase 2, including without limitation, the new intake structure with pumping and conveyance facilities to provide untreated water from Lake Houston, the electrical substation, the high service pump station, Consultants' services, clearing and grubbing, drainage, any separate operation facility for the Expansion Project, permitting, environmental Work, Expansion Project Property (if any), fencing, security facilities, SCADA (supervisory control and data acquisition) system, access roads and/or paving, ground storage tanks, on-site conveyance facilities, office/control building, chemical facilities, sludge dewatering facilities, yard lighting, yard piping, maintenance or shop building, any rail spur, backwash facilities, and related appurtenances.
- Section 2.49 *Non-Payment Default* means any default described in Sections 3.9.4 or 3.9.5.
- Section 2.50 *Notice of Upcoming Cash Call* is defined in Section 3.7.1.
- Section 2.51 *Original Contract* is defined in Section 1.1.
- Section 2.52 *Other Authorities* is defined in Section 1.4.
- Section 2.53 *Other Representatives* means the individuals authorized under Other Second Supplements to act as on behalf of the Other Authorities regarding the Expansion Project.
- Section 2.54 *Other Second Supplements* means written agreements between Houston and the Other Authorities that are substantially similar to this Second Supplement.
- Section 2.55 *Overhead* is defined in Section 3.13.
- Section 2.56 *Overhead Factor* is defined in Section 3.13.2.
- Section 2.57 *Oversized Facilities* means certain Multi-Phase Work items that, pursuant to Section 3.14, may be oversized so that such facilities are capable of producing the Oversized Facilities Design Capacity and/or meeting Houston's seasonal demands for peaking. Oversized Facilities include, without limitation: the new

intake structure with pumping and conveyance facilities to provide untreated water from Lake Houston, the electrical substation, and the high service pump station. The Project Director and the Representatives may collectively agree in writing to revise the definition of Oversized Facilities.

- Section 2.58 *Oversized Facilities Contribution* is defined in Section 3.15.1.
- Section 2.59 *Oversized Facilities Design Capacity* means the amount of treated water, measured in MGD, that the Project Director reasonably determines that the Oversized Facilities are able to produce based on the Contractor's or a Consultant's analysis and Houston's available water rights that may be diverted from Lake Houston. The Oversized Facilities Design Capacity shall be an MGD amount that exceeds 320 MGD.
- Section 2.60 *Oversized Facilities Option* means the Authority's unrestricted right to an Oversized Facilities Reservation of 15 MGD which is further described in Section 3.15. The sum of the Oversized Facilities Option of the Authority plus the Oversized Facilities Options of the Other Authorities (under Other Second Supplements) equals 43 MGD.
- Section 2.61 *Oversized Facilities Reservation* means a Reservation in the Treated Water Demand Allocation limited to the Oversized Facilities, which the Authority may obtain as provided in Section 3.15.
- Section 2.62 *Oversizing Costs* means a dollar amount equal to the Costs included in the " $(W^B - W^A)$ " portion of the formula in Section 3.7.3, as revised by Section 3.7.4.
- Section 2.63 *Participation Table* means the table attached as Exhibit "A", detailing the Expansion Project Reservation and Cost Share of the Authority, the Expansion Project Reservations and Cost Shares of the Other Authorities, Houston's capacity and Cost Share in the Expansion Project, and the Oversized Facilities Design Capacity. The Participation Table may be revised in accordance with this Second Supplement.
- Section 2.64 *Party or Parties* means all or any of the following entities, as applicable: Houston and the Authority.
- Section 2.65 *Phase(s)* means Phase 1, Phase 2, or both.
- Section 2.66 *Phase 1 Expansion Project Reservation* is defined in Section 3.1.

- Section 2.67 *Phase 2 Expansion Project Reservation* is defined in Section 3.1.
- Section 2.68 *Phase AUP Report* is defined in Section 8.6.1.
- Section 2.69 *Phase Financial Report* is defined in Section 8.3.
- Section 2.70 *Presentation* is defined in Section 6.3.1.
- Section 2.71 *Project Director* means an individual designated by the Director and authorized to act on behalf of Houston in the manner described in this Second Supplement, which individual may be changed by the Director from time to time.
- Section 2.72 *Project Party* or *Project Parties* means all or any of the following entities, as applicable: Houston, the Authority, and the Other Authorities.
- Section 2.73 *Proposed Solution* is defined in Section 6.4.
- Section 2.74 *Representation* is defined in Section 3.6.
- Section 2.75 *Representative* means the individual authorized in writing by the Authority to act on behalf of an Authority in the manner described in this Second Supplement, or an alternate individual approved by the Authority, which individuals may be changed by the Authority from time to time.
- Section 2.76 *Representatives* mean the Representative and the Other Representatives.
- Section 2.77 *Representatives Issue* is defined in Section 6.4.
- Section 2.78 *Rule* is defined in Section 10.16.
- Section 2.79 *Schedule* means a chart attached as Exhibit "C," accurately reflecting the estimated and actual timing of Work Items, Cash Calls, and projected Substantial Completion Dates, which Schedule will be revised in accordance with this Second Supplement.
- Section 2.80 *Selection Reviewer* means an individual designated in writing by the Authority who is responsible to perform the functions of Selection Reviewer under Section 5.2 and who has provided the Project Parties with a written certification that he or she is not an employee or paid consultant of a firm involved in the submission of a proposal to Houston to serve as the Contractor.

- Section 2.81 *Substantial Completion* means the stage in the progress of the Work when the Work, or designated portion thereof, is sufficiently complete in accordance with the contract between Houston and the Contractor so Houston can occupy and utilize the Work for its intended use, as evidenced by a certificate of Substantial Completion issued by Houston.
- Section 2.82 *Substantial Completion Date* means, for each Phase, the date of Substantial Completion shown on the certificate of Substantial Completion issued by Houston.
- Section 2.83 *True-Up* means the process described in Section 8.8.
- Section 2.84 *True-Up Statement* is defined in Section 8.8.
- Section 2.85 *TWDB* is defined in Section 3.12.
- Section 2.86 *TWDB Expansion Funding* is defined in Section 3.12.
- Section 2.87 *Unpaid Reservation* is defined in Section 7.2.1.
- Section 2.88 *Unpaid Capacity* is defined in Section 7.4.1.
- Section 2.89 *Weighted Vote* is defined in Section 6.2.
- Section 2.90 *Withdrawal Request and Certificate* means, as further described in the Escrow Agreement, a written instrument that is signed by the Project Director and addressed to the Escrow Agent, for the purpose of withdrawing funds from the Escrow Account to pay the Authority's pro-rata share of Costs, based on the Authority's applicable Cost Share, pursuant to this Second Supplement.
- Section 2.91 *Work* means any of the labor, materials, equipment, administration, and other similar efforts and items necessary for the completion of the Expansion Project.
- Section 2.92 *Work Management System* means a remotely-accessible system or systems Houston uses to share information with the Expansion Project Team and Representatives, as further described in Section 4.4.
- Section 2.93 *Work Item* means a discrete portion of the Work that is attributable to Phase(s) of the Expansion Project and included in a Contract Price.

## ARTICLE III

### *COST SHARING & FUNDING*

Section 3.1. *Cost Sharing and Reservation.* The Authority seeks to increase its Treated Water Facilities Demand Allocation from 31 MGD to 144 MGD. Accordingly, the Authority hereby makes a Reservation request for 51.05 MGD in Phase 1 of the Expansion Project (the "Phase 1 Expansion Project Reservation") and 61.95 MGD in Phase 2 of the Expansion Project (the "Phase 2 Expansion Project Reservation"). For Phase 1, the Authority's Phase 1 Expansion Project Reservation shall be deemed approved on the Substantial Completion Date of Phase 1 if the Authority is not then in Non-Payment Default. For Phase 2, the Authority's Phase 2 Expansion Project Reservation shall be deemed approved on the Substantial Completion Date of Phase 2 if the Authority is not then in Non-Payment Default.

Section 3.2. *The Participation Table & Cost Share.* The Participation Table shall show (i) the Expansion Project Reservation and Cost Share of the Authority, the Expansion Project Reservations and Cost Shares of the Other Authorities, and Houston's capacity and Cost Share in the Expansion Project, and (ii) the Oversized Facilities Design Capacity.

3.2.1 The Participation Table and Costs Shares shall not change, unless (i) one or more of the Project Parties fails to timely satisfy any of its Cash Call obligations and any of the remedies in Sections 7.2, 7.3, or 7.4 are initiated, or (ii) one or more of the Project Parties assigns, in writing, a portion of its Expansion Project Reservation to another of the Project Parties.

3.2.2 Without the need for consent from any Project Party, any Project Party may assign to another Project Party, in writing, any portion of its Expansion Project Reservation, provided the assignee agrees in writing that the assignee assumes all of assignor's outstanding and future rights and obligations related to same. The price for such assignment may be as mutually agreed upon by the seller and buyer.

3.2.3 In the event the Costs Shares change pursuant to Section 3.2.1 or 3.2.2, and when the Oversized Facilities Design Capacity is determined as provided in Section 3.14, the Project Director shall cause the (i) prompt preparation of an updated Participation Table and posting of same on the Work Management System, and (ii) concurrent provision of an email (or other written notice) to the Representative notifying the Representative that the updated Participation Table has been posted to the Work Management System.

Section 3.3 *The Budget.* The Budget shall itemize the Cost of each Work Item and aggregate Costs for each Phase, for Multi-Phase Work, and for the Oversized Facilities. The



Project Director shall cause the: (i) prompt preparation and maintenance of an accurate Budget and posting of same on the Work Management System, and (ii) concurrent provision of an email (or other written notice) to the Representative notifying the Representative when an updated Budget has been posted to the Work Management System.

Section 3.4 *Houston's Previously Incurred Costs.* The Parties acknowledge that Houston has incurred Costs for the Expansion Project prior to the Second Supplement Effective Date. As a pre-condition to entering this Second Supplement, the Authority hereby agrees to pay for its pro-rata share of the Costs, based on its applicable Cost Share, incurred by Houston prior to December 1, 2014, which the Parties hereby agree is estimated to be \$645,768.52 subject to the provisions of Article VIII. The Authority agrees to pay Houston such \$645,768.52 within ninety (90) days of the Second Supplement Effective Date. All Costs incurred by Houston on or after December 1, 2014, shall be included in a Cash Call pursuant to Section 3.7 or 3.8. Subject to the provisions of Article VIII, the Authority is not responsible for any Costs incurred by Houston prior to December 1, 2014, other than such \$645,768.52 which amount includes the Cost Recovery Amounts incurred prior to December 1, 2014.

Section 3.5 *Rates.* Each Party represents and certifies that it will have on hand and lawfully available sufficient funds to make its payments due hereunder. Each Party recognizes its duty to, and covenants and agrees, that at all times it will establish and maintain, and from time to time adjust, the rates, fees, and charges for the services it provides to its customers to the end that the revenue therefrom, together with funds received from any other lawful source will be sufficient at all times to pay all of its obligations under this Second Supplement.

Section 3.6 *The Representative.* The Representative shall have the right to participate in the day-to-day Expansion Project activities and shall enjoy the same privileges of access as a member of the Expansion Project Team, including access to the Work Management System, Expansion Project-related activities, equipment, and workspace ("Representation").

3.6.1 No individual shall be qualified to serve as the Representative if he or she (i) is performing Work on the Expansion Project in his or her individual capacity or (ii) is an employee or owner of an entity that is performing Work on the Expansion Project.

3.6.2 Prior to or contemporaneous with the Authority authorizing an individual to serve as the Representative, the individual shall be required to provide the Project Parties with a written certification that confirms that the individual is in compliance with Section 3.6.1 and that the individual will remain in compliance with same during the period of time that the individual remains the Representative.



3.6.3 The Authority shall pay for the Representative's equipment and workspace to the extent such equipment and workspace is requested by the Representative and provided for the exclusive use of the Representative. The Project Director and the Representative may agree to purchase or lease terms for such equipment and/or work space as part of the Contract Price(s).

3.6.4 Notwithstanding the provisions above and consistent with this Second Supplement, the Project Director and the Representatives may further collectively agree on the manner in which they collaborate on Work, the Schedule, and the Budget.

Section 3.7 *Cash Calls in General.* The Project Director shall send Cash Calls to the Project Parties from time to time as necessary to fund the Expansion Project, and shall send each individual Cash Call to all the Project Parties on the same date; provided, however, no Cash Call shall be sent to the Project Parties after the date of the Final Accounting.

3.7.1 The Project Director shall provide all Project Parties with written notice ("Notice of Upcoming Cash Call") of: (i) the estimated Costs and Work Items to be paid with proceeds of the upcoming Cash Call, (ii) the estimated dollar amount due from each Project Party pursuant to the upcoming Cash Call and the calculation thereof, and (iii) the estimated Cash Call Due Date (which shall be no earlier than 180 days after the date the Project Director sends the Notice of Upcoming Cash Call to the Project Parties), all as reasonably estimated by the Project Director. Each Notice of Upcoming Cash Call shall include a certification that the Project Director reasonably expects to spend all of the proceeds of the Cash Call within 3 years of the Authority's Cash Call Due Date. The phrase "3 years" in the preceding sentence shall be changed to "5 years" for that Cash Call if the Project Director provides the Representatives a written certification from a licensed engineer that a period of at least 5 years is necessary to complete the Work included in the Cash Call.

3.7.2 Except as may be agreed to in writing otherwise by the Project Director, the Authority, and the Other Authorities, collectively, each Cash Call Due Date shall be (i) for the Authority, no earlier than the later of (A) 60 days after the date the Authority receives that particular Cash Call or (B) the estimated Cash Call Due Date provided in the Notice of Upcoming Cash Call, and (ii) for Houston, 30 days after the Authority's Cash Call Due Date. In no event shall a Cash Call Due Date be any later than 18 months after the date the Project Director sends the Notice of Upcoming Cash Call to the Project Parties.

3.7.3 Unless and until Houston, as set forth in Section 3.14.3, chooses to design and construct the Oversized Facilities to produce the Oversized Facilities Design Capacity and/or to meet Houston's seasonal demands for peaking, the Project Director shall use the formulas below to calculate each Project Party's Cash Call amount, the amount of the Authority's funds to be drawn from the Escrow Account, the amount of the Authority's funds to be drawn out of the Authority Fund, and the amount of Houston's funds to be drawn out of the Appropriation of Houston Funds:

**For the Authority and the Other Authorities:**

$$C = (P^1 * W^1) + (P^2 * W^2) + (P^M * W^M) + Z$$

**For Houston:**

$$C = (P^1 * W^1) + (P^2 * W^2) + (P^M * W^M) + Z$$

Where:

- C = Dollar amount of Cash (or for Cash Calls, the dollar amount of Cash or Cash Equivalent) due from the Project Party.
- P = The Project Party's Cost Share for the applicable Work as listed in the Participation Table, where: P<sup>1</sup> = Phase 1 Cost Share; P<sup>2</sup> = Phase 2 Cost Share; P<sup>M</sup> = Multi-Phase Work Cost Share.
- W = The Costs to be paid, where: W<sup>1</sup> = dollar amount of Costs for Phase 1; W<sup>2</sup> = dollar amount of Costs for Phase 2; W<sup>M</sup> = dollar amount of Costs for Multi-Phase Work.
- Z = Costs that a Project Party is obligated to pay at 100% pursuant to Section 3.6.3 of this Second Supplement or of Other Second Supplements.

3.7.4 If, as set forth in Section 3.14.3, Houston chooses to design and construct the Oversized Facilities to produce the Oversized Facilities Design Capacity and/or to meet Houston's seasonal demands for peaking, then the formulas in Section 3.7.3 above shall be revised as follows: (i) "W<sup>M</sup>" shall be revised to mean the dollar amount of Costs for Multi-Phase Work excluding all Costs of the Oversized Facilities, (ii) the Authority's formula above shall be modified to add after "Z", "+ (P<sup>M</sup> \* W<sup>A</sup>)", (iii) Houston's formula above shall be modified to add after "Z", "+ (P<sup>M</sup> \* W<sup>A</sup>)" and "+ (W<sup>B</sup> - W<sup>A</sup>)", and (iv) W<sup>A</sup> shall be the dollar amount of Costs for the approved Contract Non-Oversized Price and W<sup>B</sup> shall be the dollar amount of Costs for the approved Contract Oversized Price. (In

item "(iv)" of the preceding sentence, the term "approved" means approved in accordance with Section 6.3.). If the formulas are revised as described in the first sentence of this paragraph, then such revisions shall occur as of the effective date of the notice to proceed issued by Houston for the final design of the Oversized Facilities, which Houston shall issue in order to commence final design. Any reference to Section 3.7.3 in this Second Supplement shall be interpreted to include, if applicable, the revisions provided in this Section 3.7.4.

3.7.5 Each Cash Call shall include a written statement providing: (i) the actual dollar amount due from each Project Party pursuant to the Cash Call, but this actual dollar amount (A) shall not exceed the estimated dollar amount for that Project Party provided in the Notice of Upcoming Cash Call and (B) shall only be for Costs that have been approved in accordance with Section 6.3, for Exempt Item(s), or for Cost Recovery Amounts; (ii) the calculation of the amount of each Project Party's portion of the Cash Call; (iii) the Cash Call Due Date; (iv) the Costs and Work Items to be paid with the proceeds of the Cash Call; and (v) each Project Party's amount of surplus from previous Cash Calls, if any, as reasonably determined by the Project Director. At the time of sending a Cash Call to any Project Party, the Project Director shall provide a copy of that Cash Call to the other Project Parties via the Work Management System.

3.8 *Cash Call No. 1.* By the Parties' execution of this Second Supplement, Houston will be deemed to have issued to the Project Parties Cash Call No. 1 in the amount of \$6,975,173, as described in the attached Exhibit "E." Notwithstanding the provisions of Section 3.7 and Section 6.3: (i) the Authority's Cash Call Due Date for Cash Call No. 1 shall be 120 days after the Second Supplement Effective Date, and (ii) the Costs of such \$6,975,173 are deemed to be included in a Contract Price and are deemed to have obtained a Consensus Vote. Houston represents that it has already performed an Appropriation of Houston Funds in an amount equal to or greater than Houston's pro-rata share of Costs, based on Houston's applicable Cost Share for such Cash Call.

3.9 *Paying Cash Calls.* Houston shall pay Cash Calls in accordance with this Second Supplement, and the Authority shall pay Cash Calls in accordance with this Second Supplement and the Escrow Agreement.

3.9.1 In paying a Cash Call, and in accordance with the Escrow Agreement, the Authority shall, by its Cash Call Due Date, provide the Escrow Agent with Cash or Cash Equivalent, at the option of the Authority, in the amount of the funds required from the Authority by such Cash Call, which at the Authority's

option may include the application of any or all of the surplus identified in the Cash Call. In paying a Cash Call, Houston shall Appropriate Houston Funds by its Cash Call Due Date in the amount of the funds required from Houston by such Cash Call, which at Houston's option may include the application of any or all of the surplus identified in the Cash Call.

- 3.9.2 If the Authority satisfies a Cash Call with Cash, then the Authority shall be in default if any loss in investments made with such Cash in the Escrow Account causes insufficient Cash or Cash Equivalent to be available such that Houston is unable to timely draw the undrawn portion of the Cash Call that was satisfied with Cash. Provided, however, if the Authority promptly provides additional Cash or Cash Equivalent to replace such loss so that Houston is able to timely draw the undrawn portion of the Cash Call that was satisfied with Cash, then the Authority is deemed to not have been in default. If Houston presents a Withdrawal Request and Certificate to the Escrow Agent and Houston is unable to draw funds from the Escrow Account because of default described above in this Section 3.9.2, then the Authority shall pay Houston interest on the amount that Houston was unable to draw. Such interest shall be calculated at the interest rate described in Section 7.5 and shall accrue from the date Houston presents the Withdrawal Request and Certificate to the Escrow Agent until the date the Authority makes the funds available to Houston.
- 3.9.3 If an Appropriation of Houston Funds is comprised of Cash and if any loss in investments made with such Cash causes a reduction in such Cash so that Houston is unable to timely draw the undrawn portion of the Cash Call that was satisfied with Cash, then Houston shall promptly seek to Appropriate Houston Funds to replace such loss. If Houston fails to Appropriate Houston Funds to replace such loss, then Houston shall be in default, and Houston shall replace such loss prior to spending Cash from the Authority Fund.
- 3.9.4 If the Authority fails to provide Cash or Cash Equivalent or Houston fails to Appropriate Houston Funds by any Cash Call Due Date, as required by Section 3.9.1, then that Party shall be in default. In satisfying some or all of any Cash Call, if the Authority provides the Escrow Agent with Cash Equivalent or if Houston's Appropriation of Houston Funds is derived from Cash Equivalent, then the Authority or Houston, as applicable, shall be in default if it fails to both: (i) maintain the Cash Equivalent in place such that Houston is unable to timely draw the undrawn portion of the Cash Call that was satisfied with Cash Equivalent, and (ii) re-establish the Cash Equivalent (within 10 business days of receiving written notice) such that Houston is able to timely draw the undrawn portion of the Cash Call that was satisfied with the Cash Equivalent. (The phrase "written notice" in

the preceding sentence means a written notice (a) stating that the Cash Equivalent was not maintained, and (b) that is issued by the Project Director (if the notice is to the Authority) or issued by the Project Director or the Authority (if the notice is to Houston ).) If Houston fails to spend funds out of the Appropriation of Houston Funds as required by Section 3.11.1, then Houston shall be in default. As described in Section 2.49, default under this Section 3.9.4 shall be considered Non-Payment Default.

3.9.5 Cash Equivalent that is in the form of a line of credit may only be obtained from a financial institution which at the time of obtaining the Cash Equivalent has long term credit ratings in one of the three highest generic rating categories from at least two nationally recognized rating services. If at any time after the date a Party obtains a line of credit, the financial institution fails to meet the credit ratings requirement of the preceding sentence, then the Party shall (within 60 days after the date the financial institution failed to meet the credit ratings requirement) either replace the line of credit with: (i) Cash Equivalent that satisfies the credit ratings requirement, or (ii) Cash. After the expiration of such 60 days, a Party shall be in default if it fails (within 10 business days after receiving written notice from the Project Director or Authority (if the Party is Houston) or from the Project Director (if the Party is the Authority)) to replace the line of credit as described in the preceding sentence. As described in Section 2.49, default under this Section 3.9.5 shall be considered Non-Payment Default.

3.9.6 Cash or Cash Equivalent provided for any particular Cash Call shall only be used to pay for the Cash Call for which it was provided, unless it is determined to be surplus as provided in Section 3.7.5.

3.10 *The Escrow Account; Withdrawal of Funds.* Requests for disbursements from the Escrow Account shall be made in accordance with this Second Supplement and the Escrow Agreement. At such times as the Project Director reasonably determines that payments will be due to pay for the Work pursuant to this Second Supplement and Other Second Supplements, the Project Director shall provide to the Authority a written notice of its intent to draw from the Escrow Account along with a calculation of how each Project Party's draw amount has been calculated under Section 3.7.3.

3.10.1 No earlier than 5 days after providing such notice to the Authority, Houston, through the Project Director, shall deliver to the Escrow Agent a Withdrawal Request and Certificate that complies with the requirements of the Escrow Agreement (with a copy contemporaneously sent to Houston's Controller and the Representatives) in order to draw Cash from the Escrow Account.

3.10.2 Through the Work Management System, the Project Director shall notify the Project Parties of the following: (A) with respect to the Project Parties (other than Houston) the amount of Cash that Houston (via the Project Director) withdraws out of a Project Party's Escrow Account and the date of such withdrawals; and (B) with respect to Houston: (i) each date when Houston has Appropriated Houston Funds and the dollar amount of same, (ii) the dollar amount of all funds that Houston (via the Project Director) withdraws out of the Appropriation of Houston Funds and the date of such withdrawals.

3.10.3 The Authority shall maintain an Escrow Account meeting the requirements of this Section 3.10 until (i) the Authority receives a True-Up Statement calculated pursuant to Section 8.8 which indicates that the Authority no longer owes Houston any amounts related to the Expansion Project, or (ii) the Authority pays Houston the amount, if any, due from the Authority under such True-Up Statement.

3.11 *The Authority Fund.* All Authority funds withdrawn from the Escrow Account shall be immediately deposited into the Authority Fund and held in the Authority Fund until payment is made for the Costs. All Authority funds held in the Authority Fund shall be held by Houston in trust for the benefit of the Authority.

3.11.1 Houston, through the Project Director, shall spend funds in the Authority Fund only for (i) Costs that have been approved in accordance with Section 6.3 (or for Exempt Item(s)) for which Houston's Controller certified the availability of funds, and (ii) Cost Recovery Amounts. For each and every payment made by Houston out of the Authority Fund, Houston shall: (i) with respect to the Authority's funds held in the Authority Fund, withdraw an amount equal to the Authority's pro-rata share of the Costs to be paid for same, which shall be determined in accordance with the formula applicable to the Authority stated in Section 3.7.3; and (ii) contemporaneous with Houston's withdrawal of Authority funds for the payment, Houston shall spend funds out of the Appropriation of Houston Funds in an amount equal to Houston's pro-rata share of the Costs to be paid for same, which shall be determined in accordance with the formula applicable to Houston stated in Section 3.7.3.

3.11.2 For the pro-rata benefit of the Authority and Other Authorities, Houston's Controller shall invest the funds on hand in the Authority Fund in the Authorized Investments. All earnings and interest that are attributable to the Authority's funds on deposit in the Authority Fund shall inure to the benefit of the Authority.

3.11.3 The Project Director shall calculate the accrued interest and earnings in the Authority Fund and distribute the remaining proceeds from such interest and

earnings as part of the True-Up. Provided, however, if requested in writing by the Representative, the Project Director shall reduce the size of subsequent draw(s) from the Escrow Account by the amount of such interest and earnings.

3.12 *TWDB Funding.* The Project Parties shall endeavor to work in good faith to file applications with the Texas Water Development Board ("TWDB") for financing assistance for the Expansion Project on terms acceptable to each Project Party ("TWDB Expansion Funding").

3.12.1 The Director and the Authority's Board President shall be authorized to sign an amendment to this Second Supplement for the specific and limited purpose of accommodating TWDB Expansion Funding, without further approval from the governing bodies.

3.12.2 Nothing in this Second Supplement shall be construed to limit the Authority's right or Houston's right to independently seek TWDB funding for projects other than the Expansion Project.

3.12.3 No Project Party shall request funding for any portion of the Expansion Project from any TWDB funding program that would impose more stringent requirements on the Expansion Project than the requirements applicable to the State Water Implementation Fund, without first obtaining a Consensus Vote in favor of such requested funding. In connection with, and prior to, such Consensus Vote, the requesting Project Party shall provide each of the Project Parties with the draft funding application to be submitted to the TWDB.

3.13 *Cost Recovery Amounts.* Cost Recovery Amounts shall include a portion of the salary and associated benefits for each of Houston's employees who track their hours worked on Houston's construction projects (each a "Direct Employee"), plus a portion of the costs in Houston's Fund 1001 that are not associated with salaries and benefits for Direct Employees ("Overhead"), both of which shall be calculated in the manner described below.

3.13.1 Cost Recovery Amounts for Direct Employees shall be determined by multiplying (i) the cost to Houston of the salary and benefits of each Direct Employee, expressed as an hourly rate, by (ii) the hours each Direct Employee recorded as spent working on the Expansion Project.

3.13.2 The Cost Recovery Amounts for Overhead shall be calculated by multiplying (i) the percentage that Cost Recovery Amounts for Direct Employees (calculated pursuant to 3.13.1) bears to Houston's total cost of salaries and benefits for all



Direct Employees (the "Overhead Factor"), by (ii) the costs in Houston's Fund 1001 that are not associated with the salary and benefits for Direct Employees.

3.14 *Oversized Facilities Determination & Administration.* Prior to commencement of final design of the Oversized Facilities, the Project Director shall (a) reasonably determine the amount (in MGD) of the Oversized Facilities Design Capacity; and (b) obtain from the Contractor: (i) an estimate of the dollar amount of the cost to design and construct the Oversized Facilities to produce 320 MGD of treated water ("Estimated Non-Oversized Price"), and (ii) an estimate of the dollar amount of the cost to design and construct the Oversized Facilities to produce the Oversized Facilities Design Capacity and/or to meet Houston's seasonal demands for peaking ("Estimated Oversized Price").

3.14.1 Within 5 days of the Project Director receiving the Estimated Non-Oversized Price and the Estimated Oversized Price, the Project Director shall (i) post the Estimated Non-Oversized Price and the Estimated Oversized Price, and all related documents, including the technical specifications and estimated price for all Work Items on the Work Management System, and (ii) concurrently provide an email (or other written notice) to the Representative of such posting.

3.14.2 The Project Director shall present the Estimated Non-Oversized Price and the Estimated Oversized Price as Consensus Items in accordance with Section 6.3. The Project Director shall include in such presentation the technical specifications and estimated price of all Work Items that are included in the Oversized Facilities in both the Estimated Non-Oversized Price and the Estimated Oversized Price.

3.14.3 Houston may choose to construct the Oversized Facilities to produce the Oversized Facilities Design Capacity and/or to meet Houston's seasonal demands for peaking only if (a) the Estimated Non-Oversized Price and Estimated Oversized Price are approved by Consensus Vote; and (b) the Project Director revises the Cash Call Formula as provided in Section 3.7.4.

3.14.4 If Houston chooses to design and construct the Oversized Facilities to provide the Oversized Facilities Design Capacity and/or to meet Houston's seasonal demands for peaking, then the Project Director shall also be required, as part of the applicable presentation for the Costs to be included in a Contract Price for such Work Items, to adjust the Estimated Non-Oversized Price for each Work Item ("Contract Non-Oversized Price") by multiplying (a) the Estimated Non-Oversized Price of the Work Item by (b) the quotient of the Contract Oversized



Price (numerator) and the Estimated Oversized Price (denominator) of the same Work Item.

- 3.14.5 If Houston has constructed the Oversized Facilities to provide the Oversized Facilities Design Capacity and/or to meet Houston's seasonal demands for peaking, then the Project Director will update the Budget to reflect all actual and final Costs for each Work Item included in a Contract Oversized Price ("Final Oversized Price"). Subject to True-Up, the Project Director shall also update the Budget to show an adjustment to the Contract Non-Oversized Price ("Final Non-Oversized Price"), which is the result of multiplying (a) the Contract Non-Oversized Price of the Work Item by (b) the quotient of the Final Oversized Price (numerator) and the Contract Oversized Price (denominator) of the same Work Item. If the Contract Non-Oversized Price exceeds the Final Non-Oversized Price, then as documented in an Annual Financial Report, the excess shall be deemed surplus for purposes of Section 3.7.5. The Final Oversized Price and the Final Non-Oversized Price are subject to True-Up under Article VIII.

3.15 *Oversized Facilities Options & Reservations.* This Section 3.15 shall be applicable only if Houston chooses to design and construct the Oversized Facilities to produce the Oversized Facilities Design Capacity. After the last Phase AUP Report is prepared pursuant to Article VIII, and at any time prior to December 31, 2045, the Authority shall have the unrestricted right to an Oversized Facilities Reservation up to the Authority's Oversized Facilities Option. Houston shall be obligated to approve such Oversized Facilities Reservation within 60 days of receipt of (a) the Authority's request for the Oversized Facilities Reservation; and (b) the cost due from the Authority for the Oversized Facilities Contribution, in accordance with the formula below (instead of the cost-sharing formula for Treated Water Facilities Capital Contribution set forth in Section 3.03 of the Contract).

- 3.15.1 Within 60 days after receiving a request from the Authority for a calculation of the cost that may be due under the formula below ("Oversized Facilities Contribution"), Houston shall provide such calculation to the Authority.

[(Oversizing Costs as reflected in the Final Accounting + Houston's related borrowing costs)/Oversized Facilities Design Capacity in MGD] \* the Authority's Oversized Facilities Reservation in MGD. In the formula above, the phrase "Houston's related borrowing costs" shall mean the portion of Houston's actual interest and issuance costs then-incurred by Houston on its bonds and other financial instruments to the extent they are attributable to the Oversizing Costs, after taking into account any actual savings from any refundings or defeasances of such bonds or other financial instruments.

For each issue of Houston's bonds and other financial instruments described above, Houston shall include in the Final Accounting: (i) the name and principal amount issued, (ii) a summary of costs of the projects financed, including issuance costs, (iii) the calculation of "Houston's related borrowing costs" (as of the Final Accounting) as described in the preceding paragraph, and (iv) a debt service schedule showing all interest and principal payments due from Houston. At the time of calculation of any payment pursuant to the formula in the preceding paragraph, the items listed in the preceding sentence will be updated to take into account any actual savings from any refundings or defeasances of such bonds or other financial instruments.

3.15.2 If the Authority has not requested an Oversized Facilities Reservation in amounts up to its Oversized Facilities Option, then starting on December 31, 2045 and continuing through the term of this Second Supplement, Houston shall not sell, use, or transfer capacity in the amount remaining in the Authority's Oversized Facilities Option such that the Authority would be unable to obtain its remaining Oversized Facility Option unless Houston first provides the Authority with written notice of same and a 90 day opportunity to make an Oversized Facilities Reservation for an amount up to the Authority's remaining Oversized Facilities Option. Houston shall be obligated to approve such Oversized Facilities Reservation within 60 days of receipt of (a) the Authority's request for the Oversized Facilities Reservation; and (b) the cost due from the Authority's Oversized Facilities Contribution.

3.15.3 After the last Phase AUP Report is prepared pursuant to Article VIII, and at any time prior to December 31, 2045, the Authority shall have the unrestricted right to increase its Untreated Water Facilities Demand Allocation by an amount up to its Oversized Facilities Option, by submitting a request for a Reservation to Houston for such increase. Houston shall be obligated to approve such Reservation within 60 days of receipt of the Authority's request. Thereafter, the Authority shall hereby be obligated to make all payments for such increase in Untreated Water Facilities Demand Allocation in accordance with the due dates and calculations set forth in the provisions of the Contract. Within 60 days after receiving a request from the Authority for a calculation of the payments due for an increase in Untreated Water Facilities Demand Allocation, Houston shall provide such calculation to the Authority. The Authority may only obtain an Untreated Water Facilities Demand Allocation under this paragraph in an amount of MGD that does not exceed the Oversized Facilities Reservation that it previously or concurrently obtained; provided,

however, this sentence shall not be construed to limit the Authority's right to increase its Untreated Water Facilities Demand Allocation under the terms of the Contract.

3.15.4 If, prior to December 31, 2045, the Authority has not increased its Untreated Water Facilities Demand Allocation by the entire Oversized Facilities Option, then starting on December 31, 2045 and continuing through the term of this Second Supplement, Houston shall not sell, use, or transfer untreated water such that the Authority would be unable to obtain its remaining Oversized Facilities Option unless Houston first provides the Authority with written notice of same and a 90 day opportunity to make a request for a Reservation for such increase. Houston shall be obligated to approve such Reservation within 60 days of receipt of the Authority's request. Thereafter, the Authority shall hereby be obligated to make all payments for such increase in Untreated Water Facilities Demand Allocation in accordance with the due dates and calculations set forth in the provisions of the Contract.

3.15.5 After completion of the Expansion Project, the Authority may utilize any portion of its Oversized Facilities Reservation (for which it has paid its Oversized Facilities Contribution) at such time as the Authority increases (by an equal amount of MGD) its Untreated Water Facilities Demand Allocation and Treated Water Facilities Demand Allocation in the NEWPP (but no additional payment will be required for Oversized Facilities).

3.15.6 Any Project Party may in whole or in part assign, in the same manner as provided in Section 3.2.2 for Expansion Project Reservations, the Oversized Facilities Reservation and any Reservation that increases its Untreated Water Facilities Demand Allocation under this Section 3.15.

#### **ARTICLE IV**

#### ***WORK & SCHEDULE***

Section 4.1 *Control of the Work.* Houston, through the Project Director, shall manage the Work, including design, acquisition of the Expansion Project Property, and construction of the Expansion Project, in accordance with the Budget, Schedule, applicable laws and regulations, and this Second Supplement. Subject to the terms of this Second Supplement, Houston shall control and supervise the detailed manner or method of execution of all Work items and be responsible for the management and compensation of all personnel performing the Work. Houston's control of the Work and the Representative's involvement in

the Work described under this Second Supplement shall not change the nature of the relationship established in contracts between Houston and the Contractor or Consultants.

Section 4.2 *The Schedule.* The Project Director shall cause the prompt: (i) preparation and maintenance of an accurate Schedule and posting of same on the Work Management System, and (ii) concurrent provision of an email (or other written notice) to the Representative notifying the Representative when an updated Schedule has been posted to the Work Management System.

Section 4.3 *Bonds, Indemnity, and Insurance.* In order to meet applicable legal requirements and protect the Parties from reasonably foreseeable risks associated with the Work, Houston shall require: (i) any Contractor to provide adequate insurance coverage and payment and performance bonds, and (ii) any Consultant providing engineering services (and any other Consultant as reasonably determined by Houston) to provide adequate insurance coverage. Houston shall require any written contract with a Contractor and each Consultant engaged by Houston after the Second Supplement Effective Date to name the Authority: (a) as an additional insured (including waivers of subrogation by insurance carriers) to the extent permitted by law and to the extent that such Contractor or Consultant provides same in favor of Houston, and (b) as a party included under indemnity, hold harmless, release, and defense provisions to the extent permitted by law and to the extent that such Contractor or Consultant provides same in favor of Houston. With respect to Consultants providing Engineering Services contracted with Houston prior to the Second Supplement Effective Date, Houston shall accomplish the provisions of the previous sentence no later than 30 days after the Second Supplement Effective Date. The Project Director shall post copies of all such contracts and applicable insurance policies on the Work Management System. The Project Director and the Representatives collectively may agree to revisions to this paragraph.

- 4.3.1 The Project Director shall reasonably determine whether to make a claim under any first party insurance policy (such as a property insurance policy) or bond in connection with the Expansion Project. If the Project Director makes such a claim, the Project Director shall promptly distribute proceeds from the claim or bond in proportion to the Authority's applicable Cost Share related to the subject of the claim as follows: (i) to the Authority Fund for the benefit of the Authority, or (ii) to the Authority if the Project Director reasonably determines that such proceeds are surplus. In the event a Party makes a claim on an insurance policy or Houston makes a claim on a bond, such Party shall provide written notice to all Project Parties.

Section 4.4 *Work Management System.* To the fullest extent practicable, Houston shall cause all information and documents related to the Expansion Project to be accessible to the Expansion Project Team and the Representative through the Work Management System.

- 4.4.1 In order to protect information and documents in the Work Management System, the Project Director may require the Representative to agree to reasonable access conditions and non-disclosure terms.
- 4.4.2 The Project Director and Representative may agree on additional or different accessibility and contents of the Work Management System in order to facilitate collaboration and timely completion of the Work.
- 4.4.3 The Authority does not by way of this Second Supplement acquire any title, ownership interest, copyright or any other ownership right, to any information, document, or intellectual property, of any kind, stored or visible on the Work Management System. To the extent that any information, document, or intellectual property is not produced for the exclusive use of the Authority, the Authority shall not claim ownership of any intellectual property, or other ownership interest in the Work Management System, or related services, information, documents, charts, diagrams, specifications, and other tangible or intangible material of any nature whatsoever contained on the Work Management System. All patents, copyrights, and other proprietary rights related to the Work Management System and its components, shall be the sole and exclusive property of Houston, Contractor or Consultant(s). However, the Authority shall be entitled to use the Work Management System and all of its contents in order to achieve the purposes provided for in this Second Supplement.

## ARTICLE V

### **PROJECT DELIVERY**

Section 5.1 *Procurement Generally.* In accordance with this Second Supplement, Houston shall develop all documents and forms, such as solicitations and contracts, for procurement of all Work, Expansion Project Property, equipment, and materials necessary or desirable for completion of the Expansion Project. The Project Director shall place such documents and forms on the Work Management System prior to any public use of these documents.

Section 5.2 *Selection of Contractor.* In accordance with applicable law, Houston shall prepare and publish the request for qualifications of the Contractor. After Houston receives statements of qualifications from firms interested in submitting proposals for the Expansion Project, Houston shall provide said statements to the Selection Reviewer if the Selection Reviewer has

agreed in writing to reasonable non-disclosure terms provided by the Project Director. No firm shall be qualified for final selection under Section 2269.359(c), Texas Government Code, unless Houston and at least two of the Selection Reviewers of the following four governmental entities agree in writing that such firm is qualified: Central Harris County Regional Water Authority, North Fort Bend Water Authority, North Harris County Regional Water Authority, and West Harris County Regional Water Authority.

- 5.2.1 Thereafter, Houston shall provide a draft of the request for proposals, including a draft of the contract to be entered into between Houston and the Contractor, to the public, including qualified firms and the Selection Reviewer, for comments. After considering the comments provided and publishing to the public the comments and how they were addressed, Houston shall, in accordance with applicable law, publish the final request for proposals. The Project Director and the Selection Reviewer of all Project Parties (other than Houston) may collectively agree in writing to modifications of this paragraph.
- 5.2.2 In accordance with applicable law, including Texas Government Code Chapter 2269, Subchapter H, Houston shall (i) decide the firm with which it will negotiate a contract and provide notice to the Selection Reviewer of its decision; and (ii) after successful negotiations between Houston and a firm and after receipt of a Consensus Vote in favor of the final contract to be entered into between Houston and the firm, enter into a contract with the firm. In connection with, and prior to, such Consensus Vote, Houston shall provide the Selection Reviewer with the technical proposal and cost proposal that such firm provided to Houston, subject to the Selection Reviewer agreeing to reasonable non-disclosure terms provided by the Project Director.
- 5.2.3 If the Representative does not meet the eligibility qualifications required of the Selection Reviewer, as provided in Section 2.80, then the Selection Reviewer shall (i) assume all of the Representative's responsibilities related to the Consensus Vote described in Sections 5.2.2(ii) and 6.3(5), and (ii) provide written notice of such assumption to the Project Parties prior to such assumption occurring.
- 5.2.4 Pursuant to Section 2269.053, Texas Government Code, and only to the extent of the terms and conditions of this Section 5.2 and Section 6.3, Houston hereby delegates certain of its authority under Texas Government Code Chapter 2269 to the Selection Reviewers of the following four governmental entities: Central Harris County Regional Water Authority, North Fort Bend Water Authority, North Harris County Regional Water Authority, and West Harris County



Regional Water Authority. Houston shall provide notice of this delegation as required by Section 2269.053(b), Texas Government Code.

Section 5.3 *Design*. After entering into a contract with the Contractor, the Project Director shall cause the Contractor to promptly proceed with the design of the Expansion Project.

Section 5.4 *Expansion Project Property*. This Section shall not be effective unless the Project Director (i) reasonably determines that rights of way and other interests in real property adjacent to or in the immediate vicinity of the existing NEWPP site are necessary for the Expansion Project (“Expansion Project Property”), and (ii) provides written notice to the Representative of the Expansion Project Property to be acquired. In accordance with the Schedule and Consensus Process, Houston shall acquire the Expansion Project Property for a Contract Price. The Project Director shall reasonably determine the method and form that Houston uses to acquire the Expansion Project Property and may hire Consultants to acquire or assist in acquisition of the Expansion Project Property on Houston’s behalf. Payments made by the Authority pursuant to this Second Supplement do not give the Authority an ownership interest in the Expansion Project Property.

Section 5.5 *Engineering and Construction Contract Price*. In accordance with the Schedule, Consensus Process, and other terms of this Second Supplement, the Project Director shall negotiate, on behalf of the Project Parties, Contract Prices for the Work associated with the Engineering Costs and Construction Costs.

Section 5.6 *Construction*. After obtaining the necessary design for the applicable portion of the Expansion Project, necessary permits and approvals, and a Contract Price for all or part of the Work, Houston shall cause the performance of the Work related to such Contract Price in accordance with the terms of this Second Supplement.

Section 5.7 *Contractor Schedule*. Houston shall include in the final request for proposals and in any contract with the Contractor a requirement that the Contractor achieve substantial completion of Phase 1 no later than August 31, 2021 and Phase 2 no later than June 30, 2024, subject to Houston’s customary terms and provisions within such contracts regarding extension of time. The Project Director and the Representatives may collectively agree in writing to modifications of this paragraph.

Section 5.8 *Dispute Arising from the Work*. In the event that Houston is in a dispute with the Contractor or Consultants regarding the Work that results in settlement, litigation or other formal or informal dispute resolution, then the reasonable costs of same (including, without limitation, legal fees, court costs, expert witness fees, filing fees, and judgment payments or settlement payments paid to the Contractor or Consultants) shall be treated as a Cost such that each Project Party will be responsible for its applicable Cost Share related to the subject of the payment.

5.8.1 Any settlement agreement related to such a dispute shall be treated as a Consensus Item subject to the Consensus Process, and the settlement agreement shall also be subject to approval by Houston's City Council if required by law. Any judgment payments or settlement payments received by Houston shall inure to the benefit of the Project Parties in proportion to each Project Party's applicable Cost Share related to the subject of the payment.

5.8.2 Notwithstanding any provision of this Second Supplement and to the fullest extent permitted by law, including Houston's Charter and Code of Ordinances (to the extent the Ordinances are not inconsistent with this Second Supplement), any Project Parties that collectively comprise more than 63% of the Multi-Phase Cost Shares, as provided in the Participation Table, shall have the right by written instrument delivered to Houston, to direct the method and manner of conducting all proceedings related to such litigation or other dispute resolution or for any remedy available to Houston under the contracts with the Contractor or Consultants; provided, however, that such direction shall not be contrary to law or the provisions of this Second Supplement.

Section 5.9 *Miscellaneous Services.* As part of a Contract Price, Houston may engage various Consultants to provide miscellaneous Work.

## ARTICLE VI

### **CONSENSUS PROCESS**

Section 6.1 *Consensus Process.* Notwithstanding any other provision of this Second Supplement, the Project Parties shall use and be bound to the process provided in Sections 6.2 through 6.6 below for Work-related items and issues that may arise during the Expansion Project under Article III through VI of this Second Supplement ("Consensus Process"). The Project Parties shall endeavor to work in good faith to attempt to resolve issues without resorting to the process described in Section 6.4.

Section 6.2 *Weighted Vote; Consensus Vote.* The Project Director, Representative, and the Other Representatives shall each have a vote on a Consensus Item or a Representatives' Issue, as such terms are defined below, weighted equal to the respective Project Party's Multi-Phase Cost Share provided in the Participation Table ("Weighted Vote"). Any total Weighted Vote of the Project Parties that exceeds 63% in favor of a particular option voted upon ("Consensus Vote") shall be binding on all Project Parties to the fullest extent permitted by law.

Section 6.3 *Consensus Items.* At any time during the Expansion Project, a Consensus Vote shall be required to approve the following items (each, a "Consensus Item"): (1) the Costs that



Houston proposes to include in the Contract Price(s), plus any related contingency costs; (2) the Estimated Non-Oversized Price, Contract Non-Oversized Price, Estimated Oversized Price and Contract Oversized Price; (3) any change(s) to the contract with a Contractor that change either date reflected in Section 5.7 by more than 60 cumulative days; (4) any emergency purchase order under Section 6.6; and (5) the final contract to be entered into between Houston and the firm described in Section 5.2.2(ii).

- 6.3.1 The Project Director shall present Consensus Items to the Representative and the Other Representatives via the Work Management System (the "Presentation"); provided, however, the Presentation for an emergency purchase order under Section 6.6 shall also be provided directly to the Representative. The Presentation shall provide the Representative with: (i) a technical overview, cost breakdown, action required by the Project Parties, and the alternatives considered for the Consensus Item, as applicable, and (ii) for Consensus Items involving Contract Price(s), an updated Budget.
- 6.3.2 The Representative shall provide to the Project Director in writing the official vote on behalf of the Authority within seven (7) business days of the date the Presentation is posted to the Work Management System (or, for any emergency purchase order under Section 6.6, within two (2) business days of the date the Presentation is posted to the Work Management System), otherwise the Authority shall be deemed to have voted in favor of the Consensus Item. (For purposes of the preceding sentence, "the date the Presentation is posted to the Work Management System" shall be the later of: (i) the date the Presentation is placed on the Work Management System, or (ii) the date an email (or other written notice) is received by the Representative from the Project Director notifying the Representative that the Presentation has been placed on the Work Management System.) The Representative shall include with any vote against a Consensus Item a brief summary of the reasons the Authority does not support the Consensus Item. If the vote fails to result in a Consensus Vote in favor of the Consensus Item, then the Consensus Item is not approved. Provided, however, if the failed vote relates to Costs that Houston proposed to include in a Contract Price (or relates to Estimated Non-Oversized Price, Contract Non-Oversized Price, Estimated Oversized Price, or Contract Oversized Price), then the Project Director shall continue thereafter, with all due haste, to provide the Project Parties with modified proposal(s) regarding such items in order to attempt to obtain a Consensus Vote. Absent a written statement to the contrary by the Project Director provided to the Representatives prior to the vote, the Project Director is deemed to cast Houston's vote in favor of the Consensus Item.

Section 6.4 *Representatives' Issues.* At any time during the Expansion Project, two or more Representatives may submit a written request to the Project Director with a copy to the Project Parties to require additional discussion of an issue concerning Representation, or design, construction, progress, or manner of execution of the Expansion Project ("Representatives' Issue(s)") if: (1) The requesting Representatives have previously notified the Project Director of the issue and a proposed solution or alternative course of action (collectively, "Proposed Solution(s)"); and (2) The written request includes a summary of the Representatives' Issue and the Proposed Solution, and is sent not later than five (5) business days after a decision by the Project Director on the subject matter of the Representatives' Issue is posted to the Work Management System. (Item (2) of the preceding sentence shall not be construed to preclude a Representative Issue from being sent prior to the decision being posted to the Work Management System.)

- 6.4.1 Within five (5) business days of receiving written notice of the Representatives' Issue, the Project Director shall convene a meeting ("Authority Meeting") with the Representative and the Other Representatives to discuss the Representatives' Issue and the Proposed Solution unless the Representatives' Issue is withdrawn in writing prior to the Authority Meeting.
- 6.4.2 If by 11:59 p.m. on the day of the Authority Meeting, any Representative requests a Weighted Vote regarding the Proposed Solution, then the Project Director, the Representative, and the Other Representatives shall provide to the Project Parties in writing the official vote on behalf of each respective Project Party within five (5) business days of the Authority Meeting. If the Representative fails to cast its vote timely, the Representative shall be deemed to have voted the same way as the Project Director. If the Proposed Solution receives a Consensus Vote, then such vote shall be binding on the Project Parties to the fullest extent permitted by law. As set forth in Section 6.5 below, no Consensus Vote shall occur on Exempt Items, but Exempt Items may become Representatives' Issues and may be the subject of an Authority Meeting, as set forth in this Section.
- 6.4.3 If a vote on the Proposed Solution fails to result in a Consensus Vote in favor of the Proposed Solution, one or more Representative(s) comprising at least 20% of the Weighted Vote may appeal to the Director by sending written notice of appeal to the Project Parties and the Director within 3 business days of such vote. Within 5 business days of receiving notice of an appeal, the Director may choose to change the vote cast on behalf of Houston. If the Director chooses to change Houston's vote, and such change results in a Consensus Vote in favor of the Proposed Solution, then that Consensus Vote shall be binding on the Project Parties to the fullest extent permitted by law. If (i) a notice of appeal is not sent, (ii) the Director does not change Houston's vote within 5 business days, or (iii)

any such change does not result in a Consensus Vote, then the decision by the Project Director on the subject matter of the Representatives' Issue (referred to in Section 6.4) shall be binding on the Project Parties to the fullest extent permitted by law.

- 6.4.4 The process set forth in this Section 6.4 is not intended to cause an amendment to the express provisions of this Second Supplement without a written instrument being executed by the governing bodies of Houston and the Authority pursuant to Section 10.4; provided, however, such process is intended to cause implementation of any Proposed Solutions that receive Consensus Vote.

Section 6.5 *Exempt Items.* The Project Parties agree that any items shall not be subject to a Consensus Vote if the Director, in his or her reasonable discretion, determines the items are necessary to comply with any applicable regulatory requirements related to workplace safety, public safety, operations, or regulatory compliance, including environmental compliance, related to the Expansion Project or the existing NEWPP (collectively, the "Exempt Item(s)"). If the Director determines, in his or her reasonable discretion, that a matter constitutes an Exempt Item, then the Director shall (i) provide the Authority with written notice of such determination, and (ii) in good faith consider any comments or input provided by the Authority related to the Exempt Item(s).

Section 6.6 *Emergency Purchase Order.* The Project Director may reasonably determine that a Houston emergency purchase order is necessary for the continuation of the Expansion Project if (i) due to an emergency, (a) the Project Director reasonably determines that immediate Work is needed to prevent unanticipated damage to the property that comprises the Expansion Project (as opposed to property that comprises the existing NEWPP) and (b) the requirements for emergency purchase orders under State law and Houston's written manuals and procedures are met, and (ii) Appropriated Houston Funds do not have adequate contingency funds available to pay for the immediate Work. In that event, the Project Director shall provide the Representative, as soon as practicable, with written notice (i) including a copy of the emergency purchase order and a description of the emergency and damage to be prevented, and (ii) an estimate of the portion of funds from the emergency purchase order directly benefiting the Expansion Project and the Authority's pro-rata share, based on the Authority's applicable Cost Share, of such estimate. If the emergency purchase order is an Exempt Item or receives a Consensus Vote, then the Authority shall pay Houston its applicable Cost Share of the emergency purchase order within 60 days of receiving an invoice for same from Houston.

**ARTICLE VII**  
**NON-PAYMENT**

Section 7.1. *Non-Payment Default Generally.* The Project Director shall promptly provide written notice (such as email or other written notice) to all Project Parties of any Non-Payment Default by the Authority or Houston.

Section 7.2. *Authority's Non-Payment Default.* If it is the Authority that is in Non-Payment Default, then, beginning on the 16<sup>th</sup> and ending on the 45<sup>th</sup> day after the date the Authority receives written notice of the Authority's Non-Payment Default from the Project Director, Houston shall have the remedies set forth in this Section 7.2. If the Authority cures the Non-Payment Default prior to the 16<sup>th</sup> day described in the preceding sentence, then the remedies set forth in this Section 7.2 shall not apply.

- 7.2.1 Houston may assume some or all of the portion (in MGD) of the Expansion Project Reservation for which the Authority has not already provided Cash or provided and maintained Cash Equivalent ("Unpaid Reservation"). Any such assumption by Houston shall be accomplished by Houston providing written notice to all Project Parties that Houston has assumed all of the Authority's outstanding and future rights and obligations in and to the Unpaid Reservation. Thereafter, Houston may retain or sell all or a portion of the Unpaid Reservation;
- 7.2.2 Houston may modify the Expansion Project to reduce the capacity of the Expansion Project to eliminate some or all of the Unpaid Reservation. The additional Costs resulting therefrom that are incurred by the other Project Parties, including, without limitation, Engineering Costs for re-design Work, (collectively "Downsizing Costs") shall be due from the Authority, as described below. Any Project Party not then in Non-Payment Default may demand payment of the Downsizing Costs, which payment shall be made within 90 days thereafter by the Authority, pro-rata, to the other Project Parties;
- 7.2.3 Houston may assign some or all of the Unpaid Reservation to one or more of the Other Authorities in accordance with Section 3.2.2 if the one or more Other Authority(ies) to whom it is assigned agree, in writing, to the assignment; and
- 7.2.4 Houston may refuse any requests for Reservations from the Authority received by Houston prior to December 31, 2025.

Section 7.3. *Remaining Unpaid Reservation.* In the event some portion of Unpaid Reservation is remaining after Houston exercises its options pursuant to Section 7.2, or if the 45-day period described in Section 7.2 expires and any portion of the Unpaid Reservation is still remaining, then the Authority that is in Non-Payment Default shall be deemed to have assigned to the Project Parties that are not then in Non-Payment Default (and such Project Parties are deemed to have assumed), pro-rata, the outstanding and future rights and obligations in and to the Unpaid Reservation.

Section 7.4. *Houston's Non-Payment Default.* If it is Houston that is in Non-Payment Default, then the Authority shall have the remedies set forth in this Section 7.4, beginning on the 16<sup>th</sup> and ending on the 45<sup>th</sup> day after the earlier of: (i) the date the Authority receives written notice of Houston's Non-Payment Default from the Project Director, or (ii) the date Houston receives written notice of Houston's Non-Payment Default from the Authority. If the Authority provides notice to Houston pursuant to the preceding sentence, the Authority, contemporaneous with its sending such notice to Houston, shall provide a copy of same to the other Project Parties. If Houston cures the Non-Payment Default prior to the 16<sup>th</sup> day described in the first sentence of this paragraph, then the remedies set forth in this Section 7.4 shall not apply.

7.4.1 Pursuant to Section 7.4, the Authority and the Other Authorities (if they are not then in Non-Payment Default) may agree among themselves to assume all of the portion (in MGD) of Houston's capacity in the Expansion Project for which Houston has not already Appropriated Houston Funds ("Unpaid Capacity"). Any such assumption by the Authority and such Other Authorities shall be accomplished by the Authority and such Other Authorities providing written notice to all Project Parties that they have assumed all of Houston's outstanding and future rights and obligations in and to the Unpaid Capacity.

7.4.2 In the event the 45-day period described in this Section 7.4 expires and any portion of the Unpaid Capacity is still remaining, then Houston shall be deemed to have assigned to the Project Parties (other than Houston) that are not then in Non-Payment Default (and such Project Parties are deemed to have assumed), pro-rata, the outstanding and future rights and obligations in and to the Unpaid Capacity.

7.4.3 In the event of Houston's Non-Payment Default, Houston shall continue with its obligations under this Second Supplement to complete the Expansion Project.

Section 7.5. *Late Interest.* For the first 45 days following the date a Party enters into Non-Payment Default or following the date that a Party is delinquent in paying Downsizing Costs pursuant to Section 7.2.2, late interest shall accrue on the delinquent amount at an interest

rate equal to (i) one percent, plus (ii) the prime rate as published in the Wall Street Journal on the first business day of July of the preceding calendar year. Any Project Party not then in Non-Payment Default may demand payment of such late interest, which payment shall be made within 60 days thereafter by the Party in Non-Payment Default, pro-rata, to the other Project Parties. Thereafter, any interest shall accrue as may be required by law.

Section 7.6. *Preservation of Remedies.* Exercise of the options and remedies set forth in this Article VII does not waive any other remedies (including, without limitation, remedies for damages) that may be available at law or in equity against the Project Party that is in Non-Payment Default.

Section 7.7. *Modification of Time Periods.* The Project Director, the Authority, and the Other Authorities may collectively agree in writing to modify any of the time-periods set forth in this Article VII.

Section 7.8. *Agreement Not Required if in Non-Payment Default.* Certain provisions of this Second Supplement allow for revisions to this Second Supplement if the Project Director, the Authority, and the Other Authorities (or the Project Director and the Representatives) collectively agree in writing. In the event a Project Party is then in Non-Payment Default, agreement from such Project Party shall not be required for the other Project Parties to be able to revise the Second Supplement as described in the preceding sentence.

## ARTICLE VIII

### ACCOUNTING & FINAL STATEMENT

Section 8.1. *Payment for Work.* As the Project Director receives invoices for the Work and Acquisition Costs, the Project Director shall review and approve or disapprove such invoices and shall pay for same as provided herein. The Project Director shall post this payment information and the other documents described in this Article to the Work Management System.

Section 8.2. *Annual Financial Report.* Each year until the Final Accounting and by no later than October 1 of each year, the Project Director shall post to the Work Management System an interim, unaudited financial report ("Annual Financial Report") of the (i) funds credited to and debited from the Escrow Account, (ii) sources and uses of funds credited to and debited from (and the dates of such credits and debits) the Authority Fund, (iii) the amount(s) of funds paid (and date(s) paid) by Houston out of the Appropriation of Houston Funds, (iv) earnings and interest accrued in the Authority Fund for the benefit of the Authority and Other Authorities, (v) the Cost Recovery Amounts and calculation thereof, and (vi) for the initial Annual Financial Report, the Costs incurred by Houston prior to December 1, 2014, in accordance with



Section 3.4. The reporting period for Annual Financial Reports shall include all transactions from July 1 of the previous calendar year through June 30 of the current year.

Section 8.3. *Phase Financial Report.* Within 90 days of completion of the Work for any Phase, the Multi-Phase Work, or the Oversized Facilities, the Project Director shall post to the Work Management System a final, unaudited financial report of all Costs for that Phase, Multi-Phase Work, or Oversized Facilities ("Phase Financial Report"). The Phase Financial Report shall provide the same type of information and formatting as the Annual Financial Report and shall identify the remaining Cash and Cash Equivalent in the Escrow Account and the Cash in the Authority Fund and anticipated refunds and shortfalls, based upon the most-current Budget and Participation Table.

Section 8.4. *Semi-Annual Cost Recovery Amounts Report.* Semi-Annually, Houston shall provide to the Authority a report showing all Cost Recovery Amounts Houston charged to the Expansion Project during the period from January 1<sup>st</sup> to June 30<sup>th</sup> and from July 1<sup>st</sup> to December 31<sup>st</sup> of each year. Reports for the period ending December 31<sup>st</sup> shall be due by the following February 28<sup>th</sup> and reports for the period ending on June 30<sup>th</sup> shall be due by August 31<sup>st</sup>. Notwithstanding the foregoing, the first report shall cover the period from December 1, 2014 to June 30, 2015 and be due by August 31, 2015.

Each report shall include for the applicable period: (i) for each Direct Employee recording hours worked on the Expansion Project (a) the total cost to Houston for the employee's salary and associated benefits, expressed as an annual amount and as an hourly rate, (b) the total hours worked, and (c) the totals hours worked on the Expansion Project; (ii) the total of all amounts determined pursuant to (i); (iii) the total costs of salaries and associated benefits for all Direct Employees, whether each employee recorded hours worked on the Expansion Project or not; (iv) the Overhead Factor; (v) an itemized list and backup for all costs included as Overhead; (vi) the total Cost Recovery Amount.

Section 8.5. *Review and Comment.* The Representative shall have the opportunity to review and comment on Annual Financial Reports, Phase Financial Reports, Final Accounting, and the True-Up Statement within 30 days of the later of: (i) the date the applicable document is posted to the Work Management System, or (ii) the date an email (or other written notice) is received by the Representative from the Project Director notifying the Representative that the applicable document has been posted to the Work Management System. The Project Director shall address any of the Representative's comments within 30 days of receiving the comment(s). The Project Director and Representative may agree in writing to a longer period for comments and to address such comments.

Section 8.6. *Agreed Upon Procedures.* No later than the first anniversary of the Second Supplement Effective Date, Project Parties that collectively comprise more than 63% of the

Multi-Phase Cost Shares, as provided in the Participation Table, shall agree on standard procedures and questions for AUP Reports. The cost incurred by Houston to obtain each AUP Report shall be considered a Work Item shared by the Project Parties according to their respective Cost Shares for Multi-Phase Work.

- 8.6.1 Within 90 days after the end of the time-period for the Representative to provide comments to a Phase Financial Report under Section 8.5, the Project Director shall cause an AUP Report to be prepared and posted on the Work Management System ("Phase AUP Report"). A Phase AUP Report shall review, test, and verify the associated Phase Financial Report.
- 8.6.2 The Representative shall have the opportunity to review the Phase AUP Report and provide comments to the Project Director for 30 days following the later of: (i) the date the Phase AUP is posted to the Work Management System, or (ii) the date an email (or other written notice) is received by the Representative from the Project Director notifying the Representative that the Phase AUP has been posted to the Work Management System. The Project Director shall consider and respond to said comments and may provide an addendum to the Phase AUP Report.

Section 8.7. *Final Accounting.* The last Phase AUP Report shall include a final accounting for all Phases, Multi-Phase Work, and Oversized Facilities ("Final Accounting") that includes: (a) a list of all Costs paid from the Authority Fund and from Appropriations of Houston Funds; (b) the cumulative amount of Cash withdrawn by Houston from the Escrow Account and from escrow accounts created under the Other Second Supplements; (c) the earnings and interest earned on the Authority's funds and the Other Authorities' funds in the Authority Fund; (d) the amount of funds, if any, remaining in the Authority Fund after all Costs have been paid; (e) the Authority's and the Other Authorities' pro-rata share shown as a percentage and dollar amount, based on the applicable Cost Share, of any remaining funds described in (d) above; (f) the amount of funds, if any, the Authority owes for the Work, Cost Recovery Amounts, and Acquisition Costs based on its applicable Cost Share that was not already paid by the Authority pursuant to this Second Supplement; and (g) the Costs incurred by Houston prior to December 1, 2014, in accordance with Section 3.4. In accordance with this Second Supplement, the Final Accounting shall state for each Project Party the amounts, if any, due or owing to or from such Project Party for the items calculated using items (a) through (g) above. The Final Accounting shall also include (i) the Oversizing Costs based on the Final Oversized Price and the Final Non-Oversized Price of each applicable Work Item pursuant to Section 3.14 and (ii) the items listed in the third paragraph of Section 3.15.1.



Section 8.8. *True-Up.* Consistent with the Final Accounting, and within 60 days after the Final Accounting has been posted to the Work Management System, the Project Director shall prepare a True-Up Statement (the "True-Up Statement") reflecting the amount, if any, due to or owed from the Authority pursuant to this Second Supplement, and shall post same on the Work Management System. After the comment period provided for in Section 8.5, the Project Director shall issue the Authority the True-Up Statement, including any revisions made by the Project Director based on comments received. If the True-Up Statement provides that the Authority owes Houston a payment, the Authority shall pay any such amount to Houston within 180 days of the date the True-Up Statement is received by the Authority and the Authority shall be in default if it fails to do so. If the True-Up Statement provides that Houston owes the Authority a payment, Houston shall pay any such amount to the Authority within 90 days of the date the True-Up Statement is issued and Houston shall be in default if it fails to do so. Nothing in this Section prohibits a Party from challenging the calculation of the Annual Financial Reports, Phase Financial Reports, Final Accounting, or the True-Up Statement, as not being in compliance with this Second Supplement.

## ARTICLE IX

### TERM

Section 9.1 *Term.* Section 15 of the First Supplement is amended to read as follows:

"The Contract and the Second Supplement shall expire at noon on January 1, 2080. At such time as the Contract and the Second Supplement are no longer in force and effect, if requested in writing by the Authority, Houston agrees to continue to provide water services to the Authority upon the payment of reasonable rates and charges therefor which take into account the capital payments paid by the Authority to Houston pursuant to the Contract (and any supplements, including the Second Supplement, or amendments thereto) and the Authority's equitable interest described below. Upon the date that the Contract and the Second Supplement are no longer in force and effect, the Authority will own the right to use the capacity of the Untreated Water Facilities and Treated Water Facilities proportionate to the amount of its Water Demand Allocation as it existed immediately prior to such date. The immediately preceding two (2) sentences shall survive the expiration or termination of the Contract and the Second Supplement."

The term "Contract" in the above paragraph, and throughout this Second Supplement, has the meaning given in Section 2.19 of this Second Supplement.

**ARTICLE X**  
**MISCELLANEOUS**

Section 10.1 *Time; Force Majeure.* Time is of the essence with respect to performance of all obligations set forth in this Second Supplement. The Force Majeure provisions of the Original Contract apply to this Second Supplement; provided, however, Force Majeure does not excuse a failure to timely satisfy Cash Call obligations.

Section 10.2 *Severability.* If any part of this Second Supplement is for any reason found to be unenforceable, all other parts remain enforceable.

Section 10.3 *Recitals.* The recitals contained in Article I are true and correct, accurately represent the understandings and intent of the parties, and are incorporated into this Second Supplement by reference.

Section 10.4 *Written Amendment.* Unless otherwise specified elsewhere in this Second Supplement, this Second Supplement may be amended only by written instrument executed by the governing bodies of Houston and the Authority and, if the amendment is to a provision in Article III through VIII, then the written consent of all Project Parties shall be required.

Section 10.5 *Applicable Laws.* This Second Supplement is subject to the laws of the State of Texas, the Houston's Charter and Ordinances (to the extent the Ordinances are not inconsistent with this Second Supplement), the laws of the federal government of the United States, and all rules and regulations of any regulatory body or officer having jurisdiction. Venue for any litigation relating to this Second Supplement is Harris County, Texas.

Section 10.6 *Notices.* All notices required or permitted by this Second Supplement must be in writing and are deemed delivered on the earlier of the date actually received or the third day following: (a) deposit in a United State Postal Service post office or receptacle; (b) with proper postage (certified mail, return receipt requested); and (c) addressed to the other party at the address provided in the Original Contract.

Section 10.7 *Captions.* Captions contained in this Second Supplement are for reference only, and therefore, have no effect in construing this Second Supplement. The captions are not restrictive of the subject matter of any section in this Second Supplement.

Section 10.8 *Non-Waiver.* If any Party fails to require another Party to perform a term of this Second Supplement, that failure does not prevent the Party from later enforcing that term and all other terms. If any Party waives another Party's breach of a term, that waiver does not waive a later breach of this Second Supplement.

Section 10.9 *Enforcement*. The City Attorney, or his or her designee, may enforce all of Houston's legal rights and obligations under this Second Supplement without further authorization.

Section 10.10 *Ambiguities*. If any term of this Second Supplement is ambiguous, it shall not be construed for or against any Party on the basis that the Party did or did not write it.

Section 10.11 *Remedies Cumulative*. Unless otherwise specified elsewhere in this Second Supplement, the rights and remedies contained in this Second Supplement are not exclusive, but are cumulative of all rights and remedies that exist now or in the future at law or in equity (including, without limitation, specific performance, mandamus, and injunctive relief). No Party may terminate its duties under this Second Supplement except as may be specifically provided for in this Second Supplement.

Section 10.12 *Third Party Beneficiaries*. The terms of this Second Supplement will be binding upon, and inure to the benefit of, the Parties hereto and their permitted successors and assigns. The Parties hereby expressly acknowledge and stipulate their intent that each of the Project Parties not included within the definition of the Parties shall be a third party beneficiary of this Second Supplement, and shall have the right and legal standing to enforce the respective obligations of the Parties hereunder to the full extent allowed at law or in equity; provided, however, that in no event shall the Project Parties have the right to bring suit for money damages against any Party to this Second Supplement in any case or cause of action in which a direct Party to this Second Supplement would have no right to bring suit for money damages under the terms of this Second Supplement. Except as described in the preceding sentence, this Second Supplement shall be for the sole and exclusive benefit of the Parties and shall not be construed to confer any rights upon any third party.

Section 10.13 *Waiver of Immunity*. The Project Parties expressly acknowledge and agree that this Second Supplement constitutes a contract by which each Project Party is providing goods and/or services to all other Project Parties and that this Second Supplement is subject to the provisions of Subchapter I, Chapter 271, of the Texas Local Government Code.

Section 10.14 *Reserved*.

Section 10.15 *Assignability*. Unless otherwise specified elsewhere in this Second Supplement, this Second Supplement shall not be assignable by either Party without the prior written consent of the other Project Parties.

Section 10.16 *Additional Information*. The provisions of this Section shall terminate 180 days after the Authority receives a True-Up Statement calculated pursuant to Section 8.8. The

Authority shall provide the Project Director with the following documents no later than the time the Authority submits such documents to the Municipal Securities Rulemaking Board ("MSRB") via the Electronic Municipal Market Access system established by the MSRB: (i) the Authority's annual audited financial statements, and (ii) notice of these specified events with respect to outstanding Authority bonds:

- A. Principal and interest payment delinquencies;
- B. Non-payment related defaults, if Material;
- C. Unscheduled draws on debt service reserves reflecting financial difficulties;
- D. Unscheduled draws on credit enhancements reflecting financial difficulties;
- E. Substitution of credit or liquidity providers, or their failure to perform;
- F. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax-exempt status of the Authority's outstanding bonds, or other Material events affecting the tax-exempt status of the Authority's outstanding bonds;
- G. Modifications to rights of holders of the Authority's outstanding bonds, if Material;
- H. Release, substitution, or sale of property securing repayment of the Authority's outstanding bonds, if Material;
- I. Rating downgrades (other than bond insurance company rating downgrades);
- J. Bankruptcy, insolvency, receivership or similar event of the Authority or other obligated person within the meaning of the United States Securities and Exchange Commission Rule 15c2-12, as amended from time to time (the "Rule"); and
- K. Consummation of a merger, consolidation, or acquisition involving the Authority or other obligated person within the meaning of the Rule, or the sale of all or substantially all of the assets of the Authority or other obligated person within the meaning of the Rule, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if Material.

Upon discovery of an event of default under any agreement by which the Authority obtained a line of credit or letter of credit (if any) as Cash Equivalent under this Second Supplement, the Authority shall deliver to the Project Parties (via the Work Management System or other means of delivery) a certificate specifying the nature of such event of default, the period of existence of such default, and the action that the Authority has taken and will take to remedy such default.

## ARTICLE XI

### *EFFECT ON AND AMENDMENTS TO THE ORIGINAL CONTRACT*

Section 11.1 *Entire Agreement.* This Second Supplement merges the prior negotiations and understandings of the Parties and embodies the entire agreement of the Parties in relation to the Expansion Project, the Work, the Costs, the Expansion Project Reservation, and the Oversized Facilities Option. No other agreements, assurances, conditions, covenants (express or implied), or other terms of any kind, exist between the Parties regarding the Expansion Project, the Work, the Costs, the Expansion Project Reservation, and the Oversized Facilities Option contemplated in this Second Supplement.

Section 11.2 *Authority's Payment of O&M Expenses; Amendments to Original Contract.*

11.2.1 The term "Plant Facilities" is currently defined in the Contract as the facilities identified in Exhibit "B" attached thereto and such exhibit describes the Northeast Water Purification Plant as it exists prior to the Second Supplement Effective Date. For all purposes under the Contract, after the Authority begins receiving Water from the Expansion Project, the term "Plant Facilities" shall be expanded to also include the Expansion Project.

11.2.2 For purposes of calculating the O&M Expenses for the Authority (except for purposes of item "F", which is provided for in Section 11.2.3 below), the parties agree to treat the portion of the Plant Facilities existing on the Second Supplement Effective Date and the portion of the Plant Facilities constructed as part of the Expansion Project as a single water plant. As a result, after the Authority begins receiving water out of the Expansion Project, the calculation stated in Section 4.02 of the Original Contract for calculating the Authority's O&M Expenses shall be amended by (i) adding ". less the amount (in millions of gallons) of Water taken from the Plant Facilities during such year by the West Harris County Regional Water Authority and the North Fort Bend Water Authority, combined. The amounts taken from the Plant Facilities by the other aforementioned water authorities shall be determined by the amount of Water measured by the measuring equipment pursuant to Article VII of their respective Water Supply Contracts with Houston." to the end of the current description of "B;" and (ii) adding ". less the amount of all such costs and expenses paid by the West Harris County Regional Water Authority and the North Fort Bend Water Authority, combined." to the end of the first sentence of the description of "C."

11.2.3 In addition, the second sentence of item "F" is amended to read as follows: "As used in this definition, the ratio for determining the share of the cost borne by the

Authority is a fraction, the numerator of which is the Authority's then-current Treated Water Facilities Demand Allocation in the applicable facility and the denominator of which is the total capacity (in MGD) of the entire applicable facility subject to the Major Rehabilitation, repair or replacement. For purposes of this calculation, the Plant Facilities, existing at the expansion date of this Second Supplement) and the Expansion Project shall be treated as two separate facilities after the Authority begins receiving water out of the Expansion Project.”

Section 11.3 *Reserved.*

Section 11.4 *Conflicts.* This Second Supplement shall control over the Contract with respect to the matters addressed in this Second Supplement, including, without limitation: (i) the Expansion Project and all payments from the Authority related to the same, (ii) the Phase 1 Expansion Project Reservation, Phase 2 Expansion Project Reservation, Oversized Facilities Option, and all payments related to the same, and (iii) calculation of O&M Expenses with respect to the Expansion Project. Except to the extent inconsistent with this Second Supplement, all terms of the Contract remain in full force and effect.

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ARTICLE XII  
SIGNATURES

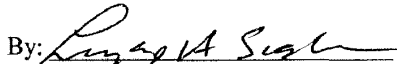
IN WITNESS WHEREOF, Participants have executed this Second Supplement in multiple copies, each of which shall be deemed to be an original, as of the date of countersignature by the City Controller of Houston.

NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

By:   
Alan J. Rendk, President

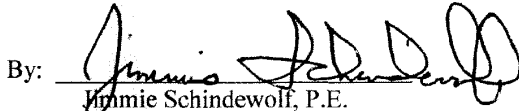
ATTEST:

DATE APPROVED:


By:   
Lenox A. Sigler, Secretary

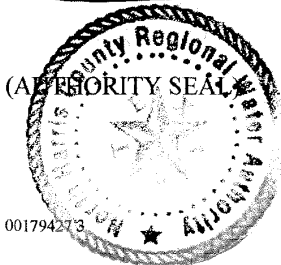
02-12-15

APPROVED:

By:   
Jimmie Schindewolf, P.E.  
General Manager

APPROVE AS TO FORM:

By:   
Robin S. Bobbitt  
General Counsel



CITY OF HOUSTON, TEXAS

Annise D. Parker  
Annise D. Parker  
Mayor

ATTEST/SEAL:

Anna Russell  
Anna Russell  
City Secretary

DATE COUNTERSIGNED:

2-25-15  
("Second Supplement Effective Date")

APPROVED:

Dale A. Rudek  
III Director, Public Works & Energy  
Department

APPROVED AS TO FORM:

L.D. Gbell  
Assistant City Attorney  
L.D. File No. \_\_\_\_\_

COUNTERSIGNED BY:

Ronald C. Green  
Ronald C. Green  
City Controller



**EXHIBIT "A"**  
**PARTICIPATION TABLE**

00179427 3

Exhibit A: Participation Table

	NEWPP Expansion Project Reservation in Million Gallons per Day (MGD)		
	Total	Phase 1	Phase 2
NHCRWA	113.00	51.05	61.95
CHCRWA	4.88	0.46	4.42
NFBWA	68.50	11.46	57.04
WHCRWA	82.42	17.03	65.39
COH*	51.20	0.00	51.20
TOTAL	320.00	80.00	240.00

	NEWPP Expansion Project – Cost Share		
	Multi-Phase (%)	Phase 1 (%)	Phase 2 (%)
NHCRWA	35.313%	63.813%	25.813%
CHCRWA	1.525%	0.575%	1.842%
NFBWA	21.406%	14.325%	23.767%
WHCRWA	25.756%	21.288%	27.246%
COH	16.000%	0.000%	21.333%
TOTAL	100.00%	100.000%	100.000%

\* Represents Houston's additional capacity in the Expansion Project, as Houston does not have an Expansion Project Reservation.

\*\* Exhibit A shall be updated to reflect that the Over-Sized Facilities Design Capacity is \_\_\_ MGD, to be determined in accordance with Section 3.14 of the Second Supplement.

**EXHIBIT "B"**  
**BUDGET**

00179427 3

CITY OF HOUSTON - Department of Public Works and Engineering - Combined Utility System

NEWPP EXPANSION ONLY ESTIMATED PROJECT COST

ESTIMATED PROJECT COST ALLOCATED TO PARTICIPANTS \*

COH ESTIMATED APPROPRIATION DATES

EXHIBIT B

COH Fiscal Year (FY): July 1 - June 30

NOTE: TOTAL PROJECT COST DOES NOT BREAK OUT POSSIBLE PROJECT OVERSIZING DOLLAR AMOUNTS

Project Mgmt., Planning, Administration, Management, & Legal	Before											TOTAL	
	FY2015	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024		FY2025
Percent Participation													
<b>Project Mgmt., Planning, Administration, Management, &amp; Legal</b>													
NHCRWA 35.313%	\$ 2,703,898	\$ 6,100,000	\$ 9,342,000	\$ 12,456,000	\$ 7,786,000	\$ 10,370,000	\$ 10,321,000	\$ 10,321,000	\$ 10,321,000	\$ 14,681,000	\$ 10,321,000	\$ 7,785,000	\$ 112,457,898
CHCRWA 1.525%	954,814	2,154,063	3,298,894	4,398,525	2,749,431	3,644,250	3,644,603	3,644,603	3,644,603	5,184,228	3,644,603	2,749,078	36,711,695
NFRWA 21.406%	41,234	93,025	142,466	189,954	118,737	157,380	157,395	157,395	157,395	223,885	157,395	118,721	1,714,983
WHCRWA 25.756%	578,803	1,305,781	1,999,772	2,666,363	1,666,691	2,209,125	2,209,339	2,209,339	2,209,339	3,143,652	2,209,339	1,666,477	24,073,019
COH 16.000%	432,624	976,000	1,494,720	1,992,960	1,245,760	1,651,200	1,651,360	1,651,360	1,651,360	2,348,960	1,651,360	1,245,600	28,964,957
<b>Engineering, Design, GMPs, &amp; Construction Services</b>													
NHCRWA 35.313%	\$ -	\$ -	\$ 960,000	\$ 90,667,000	\$ 24,038,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 115,665,000
CHCRWA 1.525%	-	-	339,000	32,016,784	8,488,419	-	-	-	-	-	-	-	40,844,203
NFRWA 21.406%	-	-	14,640	1,382,672	366,580	-	-	-	-	-	-	-	1,765,891
WHCRWA 25.756%	-	-	205,500	19,408,405	5,145,634	-	-	-	-	-	-	-	24,759,539
COH 16.000%	-	-	247,260	23,352,419	6,191,287	-	-	-	-	-	-	-	29,790,967
<b>Construction Water supply intake &amp; piping, plumbing, mechanical &amp; electrical</b>													
NHCRWA 35.313%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 107,664,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 107,664,000
CHCRWA 1.525%	-	-	-	-	-	38,018,850	-	-	-	-	-	-	38,018,850
NFRWA 21.406%	-	-	-	-	-	1,641,876	-	-	-	-	-	-	1,641,876
WHCRWA 25.756%	-	-	-	-	-	23,046,825	-	-	-	-	-	-	23,046,825
COH 16.000%	-	-	-	-	-	27,730,209	-	-	-	-	-	-	27,730,209
<b>Construction Electrical Substation Improvements (Electrical Supply)</b>													
NHCRWA 35.313%	\$ -	\$ -	\$ -	\$ -	\$ 56,740,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 56,740,000
CHCRWA 1.525%	-	-	-	-	20,036,313	-	-	-	-	-	-	-	20,036,313
NFRWA 21.406%	-	-	-	-	865,285	-	-	-	-	-	-	-	865,285
WHCRWA 25.756%	-	-	-	-	12,145,906	-	-	-	-	-	-	-	12,145,906
COH 16.000%	-	-	-	-	14,614,096	-	-	-	-	-	-	-	14,614,096
					9,078,400								9,078,400

Demand Allocation for Project

CITY OF HOUSTON - Department of Public Works and Engineering - Combined Utility System

NEWPP EXPANSION ONLY ESTIMATED PROJECT COST

ESTIMATED PROJECT COST ALLOCATED TO PARTICIPANTS \*

COH ESTIMATED APPROPRIATION DATES

EXHIBIT B

COH Fiscal Year (FY): July 1 - June 30

NOTE: TOTAL PROJECT COST DOES NOT BREAK OUT POSSIBLE PROJECT OVERSIZING DOLLAR AMOUNTS

Construction WTP First	Construction WTP Second	Phase I	Phase II	Total Combined
DELIVERY (Module 1 - Initial 80 MGD)	DELIVERY (Modules 2, 3 & 4 240 MGD)			
NHCRWA 63.813%	NHCRWA 25.813%	\$ -	\$ -	\$ -
CHCRWA 0.575%	CHCRWA 1.842%	\$ -	\$ -	\$ -
NFRWA 14.323%	NFRWA 23.767%	\$ -	\$ -	\$ -
WHCRWA 21.288%	WHCRWA 27.246%	\$ -	\$ -	\$ -
COH 0.000%	COH 21.333%	\$ -	\$ -	\$ -
		\$ 266,192,000	\$ 621,121,000	\$ 887,313,000
		\$ 169,863,770	\$ 160,326,858	\$ 330,190,628
		\$ 1,530,604	\$ 11,438,978	\$ 12,969,582
		\$ 38,132,004	\$ 147,619,758	\$ 185,751,762
		\$ 56,665,622	\$ 169,229,592	\$ 225,895,214
			\$ 132,505,813	\$ 132,505,813
			\$ 799,105,000	\$ 799,105,000
		\$ 6,100,000	\$ 103,123,000	\$ 109,223,000
		\$ 10,302,000	\$ 799,105,000	\$ 809,407,000
		\$ 103,123,000	\$ 10,321,000	\$ 113,444,000
		\$ 354,756,000	\$ 10,321,000	\$ 365,077,000
Total 100.000%		\$ 2,703,898	\$ 10,302,000	\$ 13,005,898
		\$ 6,100,000	\$ 103,123,000	\$ 109,223,000
		\$ 10,302,000	\$ 799,105,000	\$ 809,407,000
		\$ 103,123,000	\$ 10,321,000	\$ 113,444,000
		\$ 354,756,000	\$ 10,321,000	\$ 365,077,000
Total Contributions for NEWPP Expansion		\$ 2,703,898	\$ 10,302,000	\$ 13,005,898
NHCRWA:		954,814	36,415,309	37,370,123
CHCRWA:		41,234	1,572,626	1,613,860
NFRWA:		578,803	22,074,767	22,653,570
WHCRWA:		696,423	26,560,618	27,257,041
COH:		432,624	16,499,680	16,932,304
		\$ 2,703,898	\$ 103,123,000	\$ 105,826,898
		\$ 6,100,000	\$ 103,123,000	\$ 109,223,000
		\$ 10,302,000	\$ 799,105,000	\$ 809,407,000
		\$ 103,123,000	\$ 10,321,000	\$ 113,444,000
		\$ 354,756,000	\$ 10,321,000	\$ 365,077,000
Total Contributions for NEWPP Expansion		\$ 2,703,898	\$ 10,302,000	\$ 13,005,898
NHCRWA:		954,814	36,415,309	37,370,123
CHCRWA:		41,234	1,572,626	1,613,860
NFRWA:		578,803	22,074,767	22,653,570
WHCRWA:		696,423	26,560,618	27,257,041
COH:		432,624	16,499,680	16,932,304
		\$ 2,703,898	\$ 103,123,000	\$ 105,826,898
		\$ 6,100,000	\$ 103,123,000	\$ 109,223,000
		\$ 10,302,000	\$ 799,105,000	\$ 809,407,000
		\$ 103,123,000	\$ 10,321,000	\$ 113,444,000
		\$ 354,756,000	\$ 10,321,000	\$ 365,077,000

\* The allocation of the estimated costs to the Project Parties as reflected herein are for illustration only. The terms of the Second Supplement and not the Exhibit B shall control the allocation of costs among the Project Parties.

**EXHIBIT "C"**  
**SCHEDULE**

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**NEWPP EXPANSION PROJECT  
BASELINE SCHEDULE  
DRAFT VERSION 1.1A**

ID	Task Name	Start	Finish	Duration	Calendar	Predecessor
1	Finalizing	Mon 10/11/15	Tue 10/11/15	223 days	0	
2	RFO RFP Development NTP	Fri 10/15/15	0 days	0		
3	Pricing & Permitting NTP	Wed 12/15/15	0 days	0		
4	Staffing & Contract Development	Wed 10/11/14	Tue 3/17/15	152 days	166	
5	Solicitation Process & Documents Development	Fri 10/15/15	0 days	0		
6	Bidding Documents (Contract Package)	Fri 10/15/15	0 days	0		
7	Water Supply Contract Signed	Mon 3/21/15	Fri 3/27/15	66 days	82	
8	Contract RFA & Delivery Method Authorization	Mon 3/21/15	Fri 3/27/15	66 days	82	
9	RFO Process	Mon 3/21/15	Fri 3/27/15	66 days	82	
10	RFP Process	Mon 3/21/15	Fri 3/27/15	66 days	82	
11	Contract Award	Mon 3/21/15	Fri 3/27/15	66 days	82	
12	Contract RFA & Contract Authorization	Mon 3/21/15	Fri 3/27/15	66 days	82	
13	Notes to Proceed	Mon 3/21/15	Fri 3/27/15	66 days	82	
14	Planning & Treatment Finalization	Mon 3/21/15	Fri 3/27/15	66 days	82	
15	Planning & Initial Development Phase	Mon 3/21/15	Fri 3/27/15	66 days	82	
16	Validation Phase	Mon 3/21/15	Fri 3/27/15	66 days	82	
17	Environmental Permitting	Mon 3/21/15	Fri 3/27/15	66 days	82	
18	Surveys, studies, all de w/02, prepare permit	Mon 3/21/15	Fri 3/27/15	66 days	82	
19	Submit Permit	Mon 3/21/15	Fri 3/27/15	66 days	82	
20	404/Environmental Permitting	Mon 3/21/15	Fri 3/27/15	66 days	82	
21	Obtain Permit	Mon 3/21/15	Fri 3/27/15	66 days	82	
22	Design (Preconstruction)	Mon 3/21/15	Fri 3/27/15	66 days	82	
23	Treatment Confirmation/Issues of Design	Mon 3/21/15	Fri 3/27/15	66 days	82	
24	Raw Water Intakes & Pumping	Mon 3/21/15	Fri 3/27/15	66 days	82	
25	WTP Site Prep/Stormwater	Mon 3/21/15	Fri 3/27/15	66 days	82	
26	WTP Module 1 Structure (80 MGD)	Mon 3/21/15	Fri 3/27/15	66 days	82	
27	WTP Balance of Overall Facilities (240 MGD)	Mon 3/21/15	Fri 3/27/15	66 days	82	
28	WTP Operations Bldg	Mon 3/21/15	Fri 3/27/15	66 days	82	
29	Electrical Substation & Supply	Mon 3/21/15	Fri 3/27/15	66 days	82	
30	Raw Water Intakes & Pumping	Mon 3/21/15	Fri 3/27/15	66 days	82	
31	Raw Water Conveyance	Mon 3/21/15	Fri 3/27/15	66 days	82	
32	Raw Water Treatment (80 MGD)	Mon 3/21/15	Fri 3/27/15	66 days	82	
33	WTP Balance of Overall Facilities (80 MGD) (Ops Bldg)	Mon 3/21/15	Fri 3/27/15	66 days	82	
34	WTP Balance of Overall Facilities (240 MGD)	Mon 3/21/15	Fri 3/27/15	66 days	82	
35	Construction	Mon 3/21/15	Fri 3/27/15	66 days	82	
36	Raw Water Intakes & Pumping	Mon 3/21/15	Fri 3/27/15	66 days	82	
37	Raw Water Conveyance	Mon 3/21/15	Fri 3/27/15	66 days	82	
38	WTP Module 1 Structure (80 MGD)	Mon 3/21/15	Fri 3/27/15	66 days	82	
39	WTP Balance of Overall Facilities (80 MGD)	Mon 3/21/15	Fri 3/27/15	66 days <td>82</td> <td></td>	82	
40	WTP Balance of Overall Facilities (240 MGD)	Mon 3/21/15	Fri 3/27/15	66 days	82	
41	WTP Operations Bldg	Mon 3/21/15	Fri 3/27/15	66 days	82	
42	Electrical Substation & Supply	Mon 3/21/15	Fri 3/27/15	66 days	82	
43	Construction	Mon 3/21/15	Fri 3/27/15	66 days	82	
44	Raw Water Intakes & Pumping	Mon 3/21/15	Fri 3/27/15	66 days	82	
45	Raw Water Conveyance	Mon 3/21/15	Fri 3/27/15	66 days	82	
46	WTP Module 1 Structure (80 MGD)	Mon 3/21/15	Fri 3/27/15	66 days	82	
47	WTP Balance of Overall Facilities (80 MGD)	Mon 3/21/15	Fri 3/27/15	66 days	82	
48	WTP Balance of Overall Facilities (240 MGD)	Mon 3/21/15	Fri 3/27/15	66 days	82	
49	WTP Operations Bldg	Mon 3/21/15	Fri 3/27/15	66 days	82	
50	Electrical Substation & Supply	Mon 3/21/15	Fri 3/27/15	66 days	82	
51	Construction	Mon 3/21/15	Fri 3/27/15	66 days	82	
52	Initial Operational Completion	Mon 3/21/15	Fri 3/27/15	66 days	82	
53	Substantial Completion - 80 MGD Capacity On-Line	Mon 3/21/15	Fri 3/27/15	66 days	82	
54	Final Completion - RW & Module 1	Mon 3/21/15	Fri 3/27/15	66 days	82	
55	Substantial Completion - Balance of Facilities On-Line	Mon 3/21/15	Fri 3/27/15	66 days	82	
56	Final Completion - Balance of Facilities	Mon 3/21/15	Fri 3/27/15	66 days	82	
57	Final Completion - 320 MGD Expansion	Mon 3/21/15	Fri 3/27/15	66 days	82	

NOTE: Schedule based on a progressive design-build approach using 5 day work weeks.

**EXHIBIT "D"**  
**ESCROW AGREEMENT**

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## ESCROW & PAY AGENT AGREEMENT

This Escrow & Pay Agent Agreement (the "Escrow Agreement") is entered into as of \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_ Water Authority, a conservation and reclamation district organized and operating under the provisions of \_\_\_\_\_ (the "Authority"), \_\_\_\_\_ (the "Escrow Agent"), and \_\_\_\_\_, as beneficiary under this Escrow Agreement, the City of Houston ("Houston").

The Authority entered into that certain Second Supplement to Water Supply Contract (the "Second Supplement"), effective as of \_\_\_\_\_.

The Second Supplement, attached as **Exhibit A**, contains provisions regarding the Authority's and Houston's respective responsibilities and obligations related to the funding of the design and construction of the Expansion Project, which involves the expansion of the Northeast Water Purification Plant located at 12121 North Sam Houston Parkway East, Humble, Texas 77396 (the "NEWPP").

Pursuant to the Second Supplement and this Escrow Agreement, the Authority shall deposit into the Escrow Account (as defined below) Cash or Cash Equivalent (as defined in the Second Supplement), representing the Authority's pro-rata share of a portion of the costs of the Expansion Project.

Pursuant to the terms of this Escrow Agreement, the Escrow Agent has agreed to hold such Cash or Cash Equivalent in a separately segregated trust account ("Escrow Account") and disburse funds from the Escrow Account, as set forth this Escrow Agreement.

Pursuant to, and subject to the terms and conditions of, the Second Supplement and this Escrow Agreement, Houston shall draw funds from the Escrow Account to be used to pay for the Authority's pro-rata share of a portion of the costs of the Expansion Project; Now, Therefore,

FOR AND IN CONSIDERATION OF THE PREMISES AND THE MUTUAL COVENANTS AND AGREEMENTS HEREIN CONTAINED, the Authority, Houston, and Escrow Agent do mutually agree as follows:

Section 1: The recitals above are true and correct and are incorporated into this Escrow Agreement by reference. All capitalized terms used in this Escrow Agreement not otherwise defined herein shall have the meanings assigned to such terms in the Second Supplement.

Section 2: The Parties hereby appoint Escrow Agent to serve as Escrow Agent as set forth herein, and the Escrow Agent hereby accepts and agrees to perform its obligations hereunder.

Section 3: Pursuant to the Second Supplement, and for each Cash Call issued to the Authority by Houston, the Authority shall deposit Cash into the Escrow Account from time to time in the amounts, and within the time-periods, required by the Second Supplement. The Escrow Agent shall separately account for the Cash deposited by the Authority for each of the

Cash Calls. Notwithstanding the other provisions of this paragraph, pursuant to the Second Supplement, in lieu of Cash, the Authority may provide the Escrow Agent with Cash Equivalent(s) that satisfy individual or multiple Cash Calls. Each Cash Equivalent will be payable to the Escrow Agent for the benefit of the Escrow Account. The Authority may at any time replace Cash Equivalent with Cash. Each time the Authority provides Cash or Cash Equivalent to the Escrow Agent, the Authority shall provide a written notice to the Escrow Agent (with a contemporaneous copy to all Project Parties) that identifies the particular Cash Call to which the Cash or Cash Equivalent applies.

Section 4: The Cash and Cash Equivalent provided by the Authority hereunder to the Escrow Agent are owned by the Authority. Subject to the terms of this Escrow Agreement, and once Houston's City Controller has certified in writing to the Escrow Agent that the Cash or Cash Equivalent has been appropriated by Houston's City Council for a Cash Call, such Cash and Cash Equivalent shall be held by the Escrow Agent until the Termination Date (defined below). The Project Director shall from time to time submit to the Escrow Agent Withdrawal Request and Certificates, substantially in the form attached hereto as **Exhibit B**, which describe the Project Director's request for funds, identify from which Cash Call funds are being withdrawn, and certify the following: (i) that the request for funds is solely to pay for the Authority's pro-rata share of Costs, based on the Authority's applicable Cost Share, funded by the Cash Call that the Project Director has identified in the Withdrawal Request and Certificate; (ii) that, for Costs that are for Engineering Costs or Construction Costs, the Project Director has reasonably determined that a certain amount of funds are needed to pay for such Costs and that such Costs are reasonably estimated by the Project Director to be due from Houston to pay Consultants or the Contractor within 90 calendar days after the date the Project Director signs the Withdrawal Request and Certificate, and (iii) that, for Costs that are for Cost Recovery Amounts, Houston has already paid such amounts, or reasonably expects to pay such amounts within 90 calendar days after the Project Director signs the Withdrawal Request and Certificate, and has documented or will document such amounts in a Semi-Annual Cost Recovery Amounts Report. All earnings and interest attributable to Cash and Cash Equivalent in the Escrow Account are owned by the Authority, and, upon written request from the Authority, shall be released by the Escrow Agent to the Authority or allocated by the Escrow Agent to a particular Cash Call.

Section 5: The Escrow Agent shall pay Houston the funds that are requested by the Project Director in the Withdrawal Request and Certificate within 5 business days of the date the Escrow Agent receives the Withdrawal Request and Certificate. The Escrow Agent shall make each of such payments according to the following procedure: (i) first, it shall draw funds from any Cash that has been deposited for that particular Cash Call, and (ii) second, if there is no such Cash attributable to that Cash Call, then the Escrow Agent shall draw upon the Cash Equivalent attributable to that Cash Call to the extent necessary to pay the funds requested by the applicable Withdrawal Request and Certificate.

Section 6: The Escrow Agent shall deposit all Cash, and hold any Cash Equivalent, received from the Authority in the Escrow Account to be held by the Escrow Agent in a fiduciary capacity for the benefit of the Project Parties for the Expansion Project in accordance with the terms and conditions of the Second Supplement. All moneys in the Escrow Account may only be invested in permitted investments under Chapter 2256 of the Texas Government

Code or deposited in accounts collateralized as required by Chapter 2257 of the Texas Government Code, all as shall be directed in writing by the Authority in compliance with the Authority's investment policy.

Section 7: The Escrow Agent shall (i) within 2 business days of the Authority providing to the Escrow Agent Cash or Cash Equivalent (or the renewal or extension of a Cash Equivalent), provide written notice to the Project Parties of the dollar amount of same with a copy of any Cash Equivalent provided, (ii) send monthly statements to all Project Parties of the Authority's current balance stating any deposits into or disbursements from the Escrow Account, and (iii) in the event the Escrow Agent draws funds from Cash Equivalent, the Escrow Agent shall notify all Project Parties (within 2 business days of the draw) of the balance remaining and available for such Cash Equivalent. Notifications and submittals to all Project Parties must be in writing and are deemed delivered on the earlier of the date actually received or the third business day following (a) deposit in a United States Postal Service post office or receptacle; (b) with proper postage (certified mail, return receipt requested); and (c) addressed to the applicable Project Party at the address set forth below. In addition, upon request from any of the Project Parties to send notices through other methods (including electronic mail), the Escrow Agent shall also send notice through such methods.

North Fort Bend Water Authority:

North Fort Bend Water Authority  
c/o Allen Boone Humphries Robinson, LLP  
Attn: David Oliver  
3200 Southwest Freeway, Suite 2600  
Houston, Texas 77027

With a copy to:  
North Fort Bend Water Authority  
c/o AVANTA Services  
Attn: Pamela Logsdon  
5635 Northwest Central Dr., Suite 104E  
Houston, Texas 77092

The City of Houston:

City of Houston  
City Controller  
c/o Ronald Green  
901 Bagby, 6<sup>th</sup> Floor  
Houston, Texas 77002

With a copy to:  
City of Houston  
Resource Management Division  
c/o Susan Bandy

611 Walker, 25<sup>th</sup> Floor  
Houston, Texas 77002

West Harris County Regional Water Authority:

West Harris County Regional Water Authority  
c/o Allen Boone Humphries Robinson, LLP  
Attn: Alex Garcia  
3200 Southwest Freeway, Suite 2600  
Houston, Texas 77027

With a copy to:  
West Harris County Regional Water Authority  
c/o Myrtle Cruz, Inc.  
Attn: Mary Jarmon  
3401 Louisiana Street, Suite 400  
Houston, Texas 77002

Central Harris County Regional Water Authority:

Central Harris County Regional Water Authority  
c/o Schwartz, Page & Harding, LLP  
Attn: Abraham Rubinsky  
1300 Post Oak Blvd., Suite 1400  
Houston, Texas 77056

With a copy to:  
Central Harris County Regional Water Authority  
F. Matuska Inc.  
Attn: Fran Matuska  
4600 Highway 6 North, Suite 315  
Houston, Texas 77084

North Harris County Regional Water Authority:

North Harris County Regional Water Authority  
Attn: General Manager  
3648 Cypress Creek Parkway, Suite 110  
Houston, Texas 77068

With a copy to:  
North Harris County Regional Water Authority  
c/o Radcliffe Bobbitt Adams Polley PLLC  
Attn: Robin S. Bobbitt  
1001 McKinney, Suite 1000  
Houston, Texas 77002

Section 8. In addition to Section 7, above, the Escrow Agent will provide the Project Parties reports upon request, which reports will describe in reasonable detail all transactions pertaining to the Escrow Account. The Project Parties may also inspect and make copies of the information in the books and records of the Escrow Agent pertaining to the Escrow Account at any time the Escrow Agent is customarily open for business, provided that reasonable time is allowed the Escrow Agent to provide an up-to-date listing or to convert the information into written form.

Section 9. Escrow Agent hereby agrees to hold the Cash and Cash Equivalent in accordance with the terms of this Escrow Agreement and to disburse funds from the Escrow Account in strict accordance with the terms of this Escrow Agreement.

Section 10. As compensation for the Escrow Agent's services as Escrow Agent, the Authority shall be responsible to pay the Escrow Agent the fees set forth in the Escrow Agent's fee schedule attached as **Exhibit C** hereto.

Section 11: This Escrow Agreement shall terminate and any remaining Cash and Cash Equivalent (and earnings and interest attributable to the Cash and Cash Equivalent) shall be released and returned to the Authority within 5 business days after the earlier to occur of (such date, the "Termination Date") (a) January 1, 2027, or (b) the date on which Houston notifies the Escrow Agent in writing that Houston has provided the True-Up Statement to the Authority. Houston shall so notify the Escrow Agent (with a contemporaneous copy to the Authority) at the same time that Houston provides the True-Up Statement to the Authority.

Section 12. The Authority shall have the right to terminate this Escrow Agreement prior to the Termination Date determined in accordance with Section 11 above, with or without cause, upon 30 calendar days prior written notice to all parties hereto; provided, however, that no such termination shall be effective until a successor escrow agent has been appointed and has accepted the duties of the Escrow Agent hereunder. If this Escrow Agreement is terminated prior to the Termination Date, then (a) the Authority shall promptly designate a substitute escrow agent, and (b) the Escrow Agent shall deliver to the successor escrow agent all remaining Cash and Cash Equivalent (and earnings and interest attributable to the Cash and Cash Equivalent) held by the Escrow Agent, and all books and records pertaining to the Escrow Agent's role as Escrow Agent hereunder.

Section 13. Escrow Agent shall have the right to resign at any time by giving 30 calendar days' advance written notice of such resignation to the other parties hereto, specifying the effective date of such resignation. Within fifteen (15) calendar days after the Authority receives such notice, the Authority shall appoint a successor escrow agent to which the Escrow Agent shall turn over the remaining Cash and Cash Equivalent. If a successor escrow agent has not been appointed and has not accepted such appointment by the end of such 30-day period, Escrow Agent may either (a) interplead the Cash and Cash Equivalent in the Escrow Account with a court of competent jurisdiction in Harris County, Texas for the appointment of a successor escrow agent; or (b) appoint a successor escrow agent of its own choice. Subject to the

Authority's termination rights under Section 12, any such appointment of a successor escrow agent shall be binding upon the parties. No such appointed successor escrow agent shall be deemed to be an agent of Escrow Agent.

Section 14. The Escrow Agent shall have only the rights, powers, privileges and duties expressly set forth in this Escrow Agreement, together with those rights, powers and privileges reasonably incident thereto.

Section 15. This Escrow Agreement may be executed in counterparts and by facsimile, portable document format (PDF), and other electronic means, each of which shall be deemed an original and which together shall constitute one and the same agreement.

Section 16. This Escrow Agreement shall not be assignable without the consent of all parties hereto.

Section 17. The terms and provisions of this Escrow Agreement shall be binding upon and inure to the benefit of each of the parties hereto and their permitted successors and assigns. The parties hereto hereby expressly acknowledge and stipulate their intent that each of the Project Parties not executing this Escrow Agreement shall be a third party beneficiary of this Escrow Agreement, and shall have the right and legal standing to enforce the respective obligations of the parties hereto hereunder to the full extent allowed at law or in equity; provided, however, that in no event shall any of the Project Parties have the right to bring suit for money damages against any party hereto in any case or cause of action in which a direct party to this Escrow Agreement would have no right to bring suit for money damages under the terms of this Escrow Agreement.

Section 18. No amendment or changes to this Escrow Agreement shall become effective unless in writing and signed by the Escrow Agent and all of the Project Parties.

Section 19. Houston only has the right to access the Authority's funds that have been deposited in the Escrow Account in accordance with this Escrow Agreement. Funds, if any, that the Authority currently or hereafter deposits or invests with the Escrow Agent in the Escrow Agent's capacity outside of this Escrow Agreement (for example, without limitation, in connection with water projects other than the Expansion Project or bond proceeds related to the Expansion Project that have not yet been deposited in the Escrow Account) shall not be subject to the terms and conditions of this Escrow Agreement.

Section 20. This Escrow Agreement shall be governed by and construed in accordance with the laws of the State of Texas.

IN WITNESS WHEREOF the parties have executed this Escrow Agreement as of the date and year first written in this Escrow Agreement.

\_\_\_\_\_ WATER AUTHORITY]

\_\_\_\_\_  
President, Board of Directors

ATTEST:

\_\_\_\_\_  
Secretary, Board of Directors

(SEAL)

ESCROW AGENT:

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_



**CITY OF HOUSTON (AS BENEFICIARY)**

**APPROVED:**

\_\_\_\_\_  
Director,  
Department

**APPROVED AS TO FORM:**

\_\_\_\_\_  
Assistant City Attorney  
L.D. File No. \_\_\_\_\_

**EXHIBIT A  
SECOND SUPPLEMENT**

00179692

**EXHIBIT B  
WITHDRAWAL REQUEST AND CERTIFICATE**

**Withdrawal Request and Certificate No.** \_\_\_\_

**Date:** \_\_\_\_\_

**To:** \_\_\_\_\_, **Escrow Agent**

Pursuant to the Second Supplement to Water Supply Contract that is referenced in the Escrow & Pay Agent Agreement, I, \_\_\_\_\_, the Project Director, request to withdraw \$x from the Authority's [fill in applicable water authority name] Escrow Account, in accordance with Cash Call No. \_\_\_\_, attached hereto.

I certify the following: (i) that the request for funds is solely to pay for the Authority's pro-rata share of Costs, based on the Authority's applicable Cost Share, funded by the Cash Call attached hereto ; (ii) that, for Costs that are for Engineering Costs or Construction Costs, I have reasonably determined that the funds being withdrawn hereby are needed to pay for such Costs and that such Costs are reasonably estimated to be due from Houston to pay Consultants or the Contractor within 90 calendar days after the date of this Withdrawal Request and Certificate, and (iii) that, for Costs that are for Cost Recovery Amounts, Houston has already paid such amounts, or reasonably expects to pay such amounts within 90 calendar days after the Project Director signs the Withdrawal Request and Certificate, and has documented or will document such amounts in a Semi-Annual Cost Recovery Amounts Report.

Capitalized terms used herein shall have the same meaning given to such terms in the Second Supplement to Water Supply Contract that is referenced in the Escrow & Pay Agent Agreement.

AGREED TO AND CERTIFIED BY, AS OF THE DATE SET FORTH ABOVE:

\_\_\_\_\_  
Project Director

**EXHIBIT C  
ESCROW AGENT'S FEE SCHEDULE**

00179692

**EXHIBIT "E"**  
**CASH CALL NO. 1**

00179427 3



# Cash Call Due #1

## City of Houston

Public Works & Engineering  
 Combined Utility System  
 611 Walker  
 Houston, Texas 77002

DATE: FEBRUARY 12, 2015  
 CASH CALL # 1

TO Mark Evans  
 North Harris County Regional Water Authority  
 3648 Cypress Creek Parkway, Suite 110  
 Houston, Texas 77068  
 281-440-3924  
 Customer ID 7099-3025-9011

PAYMENT BY CASH OR CASH EQUIVALENT SHOULD BE REMITTED TO ESCROW AGENT FOR ESCROW ACCOUNT	PAYMENT TERMS AND DUE DATE
	120 Days after Second Supplement Effective Date

Description	Dollar Amount	Cost Share Percentage	Line Total
Multi-Phase Project Cost (including contingency)	\$ 2,241,992.00	35.313%	\$ 2,241,992.00
Multi-Phase PWE Cost Recovery	\$ 221,116.00	35.313%	\$ 221,116.00
Phase 1 Project Cost (including contingency)			\$ -
Phase 1 PWE Cost Recovery			\$ -
Phase 2 Project Cost (including contingency)			\$ -
Phase 2 PWE Cost Recovery			\$ -
Over-sized Project Cost (including contingency)			\$ -
Over-sized PWE Cost Recovery			\$ -
Full Cost Obligation		100%	\$ -
<b>Total Cash Call Due</b>			<b>\$ 2,463,108.00</b>

<b>Surplus from Previous Cash Calls</b>	\$ -
---	------

CERTIFICATION PER § 3.7.5 IS INCLUDED ON THE FOLLOWING PAGE

**ATTACHMENTS:**  
 CERTIFICATION PER § 3.7.5  
 CALCULATION OF AMOUNT DUE

# Cash Call Due #1

## CASH CALL CERTIFICATION PER § 3.7.5

1. The dollar amount due from each Project Party pursuant to this Cash Call does not exceed the estimated dollar amount provided in the Notice of Upcoming Cash Call related to this Cash Call and is only for costs that have been approved pursuant to Article 6.
2. The calculation of the amount due shown on page 1 of this Cash Call is included on the next page of this document.
3. The Cash Call Due Date is **120 days after Second Supplement Effective Date.**
4. The costs and work items to be paid with the proceeds of this Cash Call are as follows:

Ordinance 2012-121 Original Carollo Engineering Contract, First Amendment 2013-155  
& Second Amendment 2014-160

- 1) Project Framework Development
- 2) NEWPP Treatment Concepts
- 3) Scenario & Delivery Alternative Development
- 4) Alternative Assessment
- 5) Project Controls
- 6) Project Delivery Alternatives Report

Ordinance 2014-962 - Carollo Engineering Contract

- 1) Perform raw water system planning and permitting assistance
- 2) Perform US Corp 404 and environmental permitting
- 3) Perform pilot operations
- 4) Perform Texas Commission on Environmental Quality coordination and reporting
- 5) Perform special testing and monitoring
- 6) Provide project administrative, permitting, communications and scheduling support
- 7) Conduct supporting and special studies as necessary to support project management decision-making

Ordinance 2014-1183 Legal Services Hawkins Delafield & Wood LLP

- 1) Project definition and plan
- 2) RFQ Preparation, Issuance and Evaluation
- 3) Preparation and Issuance of RFP and DRAFTY PDB Agreement
- 4) Proposal Development and Submittal
- 5) Proposal Evaluation
- 6) Negotiation and Award
- 7) Post-Execution and Establishment of Final Pricing

5. The City of Houston reasonably expects to spend all of the proceeds of the Cash Call within three (3) years of the Cash Call due date.

NOTE: Any surplus from previous Cash Calls is listed on the first page of this Cash Call.

\_\_\_\_\_  
Project Director

City of Houston  
 Department of Public Works & Engineering  
 Combined Utility System



NE Plant Expansion Project Tracking - Cash Call #1  
 Contracts

COH Ord No.	Date	Appropriated & Authorized		
		Appropriated \$s	Contract	Cost Recovery
Remaining \$s from 3 Ordinances authorized and not spent	N/A	\$ 875,173	\$ 749,004	\$ 126,169
2012-0121, 2013-155 & 2014-0160				
2014-0962 Carollo Engineering	10/14/2014	\$ 5,500,000	\$ 5,000,000	\$ 500,000
2014-1183 Legal Services	12/16/2014	\$ 600,000	\$ 600,000	N/A
<b>TOTAL</b>		<b>\$ 6,975,173</b>	<b>\$ 6,349,004</b>	<b>\$ 626,169</b>

By Regional Authorities EXPANSION ONLY

Participants	Appropriation Allocation to Participants		
	%	Appropriated \$s	Contract
<b>TOTAL</b>		<b>\$ 6,975,173</b>	<b>\$ 6,349,004</b>
NHCRWA	35.313%	\$ 2,463,108	\$ 2,241,992
CHCRWA	1.525%	\$ 106,371	\$ 96,822
NFBWA	21.406%	\$ 1,493,123	\$ 1,359,084
WHCRWA	25.756%	\$ 1,796,543	\$ 1,635,265
COH	16.000%	\$ 1,116,028	\$ 1,015,841
<b>Total</b>	<b>100.000%</b>	<b>\$ 6,975,173</b>	<b>\$ 6,349,004</b>





C176507  
2015-1076

**THIRD SUPPLEMENT TO WATER SUPPLY CONTRACT  
BETWEEN THE CITY OF HOUSTON, TEXAS AND THE NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY**

**FOR THE NORTHEAST TRANSMISSION LINE—SEGMENT 1**

**THIS THIRD SUPPLEMENT TO WATER SUPPLY CONTRACT FOR THE NORTHEAST TRANSMISSION LINE—SEGMENT 1** (this "Third Supplement") is made by and between the **CITY OF HOUSTON, TEXAS** ("Houston") and the **NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY** (the "Authority") for the purpose of providing for the construction of an additional large-diameter water transmission line as described in this Third Supplement. This Third Supplement is effective on the date of countersignature hereof by the Houston Controller ("Effective Date"). For and in consideration of the premises and mutual covenants and agreements contained herein, the parties hereto do mutually agree as follows:

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**EXHIBITS**

- "A" PARTICIPATION TABLE
- "B" PROJECT BUDGET
- "C" PROPOSED ALIGNMENT AND SUB-SEGMENTS
- "D" SCHEDULE
- "E" PROJECT COSTS APPROPRIATED BEFORE NOVEMBER 1, 2015

## ARTICLE I.

### RECITALS

- 1.1 Houston is a home-rule municipality, principally located in Harris County, Texas. Houston owns a water treatment and distribution system. Houston and the Authority, as well as the West Harris County Regional Water Authority, the North Fort Bend Water Authority, and Central Harris County Regional Water Authority (collectively, the "Other Authorities"), plan to construct a transmission line from Houston's Northeast Water Purification Plant located at 12121 North Sam Houston Parkway East, Humble, Texas 77396 ("NEWPP"). The transmission line will consist of two segments, one (1) 120-inch segment running west from inside the NEWPP to a point where it connects to the 96-inch segment described below, and one (1) 96-inch segment running southwest approximately 200 feet. Such two segments are generally shown on *Exhibit "C"* as Sub-Segment A and Sub-Segment B, respectively, and are referred to herein collectively as "Segment 1". In addition, the Fourth Supplement (defined below) provides for the construction of an additional large diameter water transmission line from the end of Sub-Segment A, generally following the public rights-of-way and future easements along Beltway 8 to the west side of Interstate 45 to a specific point depicted in the Fourth Supplement ("Segment 2").
- 1.2 The Authority is a Texas conservation and reclamation district organized and operating under the provisions of House Bill No. 2965, Seventy-Sixth Legislature, as amended, and the Texas Water Code, as amended, and Texas Constitution Article XVI, Section 59.
- 1.3 The Authority has entered into Contract No. 54614, dated December 16, 2002 (the "Original Contract"), with Houston for the purchase by the Authority of treated surface water from the NEWPP.
- 1.4 Houston and the Authority executed a First Supplement to Water Supply Contract ("First Supplement") to provide for the cost sharing, permitting, engineering, surveying, construction, and right-of-way and site acquisition necessary for the Luce Bayou Interbasin Transfer Project ("Luce Bayou") to convey untreated water from the Trinity River to Lake Houston, which Houston approved pursuant to Ordinance 2009-0052 (January 28, 2009).

- 1.5 Houston and the Authority executed a First Amendment to the First Supplement ("First Amendment") in order to clarify certain funding for Luce Bayou, which Houston approved pursuant to Ordinance 2013-0044 (January 22, 2013).
- 1.6 Houston and the Authority executed a Second Supplement to Water Supply Contract ("Second Supplement") in order to provide for the cost sharing, permitting, engineering, surveying, construction, and right-of-way and site acquisition (if any) necessary for a 320 MGD expansion of the NEWPP, which Houston approved pursuant to Ordinance 2015-0139 (February 25, 2015). The Original Contract, First Supplement, First Amendment, and Second Supplement are referred to herein collectively as the "Water Supply Contract."
- 1.7 Houston and the Authority intend to execute a contract contemporaneously with the execution of this Third Supplement to provide for the cost sharing, permitting, engineering, surveying and construction necessary for Segment 2 ("Fourth Supplement").
- 1.7.1 Houston has executed contracts with each of the Other Authorities that are substantially similar to the Water Supply Contract and intends to execute contracts with each of the Other Authorities that are substantially similar to this Third Supplement. Houston also intends to execute a contract with the Central Harris County Regional Water Authority that is substantially similar to the Fourth Supplement.
- 1.8 Houston does not require any additional rights-of-way, sites or easements for Segment 1.
- 1.9 Houston will commence preparation of the plans and specifications for Segment 1 in accordance with this Third Supplement, and hereby represents that such plans and specifications will be completed in a good and workmanlike manner and in accordance with all applicable rules, regulations and requirements of all applicable governmental entities having jurisdiction over the design, construction or operation of Segment 1. Contingent upon the Authority timely satisfying its obligations to make payments to Houston under this Third Supplement and the Other Authorities timely satisfying their obligations to make payments to Houston under agreements that are substantially similar to this Third Supplement, Houston and the Authority intend for Houston to cause the Segment 1 Project (defined below) to be substantially complete not later than September 1, 2020.

- 1.10 The Authority desires to participate with Houston in the Segment 1 Project (defined below) in order to convey to Segment 2 treated surface water the Authority has contracted to receive pursuant to the Water Supply Contract.
- 1.11 Houston and the Authority desire to participate in this Third Supplement to clarify and agree to the terms for the cost sharing, permitting, engineering, surveying, construction, operation, and maintenance necessary for Segment 1 and to amend the definitions of certain terms in the Water Supply Contract to include the facilities being constructed by the Segment 1 Project (defined below).
- 1.12 Houston is authorized to enter into this Third Supplement pursuant to its Home Rule Charter and Texas law, including Section 49.068 of the Texas Water Code.
- 1.13 The Authority is authorized to enter into this Third Supplement pursuant to Texas law, including Section 49.068 of the Texas Water Code.

## **ARTICLE II DEFINITIONS**

Unless the context requires otherwise, capitalized terms in this Third Supplement shall have the meaning provided in the Water Supply Contract. In addition, unless the context requires otherwise, the following terms used in this Third Supplement shall have meanings provided below. In the event of a conflict between the definition of a term provided in the Water Supply Contract and that provided in this Third Supplement, the definition in this Third Supplement shall control for purposes of this Third Supplement.

- 2.1 "AUP Report" means a report and associated findings obtained by Houston to review the accounting for and allocation to the parties of Project Costs which is produced by an independent accounting firm engaged by Houston under an agreed-upon procedures engagement conducted in accordance with (i) Section 4.7 of this Third Supplement, and (ii) the Statements on Standards for Attestation Engagements published by the American Institute of Certified Public Accountants.

- 2.2 "Authorized Investments" means investment pool(s): (i) that comply with the requirements of Houston's investment policy and Texas Government Code Chapter 2256, and (ii) in which Houston's funds (in addition to funds from the Authority) may be invested.
- 2.3 "Authority Representative" shall mean the Authority's General Manager, or an alternative individual approved by the General Manager, which individual may be changed from time to time.
- 2.4 "Authority's Segment 1 Reservation" is 113 MGD, as reflected in *Exhibit "A"* (Participation Table) and constitutes the Authority's Treated Water Facilities Demand Allocation in Segment 1.
- 2.5 "Completion Date" shall mean the date by which the Segment 1 Project (defined below) must be substantially complete, which is September 1, 2020, or such other date on which the Utility Official and the Authority Representative may agree in writing, subject to (i) the Authority's timely compliance with its obligations to pay as provided in this Third Supplement, (ii) the Other Authorities' timely compliance with their obligations to pay as provided in agreements that are substantially similar to this Third Supplement, and (iii) Houston's customary terms and provisions within its construction contracts regarding extension of time.
- 2.6 "Construction Contractor" shall mean a contractor with which Houston contracts for the construction of the Segment 1 Project.
- 2.7 "Construction Costs" shall mean the costs associated with the construction of the Segment 1 Project (defined below), including all reasonable costs for labor, equipment, materials, and related Cost Recovery Amounts.
- 2.8 "Construction Payment" means the Authority's Pro Rata Share (defined below) of Construction Costs for the Segment 1 Project (defined below).
- 2.9 "Cost Recovery Amounts" means the portion of the costs of Houston's employees' salaries, associated benefits, overhead, and itemized costs paid from the cost recovery fund (Houston's Fund 1001), that are allocated and attributable to the Segment 1 Project for the period beginning on July 1, 2015, and concluding as of the date of final completion of the Segment 1 Project and shall be calculated in the same manner as provided in Section 3.13 of the Second Supplement.

- 2.10 "Effective Date" shall mean the date on which the Houston Controller countersigns this Third Supplement.
- 2.11 "Engineering Costs" shall mean the costs for engineering work associated with the Segment 1 Project (defined below), including all reasonable costs for the planning, management, oversight, inspection, basis of design, engineering design, geotechnical investigations, surveys, estimates, materials testing, plans, specifications, investigations, related Cost Recovery Amounts, and necessary permitting and regulatory review and approval.
- 2.12 "Engineering Payment" shall mean the Authority's Pro Rata Share (defined below) of the Engineering Costs for the Segment 1 Project (defined below).
- 2.13 "First Amendment" shall have the meaning given in Section 1.5 above.
- 2.14 "First Supplement" shall have the meaning given in Section 1.4 above.
- 2.15 "Fiscal Year" shall mean Houston's fiscal year, as determined from time to time by Houston, which currently expires on June 30<sup>th</sup> of each calendar year.
- 2.16 "Fourth Supplement" shall have the meaning given in Section 1.7 above.
- 2.17 "MGD" shall mean million(s) of gallons per day of Water.
- 2.18 "NEWPP" shall have the meaning given in Section 1.1 above.
- 2.19 "Original Contract" shall have the meaning given in Section 1.3 above.
- 2.20 "Other Authorities" shall have the meaning given in Section 1.1 above.
- 2.21 "Pro Rata Share" shall mean the proportion of the Segment 1 Capacity (defined below) in each Sub-Segment (defined below) allocable to each party stated as a percentage, as specifically set forth on *Exhibit "A"* hereto.



- 2.22 "Project Account" shall mean a segregated fund established and controlled by Houston for the receipt and disbursement of the funds of the Authority and the Other Authorities, and used by Houston to pay the Authority's and the Other Authorities' respective Pro Rata Shares of Project Costs (defined below), as set forth herein.
- 2.23 "Project Budget" shall mean the chart attached as *Exhibit "B"*, which (a) reflects the estimated Project Costs (defined below) for each Sub-Segment (defined below), including any Project Costs previously appropriated pursuant to Section 4.3 (Previously Appropriated Project Costs), and (b) will be updated in accordance with this Third Supplement to reflect the updated estimated and actual Project Costs for each Sub-Segment.
- 2.24 "Project Costs" shall mean Engineering Costs and Construction Costs, except any of such costs which are incurred exclusively for the benefit of one party and with that party's prior written approval.
- 2.25 "Schedule" shall mean the chart attached hereto as *Exhibit "D"* which reflects the currently estimated timing of work items necessary to complete the Segment 1 Project (defined below).
- 2.26 "Second Supplement" shall have the meaning given in Section 1.6 above.
- 2.27 "Segment 1" shall have the meaning given in Section 1.1.
- 2.28 "Segment 2" shall have the meaning given in Section 1.1.
- 2.29 "Segment 1 Capacity" shall mean the Water transmission capacity of Segment 1, as reflected in *Exhibit "A."*
- 2.30 "Segment 1 Project" shall mean the project for design and construction of Segment 1.
- 2.31 "Segment 1 Project Parties" shall mean, collectively, Houston, the Authority and the Other Authorities. "Segment 1 Project Party" shall mean any one (1) of the Segment 1 Project Parties.

- 2.32 "Sub-Segment" means one of the two (2) discrete portions of the Segment 1 Project depicted in *Exhibit "C,"* as such discrete portions may be altered as agreed upon in writing by the Utility Official and the Authority Representative from time-to-time during the Segment 1 Project.
- 2.33 "Sub-Segment A" is the 120-inch Sub-Segment that serves all of the Segment 1 Project Parties, and is designated as "Sub-Segment A" on *Exhibit C.*
- 2.34 "Sub-Segment B" is the 96-inch Sub-Segment that solely serves the North Fort Bend Water Authority and the West Harris County Regional Water Authority, and is designated as "Sub-Segment B" on *Exhibit C.*
- 2.35 "True-up" shall have the meaning assigned in Section 4.7.2 below.
- 2.36 "Utility Official" shall mean the Director of the Department of Public Works and Engineering of Houston, or any other person who may hereafter exercise the functions of said Director under the applicable Ordinances of Houston.
- 2.37 "Water" shall mean potable treated surface water from the Houston System.
- 2.38 "Water Supply Contract" shall have the meaning given in Section 1.6 above.

**ARTICLE III  
DESIGN AND CONSTRUCTION OF SEGMENT 1**

- 3.1 Design and Construction by Houston. Subject to the Authority providing funding for its Pro-Rata Share of Project Costs as provided herein, Houston shall be responsible for the permitting, engineering, surveying, construction, operation, and maintenance necessary for Segment 1 such that Segment 1 is capable of delivering the Authority's Segment 1 Reservation to Segment 2.
- 3.1.1 Houston shall consider the Authority as a major participant with Houston in Segment 1 and as such shall afford the Authority all reasonable opportunities to participate in the major decisions concerning the Segment 1 Project. To that end, the Authority Representative shall be invited to attend all design scoping, design consideration, pre-bid, pre-construction, and progress meetings held in connection with the Segment 1 Project.

3.1.2 The Utility Official has reviewed the Authority's Segment 1 Reservation and has determined in cooperation with the Authority Representative, that based on information available as of the Effective Date, Segment 1 will provide the capacity necessary to serve the needs of the Authority in accordance with the Authority's Segment 1 Reservation.

3.1.3 Houston may include the Segment 1 Project in the Expansion Project, subject to the terms of the Second Supplement.

3.1.4 To the extent that Houston is not required to appropriate additional funds, the Utility Official and the Authority Representative may agree in writing to modify the size and/or scope of the Segment 1 Project or the Authority's Segment 1 Reservation. In the event of such an agreement, the Utility Official and the Authority Representative may also agree in writing to conforming amendments to the Exhibits to this Third Supplement.

3.2 Construction of Segment 1. Segment 1 shall be constructed pursuant to a construction contract to be entered into by Houston at such time as it is determined reasonably necessary by Houston to achieve completion of the Segment 1 Project on or before the Completion Date, and to meet the Schedule attached hereto as *Exhibit "D"* (Schedule). The Utility Official has provided estimates of the Engineering Costs and Construction Costs for the Segment 1 Project, as well as the manner of calculation and the Segment 1 Project Parties' respective Pro Rata Shares of such costs, all as more specifically set forth on *Exhibit "B"* (Project Budget). The Utility Official shall cause an updated Project Budget to be regularly prepared and promptly provided to the Authority Representative throughout the Segment 1 Project. However, such updates to the Project Budget shall not constitute an amendment to *Exhibit "B"* hereto.

3.3 Allocation of Segment 1 Capacity and Project Costs. The Segment 1 Capacity is based on certain assumptions including, but not limited to, the Authority's Segment 1 Reservation, as provided in the Participation Table in *Exhibit "A"*.

3.3.1 The Authority's Pro Rata Share of Segment 1 Capacity for each Sub-Segment shall be determined by the following formula:

$$C = B/A$$

Where: "A" is the Segment 1 Capacity for the Sub-Segment.

"B" is the Authority's Segment 1 Reservation for the Sub-Segment.

"C" is the Authority's Pro Rata Share of Segment 1 Capacity for the Sub-Segment.

3.3.2 The Authority's Pro Rata Share of Project Costs for each Sub-Segment shall be determined by the following formula:

$$E = C \times D$$

Where: "C" is the Authority's Pro Rata Share of Segment 1 Capacity for the Sub-Segment, as determined in accordance with Section 3.3.1 above.

"D" is the total of Project Costs for the Sub-Segment.

"E" is the Authority's Pro Rata Share of Project Costs for the Sub-Segment.

3.3.3 Throughout the Segment 1 Project, Houston shall separately track all costs for each Sub-Segment so that the Project Costs for each Sub-Segment can be accurately determined.

3.4 Design Responsibility and Engineering Costs. In accordance with applicable law, Houston shall engage an engineering firm to design Segment 1. Upon procuring the services of such a firm, Houston shall provide the Authority with notice of Houston's intent to engage such firm, which notice shall include the total amount of Engineering Costs Houston shall pay under the engagement, the amount of such costs applicable to any Engineering Payment and any Construction Payment, respectively, and the Authority's Pro Rata Shares of each of same. Except as may otherwise be agreed upon by the Utility Official and the Authority Representative, upon completion of the sixty percent (60%), ninety percent (90%) and final plans and specifications for the Segment 1 Project, the Utility Official shall provide the Authority Representative with copies of same, and any addenda or supplements thereto, for review and comment, which comments shall be provided to the Utility Official within fifteen (15) days of receipt by the Authority Representative. The Authority, contemporaneous with providing written comments to Houston pursuant to this sub-section, shall provide a copy of same to the Other Authorities. Upon request by the Authority, the Utility Official shall schedule a meeting with the Authority Representative and other attendees as may be invited by the Authority Representative in order to

review and discuss such comments. After such meeting, the Utility Official shall cause the Authority's comments to be integrated and included on such plans and specifications where such integration and inclusion are practical, as reasonably determined by the Utility Official.

3.5 Construction Contract. Subject to the conditions described below and procurement in accordance with applicable law, Houston shall enter a contract with a Construction Contractor.

3.5.1 Prior to providing the construction contract or any addenda or supplements thereto to a prospective Construction Contractor, Houston shall provide a draft of same to the Authority Representative for review and comment. At the same time Houston sends the Authority Representative a construction contract, Houston shall also send to the Authority the following information: (a) a detailed breakdown of the estimated Project Costs included in such construction contract; (b) the Pro-Rata Share of same to be paid by each of the Segment 1 Project Parties; and (c) the then-current balance of the Project Account and the allocation of such balance to each Segment 1 Project Party (collectively referred to in this sub-section as the "Supplementary Information"). With regard to the construction contract and the Supplementary Information, the Authority Representative shall provide any comments to the Utility Official within fifteen (15) days after the Authority Representative's receipt of same. With regard to any addenda or supplements to the construction contract, the Authority Representative shall provide written comments, if any, within five (5) business days after receipt of same. Additional time for review may be granted by Houston to the Authority, upon request, if such additional time will not adversely affect the construction schedule of Segment 1. Upon request by the Authority, the Utility Official shall schedule a meeting with the Authority Representative in order to review and discuss any such comments. The Utility Official shall reasonably consider all such comments provided by the Authority Representative and, in his or her reasonable discretion, integrate and address such comments in the construction contract, addendum or supplement, as applicable, where practical. Houston shall not disclose any such written comments provided by the Authority pursuant to this sub-section unless such disclosure is required by the Texas Public Information Act. The Authority, contemporaneous with providing written comments to Houston pursuant to this sub-section, shall provide a copy of same to the Other Authorities. Any such written comments the Authority receives from Houston or the Other Authorities shall not be

disclosed by the Authority unless required to do so pursuant to the Texas Public Information Act.

- 3.5.2 The Utility Official may, in his or her reasonable discretion, include in the construction contract work items to be performed for the benefit of less than all of the Segment 1 Project Parties, but such items are not part of the Segment 1 Project and the costs related to same are not Project Costs ("Non-Project Items"). If Houston includes any Non-Project Items in the construction contract at the written request and for the benefit of the Authority, the Authority shall be obligated to pay for its share of the costs of same in proportion to the Authority's benefit resulting therefrom and in accordance with this Third Supplement as though such costs were Project Costs. If any Non-Project Items are included in the construction contract and the Authority did not request such items in writing, Houston shall provide written notice to the Authority of its intent to include the Non-Project Items in the construction contract and the estimated costs of same, and the Authority shall not be obligated to pay for any costs related to same. Houston shall list any Non-Project Items as separate line items in the bid documents for the construction contract in which such items are included. In addition, Houston shall be responsible for sending invoicing for and executing work on Non-Project Items as if they were part of the Segment 1 Project. Sub-Segment B shall not be considered as a "Non-Project Item."
- 3.5.3 Houston shall administer the construction contract in accordance with applicable governmental rules and regulations. Houston will monitor the construction for general conformance with the plans and specifications and to ensure that the work is performed in a good and workmanlike manner and generally in accordance with all applicable rules, regulations and requirements of the governmental entities having jurisdiction over the construction of the Segment 1 Project. Houston shall immediately notify the Authority Representative of any significant contract issues or problems which may adversely affect the Segment 1 Project or its scheduled completion date.
- 3.5.4 Houston shall include in the construction contract with a Construction Contractor a requirement that the Construction Contractor achieve substantial completion of the Segment 1 Project no later than the Completion Date, provided that Houston may require substantial completion at an earlier date. In addition, Houston shall also include a paragraph in the construction contract that provides for liquidated damages in the amount

of \$50,000 per day in the event of a delay by the Contractor in achieving substantial completion beyond the Completion Date. Notwithstanding the foregoing, at the time of contracting with the Construction Contractor, the Utility Official and the Authority Representative shall review the appropriateness of the aforementioned amount of liquidated damages and may agree in writing to a different amount to be included in the construction contract for Segment 1. In addition, Houston shall include in such contract a paragraph that is substantially similar to the following:

"Contractor acknowledges the City's commitments to the Central Harris County Regional Water Authority, North Harris County Regional Water Authority, West Harris County Regional Water Authority and North Fort Bend Water Authority ("Authorities") under the Third Supplement to Water Supply Contract For The Northeast Transmission Line-Segment 1 ("Third Supplement") and agrees that the Authorities will suffer damages in the event of a delay by the Contractor in achieving substantial completion beyond the Completion Date provided in such Third Supplements. Without limiting anything set forth elsewhere in this construction contract regarding liquidated damages, Contractor acknowledges that the Authorities' damages are an intended factor in the calculation of the amount of the liquidated damages hereunder and agrees that each of the Authorities are singularly and collectively third-party beneficiaries of the Contractor's obligation to pay liquidated damages under this construction contract. Contractor and the City of Houston acknowledge and agree that this paragraph is an express exception to the limitation on third-party rights set forth elsewhere in this construction contract and a material inducement to obtain funding of this construction contract by the Authorities in accordance with their respective Third Supplements. However, nothing in this paragraph is intended to provide the Authorities with an independent right of action against the Contractor; it being understood that the City will be responsible for the enforcement of the rights of the Authorities under this paragraph."

The Utility Official and Authority Representative may agree in writing to modifications to this Section.

- 3.6 Change Orders to Construction Contracts. The Utility Official shall submit any change orders with a value over five percent (5%) of the original construction contract price to the Authority Representative for review. If the Authority Representative does not make written objections within five (5) business days after receipt of the change order, Houston may assume the Authority has no comments to such change; provided, however, that additional time for review and comment may be granted by Houston to the Authority, upon request, if such additional time will not adversely affect the construction schedule of Segment 1. If an objection is made by the Authority, Houston shall reasonably consider same and use good faith efforts to address the objection where practical. Notwithstanding the foregoing, Houston shall not be allowed to approve a change order to a construction contract if the change order allows substantial completion of a Segment 1 to occur after the Completion Date without the prior written approval of the Authority Representative.
- 3.7 Site Visits and Reports. Houston shall provide the Authority Representative with notice of and an opportunity to participate in any final inspection and/or walk-through of the completed Segment 1 Project, including participation in the development of final punch lists and final acceptance thereof.
- 3.8 Ownership and Segment 1 Capacity. Unless otherwise agreed in writing by Houston and the Authority, Houston shall hold legal title to Segment 1; provided, however, that Houston and the Authority shall each have an undivided equitable interest in the use and benefit of Segment 1 Capacity, in accordance with their respective Pro Rata Shares of Segment 1 Capacity.
- 3.9 Books, Records and Data. All books, test data, charges, and other records relating to the rendering of and billing for the Project Costs (collectively, the "Construction Records") shall be preserved by Houston in accordance with Houston's records retention schedules, if any, and otherwise in compliance with all laws and regulations regarding the same, but in no case less than two (2) years following the completion of an AUP Report for the Segment 1 Project.
- 3.9.1 Houston shall make such Construction Records available to the Authority for inspection at Houston's place of business in Harris County, Texas during normal business hours.



3.9.2 Houston shall make available to the Authority for review all information, data and records concerning the discharge flow rate and pressures through Segment 1 and all relevant data related to the Houston System located between the NEWPP and Segment 2.

3.10 Time of Completion. Houston agrees to proceed with due diligence to construct Segment 1 in order to provide Water to the Authority in accordance with the terms of this Third Supplement.

#### **ARTICLE IV PAYMENT OF PROJECT COSTS**

4.1 Funds Held in Trust; Limitations on Use. Until funds remitted to Houston by the Authority are expended in accordance with this Third Supplement, all payments from the Authority to Houston for the Segment 1 Project shall (i) continue to be funds of the Authority, held by Houston in trust for the benefit of the Authority; (ii) be deposited only into the Project Account; (iii) be invested only in Authorized Investments, with all earnings and interest thereon inuring to the benefit of the Authority; and (iv) be applied only to the Authority's Pro Rata Share of Project Costs.

4.2 General Invoice & Payment Requirements. Except as otherwise provided in this Third Supplement, this Section applies to all invoices for Project Costs Houston sends to the Authority and the corresponding payments the Authority sends to Houston pursuant to this Third Supplement.

4.2.1 The Utility Official shall cause invoices to be sent to the Authority Representative at the times and in the manner contemplated in Sections 4.4 (Engineering Payments) and 4.5 (Construction Payments). Houston shall include the following information on any such invoice: (a) a detailed breakdown of the Project Costs included therein; (b) the Pro-Rata Share of same to be paid by each of the Segment 1 Project Parties; (c) the then-current balance of the Project Account and the allocation of such balance to each Segment 1 Project Party.

4.2.2 Unless the Authority Representative objects in writing to such invoice within five (5) business days after receipt of same, Houston may assume the Authority has no comments to the invoice; provided, however, that additional time for review and comment may be granted by Houston to the Authority, upon request, if such additional time will not

adversely affect the construction schedule of Segment 1. If an objection is made by the Authority, Houston shall reasonably consider same and use good faith efforts to address the objection where practical.

4.2.3 Within 45 days of receipt of an invoice, the Authority shall pay to Houston the amount stated in such notice.

4.3 Previously Appropriated Project Costs. The Authority acknowledges that Houston has appropriated funds for Project Costs prior to November 1, 2015. As a pre-condition to entering this Third Supplement, the Authority hereby agrees to pay its Pro Rata Share of such Project Costs appropriated by Houston prior to November 1, 2015, which the Parties hereby agree is \$48,450, as stated on *Exhibit "E"*. The Authority agrees to pay Houston such \$48,450 within ninety (90) days of the Effective Date. The Authority is not responsible for any Project Costs appropriated by Houston prior to November 1, 2015, other than such \$48,450, which amount includes Houston's internal costs related to the Segment 1 Project incurred prior to November 1, 2015. The Utility Official shall have the authority to draw such funds from the Project Account, according to the Authority's Pro Rata Share, in order to reimburse Houston for Project Costs previously paid by Houston and pay for Project Costs directly, all after presentation of invoices to the Authority Representative for such Project Costs.

4.4 Engineering Payments. After receiving proposals and prior to engaging a design engineer for the Segment 1 Project, the Utility Official shall invoice the Authority for the Engineering Payment in accordance with Section 4.2 (General Invoice & Payment Requirements). Houston shall use an Engineering Payment solely to pay the Authority's Pro Rata Share of the Engineering Costs for the Segment 1 Project. If at any time after the Authority pays the Engineering Payment, the Utility Official determines, in his or her reasonable discretion, that the Engineering Payment will be insufficient to fund the Authority's Pro Rata Share of Engineering Costs through final completion of Segment 1, the Utility Official shall invoice the Authority for its Pro Rata Share of such shortfall according to the provisions of Section 4.2 (General Invoice & Payment Requirements).

4.5 Construction Payments. After receiving bids from prospective contractors and selecting a Construction Contractor to whom the Utility Official will recommend Houston award the construction contract for the Segment 1 Project, the Utility Official shall invoice the Authority

for its Construction Payment in accordance with Section 4.2 (General Invoice & Payment Requirements), which shall be in the amount of the Authority's Pro Rata Share of such construction contract, plus up to an additional five percent (5%) of such amount to fund construction contingency items. Houston shall use Construction Payments solely to pay the Authority's Pro Rata Share of Project Costs.

- 4.6 Payment of Pay Estimates for Construction Costs. The Utility Official shall review the monthly pay estimates related to the construction of the Segment 1 Project as submitted by the Construction Contractor. If Houston accepts the work as having been performed in general conformance with the construction contract, the Utility Official shall submit such pay estimate to the Authority Representative, including each Segment 1 Project Party's respective Pro Rata Share of same. The Authority Representative may provide written comments, if any, within five (5) business days following the date same is received by the Authority Representative. The Utility Official shall reasonably consider such comments and use good faith efforts to satisfy same where practical. Houston shall then be entitled to draw on the Project Account to pay the Authority's Pro Rata Share of the pay estimate(s). Following final completion of Segment 1 and acceptance of the same by Houston and the Authority and, if applicable, any other appropriate governmental entity, Houston shall issue a certificate of completion and the final pay estimate from the Construction Contractor shall be submitted to the Authority Representative for review.
- 4.7 AUP Reports. Within sixty (60) days of Houston's issuance of its audited annual financial statement following final completion of the Segment 1 Project, but in no event later than the following March 1, Houston shall initiate the preparation of an AUP Report for the Segment 1 Project in order to verify that the Authority has paid its appropriate share of Project Costs. Such AUP shall also verify that Houston used the funds paid by the Authority under Section 4.3 (Previously Appropriated Project Costs): (i) to reimburse itself for the Authority's Pro Rata Share of Project Costs incurred by Houston, and/or (ii) to pay for the Authority's Pro Rata Share of Project Costs. Each Segment AUP Report shall be prepared in accordance with the accounting procedures to be agreed upon by the Utility Official and the Authority Representative and shall take into account all Project Costs, the Authority's Pro Rata Share of such costs, any liquidated damages owed to the Authority pursuant to Section 3.5.4 hereof (based on the Authority's Pro Rata Share of Sub-Segment A), and any earnings and interest accrued on the Authority's prepayment of Project Costs.

4.7.1 Houston shall cause the AUP Report to be completed within one-hundred twenty (120) days after it is initiated. Houston shall engage an independent certified public accounting firm to conduct the AUP Report. As soon as such firm has completed the AUP Report, Houston shall submit a copy of such AUP Report to the Authority for review. The Authority shall have sixty (60) days to review the AUP Report and to provide comments on same to Houston. Houston shall address the Authority's comments and approve the final AUP Report within thirty (30) days of receipt of the Authority's comments, unless the Authority Representative and the Utility Official agree otherwise. Notwithstanding the foregoing, the Utility Official and the Authority Representative may agree in writing to vary the aforementioned schedule for completion of the AUP Report.

4.7.2 In accordance with the AUP Report, Houston and the Authority agree to "true-up" the payments for Project Costs such that if the Authority has underpaid its Pro Rata Share of Project Costs, Houston will invoice the Authority in accordance with Section 4.2 (General Invoice & Payment Requirements). Conversely, if the Authority has overpaid any such costs according to the AUP Report, Houston will pay the amount of such overpayment to the Authority within 45 days of Houston's approval of the AUP Report. The process described in this sub-section shall be referred to herein as a "True-up."

**ARTICLE V**  
**COMPONENT PARTS OF SEGMENT 1 INCLUDED IN DEFINED TERMS**  
**OF WATER SUPPLY CONTRACT**

5.1 Transmission Facilities. Upon substantial completion of Sub-Segment A, Sub-Segment A is included in the definition of Transmission Facilities in the Water Supply Contract, all provisions of the Water Supply Contract applicable to Transmission Facilities apply to same, and *Exhibit "D"* to the Original Contract is amended to include that portion of *Exhibit "C"* hereto that depicts Sub-Segment A.

**ARTICLE VI**  
**GENERAL MISCELLANEOUS PROVISIONS**

6.1 Term and Expiration. This Third Supplement shall be in force and effect from and after the Effective Date and shall expire at noon on January 1, 2080. At such time as this Third

Supplement is no longer in force and effect, if requested in writing by the Authority, Houston agrees to continue to provide water to the Authority through Segment 1 upon the payment of reasonable rates and charges therefor which take into account the capital payments paid by the Authority to Houston pursuant to this Third Supplement (and any amendments or supplements thereto) and the Authority's equitable interest described below. Upon the date this Third Supplement is no longer in force and effect, the Authority will continue to own the right to use its Pro Rata Share of Segment 1 Capacity. The immediately preceding two (2) sentences shall survive the expiration or termination of this Third Supplement.

- 6.2 Ingress and Egress. During the term of this Third Supplement, and upon the giving of prior notification to the Authority, Houston shall have the right of ingress and egress in, upon, under and over any and all land, easements and rights-of-way of the Authority on which Houston, with the Authority's consent, constructs facilities to deliver Water to the Authority.
- 6.3 Assignments. This Third Supplement shall bind and benefit the respective parties and their legal successors, but shall not otherwise be assignable, in whole or in part, by either party without first obtaining written consent of the other. "Assignment" as used herein means assignment in law or otherwise.
- 6.4 Subject to Law. This Third Supplement shall be subject to all present and future valid laws, orders, rules and regulations of the United States of America, the State of Texas, any regulatory body having jurisdiction and the Charter and Ordinances (to the extent the Ordinances are not inconsistent with this Third Supplement) of the City of Houston, Texas. In order to protect the Houston System it is specifically agreed that the Authority System shall be constructed and operated to comply with the rules promulgated by the Texas Commission on Environmental Quality, or any successor agency, the Houston Plumbing Code, and the policy of requirements of the Utility Official regarding backflow prevention and cross connections. Should a condition in violation of these requirements be discovered, the Authority shall promptly cure same.
- 6.5 No Additional Waiver Implied. The failure of either party hereto to insist, in any one or more instances, upon performance of any of the terms, covenants or conditions of this Third Supplement, shall not be construed as a waiver or relinquishment of the future performance of any such term, covenant or condition by the other party hereto, but the obligation of such other party with respect to such future performance shall continue in full force and effect.

- 6.6 Merger and Conflicts. This instrument contains all the agreements made between the parties with regard to Segment 1, the Segment 1 Project, and the Segment 1 Capacity. This Third Supplement merges the prior negotiations and understandings of the parties and embodies the entire agreement of the parties in relation to Segment 1, the Segment 1 Project, and the Segment 1 Capacity. No other agreements, assurances, conditions, covenants (express or implied), or other terms of any kind, exist between the parties regarding Segment 1, the Segment 1 Project, and the Segment 1 Capacity contemplated in this Third Supplement. This Third Supplement shall control over the Water Supply Contract with respect to the matters addressed in this Third Supplement, including, without limitation: (i) the Segment 1 Project and all payments from the Authority related to the same, (ii) the Authority's Segment 1 Reservation and all payments related to the same. Except to the extent inconsistent with this Third Supplement, all terms of the Water Supply Contract remain in full force and effect.
- 6.7 Notices. Until the Authority is otherwise notified in writing by Houston, the address of Houston is and shall remain as follows:

City of Houston  
Utility Official of Public Works and Engineering Department  
P.O. Box 1560  
Houston, Texas 77251-1560

Until Houston is otherwise notified in writing by the Authority, the address of the Authority is and shall remain as follows:

North Harris County Regional Water Authority  
c/o General Manager  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

All written notices, statements and payments required or permitted to be given under this Third Supplement from one party to the other shall be deemed given by the deposit in a United States Postal Service mailbox or receptacle of certified or registered mail, with proper postage affixed thereto, addressed to the respective other party at the address set forth above or at such other address as the parties respectively shall designate by written notice.

- 6.8 Authorship. The parties agree that this Third Supplement shall not be construed in favor of or against either party on the basis that the party did or did not author this Third Supplement.
- 6.9 Parties in Interest. This Third Supplement shall be for the sole and exclusive benefit of the parties hereto and shall not be construed to confer any rights upon any third party. Houston shall never be subject to any liability in damages to any customer of the Authority for any failure to perform under this Third Supplement.
- 6.10 Captions. The captions appearing at the first of each numbered Section in this Third Supplement are inserted and included solely for convenience and shall never be considered or given any effect in construing this Third Supplement, or any provisions hereof, or in connection with the duties, obligations, or liabilities of the respective parties hereto or in ascertaining intent, if any questions of intent should arise.
- 6.11 Enforcement. The City Attorney or his or her designee shall have the right to enforce all of Houston's legal rights and obligations under this Third Supplement without further authorization.
- 6.12 Approvals. Unless otherwise provided for herein, any consent or approval of the parties shall be made by the governing body of each party.
- 6.13 Time of Essence; Force Majeure. Time is of the essence with respect to performance of all obligations set forth in this Third Supplement. The Force Majeure provisions of the Original Contract apply to this Third Supplement; provided, however, Force Majeure does not excuse a failure to timely satisfy Engineering Payment or Construction Payment obligations.
- 6.14 Default and Remedies. Default shall occur only in the event either party fails to adhere to its respective obligations hereunder. In such event, the non-defaulting party shall give the defaulting party: (i) written notice describing such default and the necessary cure therefor; and (ii) the opportunity to cure such default or provide an acceptable plan to cure the default within no less than thirty (30) days of receipt of such notice. If the default is cured within the specified time period to the satisfaction of the non-defaulting party, then no further action shall be taken by the non-defaulting party. If the default is not cured or an acceptable plan to cure the default is not submitted within the specified time period to the satisfaction of the non-defaulting party, the non-defaulting party may pursue any available remedies existing at law or in equity. This Section shall

not be considered as specifying the exclusive remedy or procedure for remedy for any default, and all remedies existing at law and in equity are to be available to either party; provided, however, that the parties may submit their dispute in good faith to non-binding mediation, the costs of which will be shared equally by the parties, prior to either party filing suit for any default under this Third Supplement.

- 6.15 Severability. The provisions of this Third Supplement are severable, and if any provision or part of this Third Supplement or the application thereof to any person or circumstance shall ever be held by any court of competent jurisdiction to be invalid or unconstitutional for any reason, the remainder of this Third Supplement and the application of such provision or part of this Third Supplement to other persons or circumstances shall not be affected thereby.
- 6.16 Goods and Services. Houston and the Authority expressly acknowledge and agree that this Third Supplement constitutes a contract by which each party is providing goods and/or services to the other party and that this Third Supplement is subject to the provisions of Subchapter I, Chapter 271, of the Texas Local Government Code.
- 6.17 Written Amendment. Unless otherwise specified elsewhere in this Third Supplement, this Third Supplement may be amended only by written instrument executed by the governing bodies of Houston and the Authority.
- 6.18 Exhibits. Exhibits "A" through "E" attached to this Third Supplement are hereby incorporated herein for all purposes.
- 6.19 Rates. Houston and the Authority each represent and certify that it will have on hand and lawfully available sufficient funds to make its payments due hereunder. Houston and the Authority each recognize its respective duty to, and covenants and agrees that at all times it will, establish, maintain, and from time to time adjust, the rates, fees, and charges for the services it provides to its customers in order to generate revenue therefrom, together with funds received from any other lawful source, sufficient to fund its obligations under this Third Supplement.

[EXECUTION PAGES FOLLOW]

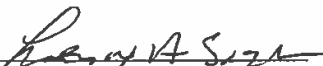


IN WITNESS WHEREOF, the parties hereto have executed this Third Supplement in multiple copies, each of which shall be deemed to be an original, effective on the date of countersignature indicated below.

**NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY**

By:   
Alan J. Rendl, President

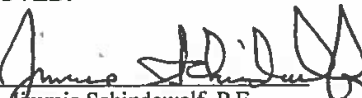
**ATTEST:**

By:   
Lenox A. Sigler, Secretary

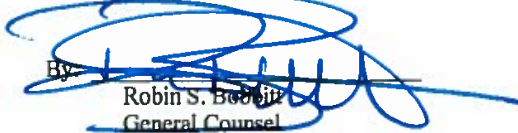
**DATE APPROVED:**

10-26-2015

**APPROVED:**

By:   
Jimmie Schindewolf, P.E.  
General Manager

**APPROVE AS TO FORM:**

By:   
Robin S. Bobbit  
General Counsel

(AUTHORITY SEAL)



CITY OF HOUSTON, TEXAS

*Annise D. Parker*

Annise D. Parker  
Mayor

*Ammonda Washford*

ATTEST/SEAL:

*Anna Russell*

Anna Russell  
City Secretary

DATE COUNTERSIGNED:

11-10-15  
("Effective Date")

APPROVED:

*Dale A. Rudick*

Director, \_\_\_\_\_  
Department

*my*

APPROVED AS TO FORM:

*By: Cybell*

Assistant City Attorney  
L.D. File No. 0631300352001

COUNTERSIGNED BY:

*Ronald C. Green*

Ronald C. Green *Jennal Polk*  
City Controller



**Exhibit A Participation Table**

**Segment 1: Subsegment A (120-inch Line)**

<b>Participant</b>	<b>MGD Capacity</b>	<b>Percent</b>
NHCRWA	113.00 MGD	35.313%
CHCRWA	4.88 MGD	1.525%
WHCRWA	82.42 MGD	25.756%
NFBWA	68.50 MGD	21.406%
City of Houston	51.20 MGD	16.000 %
<b>Total =</b>	<b>320.00 MGD</b>	<b>100.00%</b>

**Segment 1: Subsegment B (96-inch line)**

<b>Participant</b>	<b>MGD Capacity</b>	<b>Percent</b>
NHCRWA	0 MGD	0%
CHCRWA	0 MGD	0%
WHCRWA	82.42 MGD	54.61%
NFBWA	68.50 MGD	45.39%
City of Houston	0 MGD	0 %
<b>Total =</b>	<b>150.92 MGD</b>	<b>100.00%</b>

EXHIBIT B  
NETL PROJECT BUDGET - SEGMENT 1

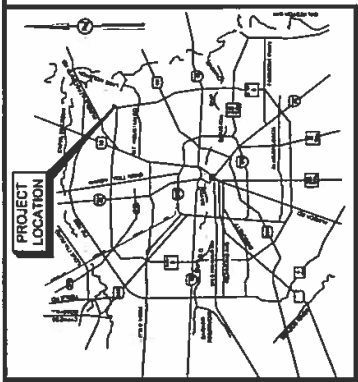
WBS	Segment	Project Name/Project Item	Appropriation from Inception to 10/31/2015	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	TOTAL
S-000000-0114		Pre-Engineering / Feasibility for NETL	23,313	0	0	0	0	0	0	0	0	0	0	23,313
		Engineering	22,187											
		Construction												
		Cost Recovery	3,328											
S-000000-0121		SWTP Contract	111,847	0	0	0	0	0	0	0	0	0	0	111,847
		Engineering	85,000											
		Construction												
		Cost Recovery	26,847											
S-000000-0174	Sub Segment A	120" Transmission Line	1,545,194	1,545,194	0	0	8,508,315	0	0	0	0	0	0	10,053,417
		Engineering	0	1,236,083			7,216,481							
		Construction	0	133,609			1,291,934							
		Site Costs	0	165,912			137,343							
		Cost Recovery	0	0			491,778							
		Contingency	0	0			0							
S-000000-0174	Sub Segment B	84-Inch Sub	287,438	287,438	0	0	1,546,161	0	0	0	0	0	0	1,833,599
		Engineering	220,950	220,950			1,341,375							
		Construction	0	22,895			127,760							
		Site Costs	0	34,853			25,558							
		Cost Recovery	0	0			91,468							
		Inflation**	0	0			0							
		Total	1,832,632	1,832,632	0	0	10,599,476	0	0	0	0	0	0	12,432,216

NOTES

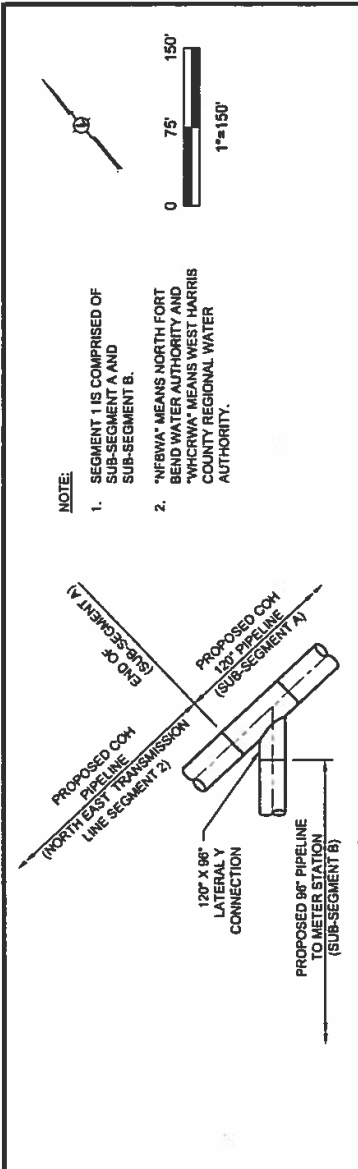
- \* Cost Recovery Amounts for Engineering & Construction are reflected as separate line item
- \*\* Inflation amounts for all Project Items are reflected as a separate line item

NETL PROJECT BUDGET (Pro Rata Shares)- SEGMENT 1

WBS	Participant	Pro Rata Share(Exhibit A)	Appropriation from Inception to 10/31/2016	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	TOTAL
S-000000-014	NHCRWA	35.313%	\$ 48,450	\$ 545,622	\$ -	\$ -	\$ -	\$ 3,010,898	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,010,898
S-000000-021	CHCRWA	1.525%	\$ 2,093	\$ 23,563	\$ -	\$ -	\$ -	\$ 130,076	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 155,681
S-000000-074	WHCRWA	25.756%	\$ 35,338	\$ 397,957	\$ -	\$ -	\$ -	\$ 2,196,038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,629,332
	NFRWA	21.406%	\$ 29,369	\$ 330,745	\$ -	\$ -	\$ -	\$ 1,825,143	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,185,257
	City of Houston	16.000%	\$ 21,952	\$ 247,217	\$ -	\$ -	\$ -	\$ 1,364,210	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,633,379
		100.000%	\$ 137,202	\$ 1,545,104	\$ -	\$ -	\$ -	\$ 8,526,315	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,208,670
S-000000-074	WHCRWA	54.610%	\$ -	\$ 156,970	\$ -	\$ -	\$ -	\$ 866,203	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,033,172
	NFRWA	45.390%	\$ -	\$ 130,458	\$ -	\$ -	\$ -	\$ 719,959	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 850,426
		100.000%	\$ -	\$ 287,438	\$ -	\$ -	\$ -	\$ 1,586,161	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,873,599
			\$ 137,202	\$ 1,832,541	\$ -	\$ -	\$ -	\$ 10,112,476	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,082,218

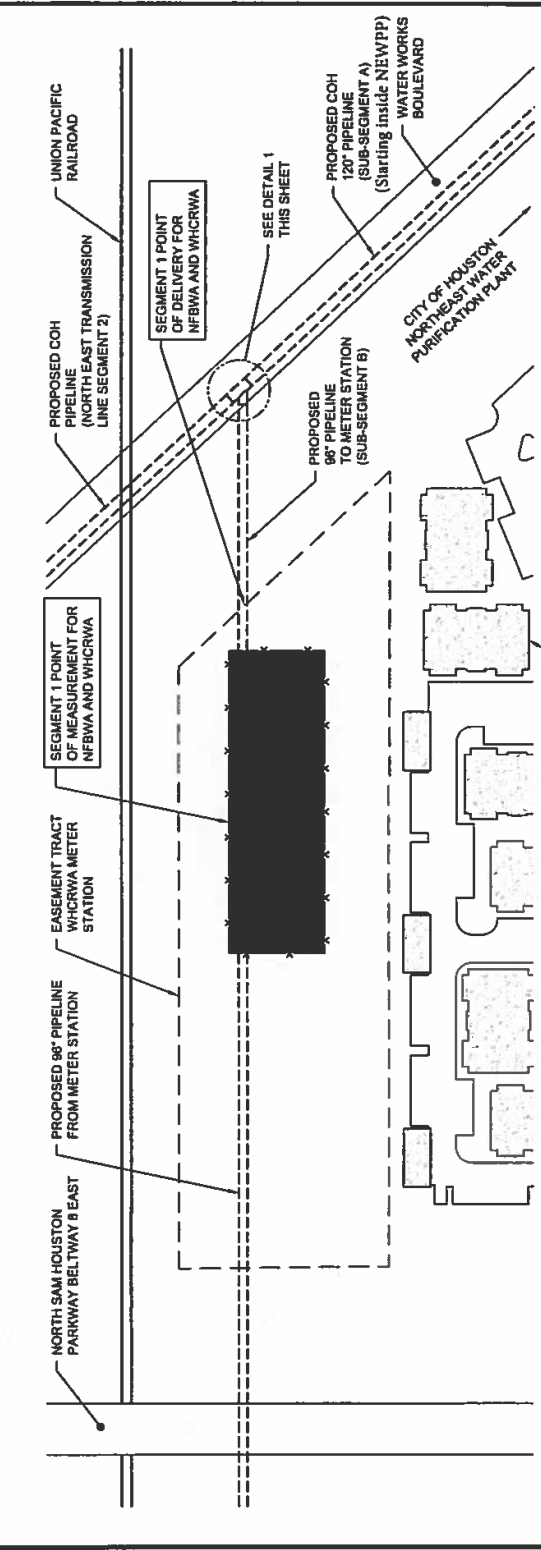


LOCATION MAP



1 CONNECTION DETAIL  
SCALE: 1"=50'

- NOTE:**
1. SEGMENT 1 IS COMPRISED OF SUB-SEGMENT A AND SUB-SEGMENT B.
  2. "NFBWA" MEANS NORTH FORT BELLD WATER AUTHORITY AND "WHICRWA" MEANS WEST HARRIS COUNTY REGIONAL WATER AUTHORITY.



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T.B.P.E. FIRM REGISTRATION #392  
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**EXHIBIT C**

This exhibit includes a conceptual graphical representation of Segment 1 and does not reflect a designed or approved transmission line. The actual location south of the northern boundary of Water Works Boulevard and east of the Union Pacific Railroad right-of-way will be determined upon completion of surveying, subsurface utility engineering and recommendation of the engineer of record.

**EXHIBIT D  
NETL SCHEDULE - SEGMENT 1**

WBS	Segment	Project Name/Project Item	ENGINEERING DESIGN			CONSTRUCTION		
			Council Approval	Contract End	Contract End	Council Approval	Contract End	
S-000900-0114		Pre-Engineering / Feasibility for NETL	Approved	3rd Quarter - Calendar Year 2020		Not Applicable	Not Applicable	
S-000900-0121		SWTP Contract	Approved	3rd Quarter - Calendar Year 2020		Not Applicable	Not Applicable	
S-000900-0174	Sub Segment A	120" Transmission Line	1st Quarter - Calendar Year 2016	3rd Quarter - Calendar Year 2020	3rd Quarter - Calendar Year 2017	3rd Quarter - Calendar Year 2020		
S-000900-0174	Sub Segment B	96-inch Stub	1st Quarter - Calendar Year 2016	3rd Quarter - Calendar Year 2020	3rd Quarter - Calendar Year 2017	3rd Quarter - Calendar Year 2020		

**EXHIBIT E**

**NETL PROJECT COST APPROPRIATED BEFORE NOVEMBER 1, 2015 – SEGMENT 1**

<b>Cost by Category</b>	<b>Appropriation<sup>1</sup> from Inception to 10/31/2015</b>
Engineering (excluding Cost Recovery Amounts)	\$ 107,187
Construction	\$ 0
Construction Contingency	\$ 0
Cost Recovery Amounts	\$ 30,015
Real Estate	\$ 0
<b>TOTAL</b>	<b>\$ 137,202</b>
<b>Pro Rata Share<sup>2</sup> of Total</b>	
NHCRWA	\$ 48,450
CHCRWA	\$ 2,093
WHCRWA	\$ 35,338
NFBWA	\$ 29,369
City of Houston	\$ 21,952
<b>TOTAL</b>	<b>\$ 137,202</b>

**NOTES**

1. There was no appropriation on Sub-Segment B Project as of 11/1/2015
2. Pro Rata Shares based on Participation Table (Exhibit A)





C.76508  
2015-1077

**FOURTH SUPPLEMENT TO WATER SUPPLY CONTRACT  
BETWEEN THE CITY OF HOUSTON, TEXAS AND THE NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY**

**FOR THE NORTHEAST TRANSMISSION LINE—SEGMENT 2**

THIS FOURTH SUPPLEMENT TO WATER SUPPLY CONTRACT BETWEEN THE CITY OF HOUSTON, TEXAS AND THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY FOR THE NORTHEAST TRANSMISSION LINE—SEGMENT 2 (this "Fourth Supplement") is made by and between the CITY OF HOUSTON, TEXAS ("Houston") and the NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY (the "Authority") for the purpose of providing for the construction of an additional large-diameter water transmission line from Houston's Northeast Water Purification Plant to the Authority's transmission and distribution system. This Fourth Supplement is effective on the date of countersignature hereof by the Houston Controller ("Effective Date"). For and in consideration of the premises and mutual covenants and agreements contained herein, the parties hereto to mutually agree as follows:

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**ARTICLE I.**  
**RECITALS**

- 1.1 Houston is a home-rule municipality, principally located in Harris County, Texas. Houston owns a water treatment and distribution system. Houston and the Authority, as well as the West Harris County Regional Water Authority, the North Fort Bend Water Authority, and Central Harris County Regional Water Authority (collectively, the "Other Authorities"), plan to construct a transmission line from Houston's Northeast Water Purification Plant located at 12121 North Sam Houston Parkway East, Humble, Texas 77396 ("NEWPP"). The transmission line will consist of two (2) segments, one (1) 120-inch segment running west from inside the NEWPP to a point where it connects to a 96-inch line running southwest approximately 200 feet to the property line of a meter station site owned by the West Harris County Regional Water Authority, as generally shown and labeled as Segment 1 on *Exhibit "C"* ("Segment 1"), and a second (2<sup>nd</sup>) segment of water line of a size to be determined in the future from the end of Segment 1, generally following the public rights-of-way and future easements along Beltway 8 to the west side of Interstate 45 to a point depicted on *Exhibit "C"* attached hereto ("Segment 2").
- 1.2 The Authority is a Texas conservation and reclamation district organized and operating under the provisions of House Bill No. 2965, Seventy-Sixth Legislature, as amended, and the Texas Water Code, as amended.
- 1.3 The Authority has entered into Contract No. 54614, dated December 16, 2002 (the "Original Contract"), with Houston for the purchase by the Authority of treated surface water from the NEWPP.
- 1.4 Houston and the Authority executed a First Supplement to Water Supply Contract ("First Supplement") to provide for the cost sharing, permitting, engineering, surveying, construction, and right-of-way and site acquisition necessary for the Luce Bayou Interbasin Transfer Project ("Luce Bayou") to convey untreated water from the Trinity River to Lake Houston, which Houston approved pursuant to Ordinance 2009-0052 (January 28, 2009).
- 1.5 Houston and the Authority executed a First Amendment to the First Supplement ("First Amendment") in order to clarify certain funding for Luce Bayou, which Houston approved pursuant to Ordinance 2013-0044 (January 22, 2013).

- 1.6 Houston and the Authority executed a Second Supplement to Water Supply Contract ("Second Supplement") in order to provide for the cost sharing, permitting, engineering, surveying, construction, and right-of-way and site acquisition (if any) necessary for a 320 MGD expansion of the NEWPP, which Houston approved pursuant to Ordinance 2015-0139 (February 25, 2015). The Original Contract, First Supplement, First Amendment and Second Supplement are referred to herein, collectively, the "Water Supply Contract."
- 1.7 Houston and the Authority intend to execute a contract contemporaneously with the execution of this Fourth Supplement, to provide for the cost sharing, permitting, engineering, surveying and construction necessary for Segment 1 ("Third Supplement").
- 1.8 Houston has executed contracts with each of the Other Authorities that are substantially similar to the Water Supply Contract and intends to execute contracts with each of the Other Authorities that are substantially similar to the Third Supplement. Houston also intends to execute a contract with the Central Authority that is substantially similar to this Fourth Supplement.
- 1.9 Houston has commenced acquisition of the rights-of-way, sites and easements necessary for Segment 2, and shall complete acquisition of all such rights-of-way, sites and easements in sufficient time to proceed with the construction and operation of Segment 2.
- 1.10 Houston has commenced engineering work for Segment 2, and hereby represents that such engineering work for the Segment 2 will be completed in a good and workmanlike manner and in accordance with all applicable rules, regulations and requirements of all applicable governmental entities having jurisdiction over the design, construction or operation of Segment 2. Contingent upon the Authority and the Central Authority timely satisfying their obligations to make payments to Houston under this Fourth Supplement, Houston and the Authority intend for Houston to cause the Segment 2 Project to be substantially complete not later than August 31, 2021.
- 1.11 The Authority desires to participate with Houston in the Segment 2 Project (as defined below) in order to convey to the Segment 2 Point(s) of Delivery the treated surface water the Authority has contracted to receive pursuant to the Water Supply Contract.

- 1.12 Houston and the Authority desire to participate in this Fourth Supplement to clarify and agree to the terms for the cost sharing, permitting, engineering, surveying, construction, and right-of-way and site acquisition operation, and maintenance necessary for Segment 2 and to amend the definitions of certain terms in the Water Supply Contract to include the facilities being constructed by the Segment 2 Project.
- 1.13 Houston is authorized to enter into this Fourth Supplement pursuant to its Home Rule Charter and Section 49.068 of the Texas Water Code.
- 1.14 The Authority is authorized to enter into this Fourth Supplement pursuant to Section 49.068 of the Texas Water Code.

## **ARTICLE II DEFINITIONS**

Unless the context requires otherwise, capitalized terms in this Fourth Supplement shall have the meaning provided in the Water Supply Contract. In addition, unless the context requires otherwise, the following terms used in this Fourth Supplement shall have meanings provided below. In the event of a conflict between the definition of a term provided in the Water Supply Contract and that provided in this Fourth Supplement, the definition in this Fourth Supplement shall control for purposes of this Fourth Supplement.

- 2.1 "AUP Report" means a report and associated findings obtained by Houston to review the accounting for and allocation to the parties of Project Costs which is produced by an independent accounting firm engaged by Houston under an agreed-upon procedures engagement conducted in accordance with (i) Sections 4.10 or 4.11 of this Fourth Supplement, and (ii) the Statements on Standards for Attestation Engagements published by the American Institute of Certified Public Accountants.
- 2.2 "Authorized Investments" means investment pool(s): (i) that comply with the requirements of Houston's investment policy and Texas Government Code Chapter 2256, and (ii) in which Houston's funds (in addition to funds from the Authority) may be invested.

- 2.3 "Authority Representative" shall mean the Authority's General Manager, or an alternative individual approved by the General Manager, which individual may be changed from time to time.
- 2.4 "Authority's Segment 2 Reservation" is 113 MGD, as reflected on *Exhibit "A"* (Participation Table) and constitutes the Authority's Treated Water Facilities Demand Allocation in Segment 2.
- 2.5 "Central Authority" shall mean the Central Harris County Regional Water Authority and any successor entity thereto.
- 2.6 "Completion Date" shall mean the date by which all Sub-Segments must be substantially complete, which is August 31, 2021, or such other date on which the Utility Official and the Authority Representative may agree in writing, subject to (i) the Authority's timely compliance with its obligations to pay as provided in this Fourth Supplement, (ii) the Other Authorities' timely compliance with their obligations to pay as provided in agreements that are substantially similar to this Fourth Supplement, and (iii) Houston's customary terms and provisions within its construction contracts regarding extension of time.
- 2.7 "Construction Contractor" shall mean a contractor with which Houston contracts for the construction of a Sub-Segment.
- 2.8 "Construction Costs" shall mean the costs associated with the construction of the Segment 2 Project, including all reasonable costs for labor, equipment, materials, and related Cost Recovery Amounts.
- 2.9 "Construction Sub-Segment Payment" means the Authority's Pro Rata Share of Construction Costs and Contingencies for a specific Sub-Segment.
- 2.10 "Contingencies" shall mean an allowance to fund unforeseen changes in or additions to the work that is the subject of a contract or proposed contract with a Construction Contractor.
- 2.11 "Contingencies Fund" shall mean a sub-account within the Project Account that shall contain all funding for Contingencies which may arise during the Segment 2 Project.

- 2.12 "Contingencies Ratio" shall mean the quotient of (a) the then-current balance of the Contingencies Fund; divided by (b) the total of all Construction Costs reflected in the then-current Project Budget for (i) contracts with a Construction Contractor that are not then substantially complete, and (ii) such contracts for which the Authority Representative has received documents in accordance with Section 3.6. (Construction Contracts).
- 2.13 "Cost Recovery Amounts" means the portion of the costs of Houston's employees' salaries, associated benefits, overhead, and itemized costs paid from the cost recovery fund (Houston's Fund 1001), that are allocated and attributable to the Segment 1 Project for the period beginning on July 1, 2015, and concluding as of the date of final completion of the Segment 2 Project and shall be calculated in the same manner as provided in Section 3.13 of the Second Supplement.
- 2.14 "Effective Date" shall mean the date on which the Houston Controller countersigns this Fourth Supplement.
- 2.15 "Engineering Costs" shall mean the costs for engineering work associated with the Segment 2 Project, including all reasonable costs for the planning, management, oversight, inspection, basis of design, engineering design, geotechnical investigations, surveys, estimates, materials testing, plans, specifications, investigations, related Cost Recovery Amounts, necessary permitting, and regulatory review/approval.
- 2.16 "Engineering Sub-Segment Payment" shall mean the Authority's Pro Rata Share of the Engineering Costs necessary for Houston to fund such costs for a particular Sub-Segment.
- 2.17 "First Amendment" shall have the meaning given in Section 1.5 above.
- 2.18 "First Supplement" shall have the meaning given in Section 1.4 above.
- 2.19 "Fiscal Year" shall mean Houston's fiscal year, as determined from time to time by Houston, which currently expires on June 30<sup>th</sup> of each calendar year.
- 2.20 "MGD" shall mean million(s) of gallons per day of Water.
- 2.21 "NEWPP" shall have the meaning given in Section 1.1 above.



- 2.22 "Original Contract" shall have the meaning given in Section 1.3 above.
- 2.23 "Other Authorities" shall have the meaning given in Section 1.1.
- 2.24 "Pro Rata Share" shall mean the proportion of the Segment 2 Capacity allocable to each party stated as a percentage, as specifically set forth on *Exhibit "A"* hereto.
- 2.25 "Project Account" shall mean a segregated fund established and controlled by Houston for the receipt and disbursement of the funds of the Authority and the Central Authority, and used by Houston to pay the Authority's and Central Authority's respective Pro Rata Shares of Project Costs, as set forth herein.
- 2.26 "Project Budget" shall mean the chart attached as *Exhibit "B"*, which (a) reflects the estimated Project Costs for each Sub-Segment, including any Project Costs funded pursuant to Section 4.3 (Previously Appropriated Project Costs), and (b) will be updated in accordance with this Fourth Supplement to reflect the updated estimated and actual Project Costs.
- 2.27 "Project Costs" shall mean Real Estate Costs, Engineering Costs, Construction Costs, and Contingencies, except any of such costs which are incurred exclusively for the benefit of one party and with that party's prior written approval.
- 2.28 "Real Estate Costs" shall mean the cost of acquisition of interests in land, title documents and services, legal costs, including court costs and fees, and other related charges required to secure the easements, rights of way, and other property interests necessary and/or desirable to construct Segment 2.
- 2.29 "Real Estate Fund" shall have the meaning given in Section 4.2.1 below.
- 2.30 "Schedule" shall mean the chart attached hereto as *Exhibit "D"* which reflects the currently estimated timing of work items necessary to complete the Segment 2 Project.
- 2.31 "Second Supplement" shall have the meaning given in Section 1.6 above.

- 2.32 "Segment 1" shall have the meaning given in Section 1.1.
- 2.33 "Segment 2" shall have the meaning given in Section 1.1.
- 2.34 "Segment 2 Capacity" shall mean the Water transmission capacity of Segment 2, as reflected in *Exhibit "A."*
- 2.35 "Segment 2 Point(s) of Delivery" shall mean the output flange(s) on or the welded joint to the connection on Segment 2 that will serve the Authority under the provisions of the Water Supply Contract, as more particularly identified and described on *Exhibit "C"* attached hereto and incorporated herein for all purposes, or such other location(s) on which the Utility Official and the Authority Representative may agree in writing.
- 2.36 "Segment 2 Point(s) of Measurement" shall mean the location of the meter at which Houston shall measure the Authority's consumption of Water from Segment 2, as more particularly described on *Exhibit "C"* attached hereto; provided, however, that the Segment 2 Point(s) of Measurement may be at different locations than the Segment 2 Point(s) of Delivery, or at such other location(s) on which the Utility Official and the Authority Representative may agree in writing.
- 2.37 "Segment 2 Project" shall mean the project for design, property acquisition, and construction of Segment 2.
- 2.38 "Segment 2 Project Parties" shall mean, collectively, Houston, the Authority and the Central Authority. "Segment 2 Project Party" shall mean one (1) of the Segment 2 Project Parties.
- 2.39 "Sub-Segment" means one of the twelve (12) discrete portions of the Segment 2 Project depicted in *Exhibit "C,"* as such discrete portions may be altered as agreed upon in writing by the Utility Official and the Authority Representative from time-to-time during the Segment 2 Project.
- 2.40 "Sub-Segment AUP Report" shall mean the AUP Report prepared to review the accounting for and allocation to the parties of the Project Costs for a specific Sub-Segment.
- 2.41 "True-up" shall have the meaning assigned in Section 4.10.2 below.

- 2.42 "Utility Official" shall mean the Director of the Department of Public Works and Engineering of Houston, or any other person who may hereafter exercise the functions of said Director under the applicable Ordinances of Houston.
- 2.43 "Water" shall mean potable treated surface water from the Houston System.
- 2.44 "Water Supply Contract" shall have the meaning given in Section 1.8 above.

**ARTICLE III**  
**DESIGN AND CONSTRUCTION OF SEGMENT 2**

- 3.1 Engineering & Construction by Houston.
- 3.1.1 Houston shall consider the Authority as a major participant with Houston in Segment 2 and as such shall afford the Authority all reasonable opportunities to participate in the major decisions concerning the Segment 2 Project. To that end, the Authority Representative shall be invited to attend all design scoping, design consideration, pre-bid, pre-construction, and progress meetings held in connection with the Segment 2 Project.
- 3.1.2 Subject to the Authority providing funding for its Pro-Rata Share of Project Costs as provided herein, Houston shall be responsible for the permitting, engineering, surveying, construction, right-of-way and site acquisition, operation, and maintenance necessary for Segment 2 such that Segment 2 is capable of delivering the Segment 2 Reservation to the Segment 2 Point(s) of Delivery.
- 3.1.3 Houston shall cause Segment 2 to be designed in a manner capable of delivering the Authority's Segment 2 Reservation to each of the Segment 2 Point(s) of Delivery at a pressure, measured in pounds per square inch ("PSI"), in accordance with the Texas Commission on Environmental Quality standards for municipal treated water systems.
- 3.1.4 Within 45 days of Effective Date, the Utility Official shall cause an engineering report for the Segment 2 Project, which shall be signed and sealed by a licensed professional engineer, to be completed and provided to the Authority Representative. Such report

shall include, but may not be limited to, the following: (i) the results of all modeling performed for Segment 2, including the assumed system parameters used to complete all such modeling, the resultant system pressure at the Segment 2 Point(s) of Delivery, and the modeling performed to assess potential water quality concerns during Segment 2 operation; (ii) recommendation regarding the necessity of additional disinfection facilities along Segment 2, and the cost of constructing same if so recommended; (iii) an overall review of the Project concept, including without limitation the size of the Segment 2 pipeline, impact of various allocations of water delivery among the Segment 2 Point(s) of Delivery, and water quality solutions, all based on the results of the findings and analysis from items (i) and (ii) above; and (iv) any other items agreed upon by the Utility Official and the Authority Representative. If during preparation or upon receipt of the above-referenced engineering report the Authority Representative requests in writing a supplemental engineering report and includes in such request its desired scope for such report, the Utility Official and the Authority Representative shall agree to an additional scope of work for the supplemental engineering report and the Utility Official shall obtain such report within a reasonable time thereafter.

3.1.5 To the extent that the Houston is not required to appropriate additional funds, the Utility Official and the Authority Representative may agree in writing to modify the size and/or scope of the Segment 2 Project or the Authority's Segment 2 Reservation. In the event of such an agreement, the Utility Official and the Authority Representative may also agree in writing to conforming amendments to the Exhibits to this Fourth Supplement.

3.2 Construction of Segment 2. Segment 2 shall be constructed pursuant to one (1) or more construction contracts to be entered into by Houston at such time as it is determined reasonably necessary by Houston to achieve completion of the Segment 2 Project on or before the Completion Date, and to meet the Schedule attached hereto as *Exhibit "D"* (Schedule). The Utility Official has provided estimates of the Real Estate Costs, Engineering Costs, Construction Costs, and Contingencies for the Segment 2 Project, as well as the manner of calculation of such costs and the Segment 2 Project Parties' respective Pro Rata Shares of such costs, all as more specifically set forth on *Exhibit "B"* (Project Budget). The Utility Official shall cause an updated Project Budget to be regularly prepared and promptly provided to the Authority Representative throughout the Segment 2 Project. However, such updates to the Project Budget shall not constitute an amendment to *Exhibit "B"* hereto.

3.3 Allocation of Segment 2 Capacity and Project Costs. The Segment 2 Capacity is based on certain assumptions including, but not limited to, the Authority's Segment 2 Reservation, as provided in *Exhibit "A"* (Participation Table).

3.3.1 The Authority's Pro Rata Share of Segment 2 Capacity shall be determined by the following formula:

$$C = B/A$$

Where: "A" is the Segment 2 Capacity for the Sub-Segment.

"B" is the Authority's Segment 2 Reservation for the Sub-Segment.

"C" is the Authority's Pro Rata Share of Segment 2 Capacity for the Sub-Segment.

3.3.2 The Authority's Pro Rata Share of Project Costs for each Sub-Segment shall be determined by the following formula:

$$E = C \times D$$

Where: "C" is the Authority's Pro Rata Share of Segment 2 Capacity for the Sub-Segment, as determined in accordance with Section 3.3.1 above.

"D" is the total of Project Costs for the Sub-Segment.

"E" is the Authority's Pro Rata Share of Project Costs for the Sub-Segment.

3.3.3 Throughout the Segment 2 Project, Houston shall separately track all costs for each Sub-Segment so that the Project Costs for each Sub-Segment can be accurately determined.

3.4 Real Estate Acquisition. Houston shall be responsible for the acquisition of all rights-of-way, sites, and easements necessary or desirable for the construction, operation, and maintenance of Segment 2. If necessary, Houston shall condemn any land required for rights-of-way, sites and easements for the Segment 2 Project.

- 3.5 Design Responsibility and Engineering Costs. In accordance with applicable law, Houston shall engage an engineering firm to design each Sub-Segment. Upon procuring the services of such a firm, Houston shall provide the Authority with notice of Houston's intent to engage such firm, which notice shall include the total amount of Engineering Costs Houston shall pay under the engagement for each Sub-Segment, the amount of such costs applicable to any Engineering Sub-Segment Payment and Construction Sub-Segment Payment, respectively, and the Authority's Pro Rata Shares of each of same. Except as may otherwise be agreed upon by the Utility Official and the Authority Representative, upon completion of the sixty percent (60%), ninety percent (90%) and final plans and specifications for the Segment 2 Project, the Utility Official shall provide the Authority Representative with copies of same, and any addenda or supplements thereto, for review and comment. The Authority Representative's comments (i) shall be provided to the Utility Official within fifteen (15) days of receipt by the Authority Representative, and (ii) shall not be disclosed by Houston unless such disclosure is required pursuant to the Texas Public Information Act. The Authority, contemporaneous with providing written comments, if any, to Houston pursuant to this subsection, shall provide a copy of same to the Central Authority. Any written comments the Authority receives from the Central Authority shall not be disclosed by the Authority unless required to do so pursuant to the Texas Public Information Act. Upon request by the Authority, the Utility Official shall schedule a meeting with the Authority Representative and other attendees as may be invited by the Authority Representative in order to review and discuss such comments. After such meeting, the Utility Official shall cause the Authority's comments to be integrated and included on such plans and specifications where such integration and inclusion are practical, as reasonably determined by the Utility Official.
- 3.6 Construction Contracts. Subject to the conditions described below and procurement in accordance with applicable law, Houston shall enter a contract with a Construction Contractor for the construction of each Sub-Segment.
- 3.6.1 Prior to providing any such construction contract or any addenda or supplements thereto to a prospective Construction Contractor, Houston shall provide a draft of same to the Authority Representative for review and comment. At the same time Houston sends the Authority Representative a construction contract, Houston shall also send to the Authority the following information: (a) a detailed breakdown of the estimated Project Costs included in such construction contract; (b) the Pro-Rata Share of same to be paid by each of the Segment 2 Project Parties; (c) the then current balance of the Project

Account and the allocation of such balance to each Segment 2 Project Party; and (d) the then-current balance of the Contingencies Fund, the allocation of such balance to each Segment 2 Project Party and the calculation of the then-current Contingencies Ratio including the estimated Project Costs resulting from such construction contract (collectively referred to in this Section as the "Supplementary Information").

3.6.2 With regard to a construction contract and the Supplementary Information, the Authority Representative shall provide any comments to the Utility Official within fifteen (15) days after the Authority Representative's receipt of same. With regard to any addenda or supplements to a construction contract, the Authority Representative shall provide written comments, if any, within five (5) business days after receipt of same. Additional time for review may be granted by Houston to the Authority, upon request, if such additional time will not adversely affect the construction schedule of any Sub-Segment. Upon request by the Authority, the Utility Official shall schedule a meeting with the Authority Representative in order to review and discuss any such comments. The Utility Official shall reasonably consider all such comments provided by the Authority Representative and, in his or her reasonable discretion, integrate and address such comments in the construction contract, addendum or supplement, as applicable, where practical. Houston shall not disclose any written comments provided by the Authority pursuant to this subsection unless such disclosure is required by the Texas Public Information Act. The Authority, contemporaneous with providing written comments, if any, to Houston pursuant to this subsection, shall provide a copy of same to the Central Authority. Any written comments the Authority receives from the Central Authority shall not be disclosed by the Authority unless required to do so pursuant to the Texas Public Information Act.

3.6.3 The Utility Official may, in his or her reasonable discretion, include in any construction contract for a Sub-Segment work items to be performed for the benefit of less than all of the Segment 2 Project Parties, but such items are not part of the Segment 2 Project and the costs related to same are not Project Costs ("Non-Project Items"). If Houston includes any Non-Project Items in a construction contract at the written request and for the benefit of the Authority, the Authority shall be obligated to pay for its share of the costs of same in proportion to the Authority's benefit resulting therefrom and in accordance with this Fourth Supplement as though such costs were Project Costs. If any

Non-Project Items are included in a construction contract and the Authority did not request such items in writing, Houston shall provide written notice to the Authority of its intent to include the Non-Project Items in a construction contract and the estimated costs of same, and the Authority shall not be obligated to pay for any costs related to same. Houston shall list any Non-Project Items as separate line items in the bid documents for the construction contract in which such items are included. In addition, Houston shall be responsible for sending invoicing for and executing work on Non-Project Items as if they were part of the Segment 2 Project.

- 3.6.4 If the contract duration of a construction contract exceeds two (2) years, upon written request from the Authority Representative, Houston will provide the Authority with a licensed professional engineer's certification that the contract will either be substantially complete within three (3) years or that a period of up to five (5) years is necessary to complete the work, as applicable in the professional judgment of such engineer.
- 3.6.5 Houston shall administer the construction contract(s) in accordance with applicable governmental rules and regulations. Houston will monitor the construction for general conformance with the plans and specifications and to ensure that the work is performed in a good and workmanlike manner and generally in accordance with all applicable rules, regulations and requirements of the governmental entities having jurisdiction over the construction of the Segment 2 Project. Houston shall immediately notify the Authority Representative of any significant contract issues or problems which may adversely affect the Segment 2 Project or its scheduled completion date.
- 3.6.6 Houston shall include in each construction contract with a Construction Contractor a requirement that the Construction Contractor achieve substantial completion of the Sub-Segment no later than the Completion Date, provided that Houston may require an earlier completion date. In addition, for such contracts with a projected substantial completion date on or after August 31, 2020, based on the date and duration of the contract, Houston shall also include a paragraph in the construction contract that provides for liquidated damages in the amount of \$50,000 per day in the event of a delay by the Contractor in achieving substantial completion beyond the Completion Date. Notwithstanding the foregoing, at the time of contracting with a Construction Contractor, the Utility Official and the Authority Representative shall review the appropriateness of the aforementioned



amount of liquidated damages and may agree in writing to a different amount to be included in the construction contract for a specific Sub-Segment. In addition, Houston shall include in such contract a paragraph that is substantially similar to the following:

"Contractor acknowledges the City's commitments to the Central Harris County Regional Water Authority and North Harris County Regional Water Authority ("Authorities") under the Fourth Supplements to Water Supply Contract for the Northeast Transmission Line-Segment 2 ("Fourth Supplements") and agrees that the Authorities will suffer damages in the event of a delay by the Contractor in achieving substantial completion beyond the Completion Date provided in such Fourth Supplements. Without limiting anything set forth elsewhere in this construction contract regarding liquidated damages, Contractor acknowledges that the Authorities' damages are an intended factor in the calculation of the amount of the liquidated damages hereunder and agrees that each of the Authorities are singularly and collectively third-party beneficiaries of the Contractor's obligation to pay liquidated damages under this construction contract. Contractor and the City of Houston acknowledge and agree that this paragraph is an express exception to the limitation on third-party rights set forth elsewhere in this construction contract and a material inducement to obtain funding of this construction contract by the Authorities in accordance with their respective Fourth Supplements. However, nothing in this paragraph is intended to provide the Authorities with an independent right of action against the Contractor; it being understood that the City will be responsible for the enforcement of the rights of the Authorities under this paragraph."

The Utility Official and Authority Representative may agree in writing to modifications to this Section.

- 3.7 Change Orders to Construction Contracts. Subject to the conditions contained in this Section, Houston shall draw on the Contingency Fund to pay for any and all change orders to contracts with Construction Contractors. The Utility Official shall submit change orders for any Sub-Segment with a value over five percent (5%) of the original construction contract price for the applicable Sub-Segment to the Authority Representative for review and comment. If the Authority Representative does not make written objections within five (5) business days after

receipt of the change order, Houston may assume the Authority has no comments to such change order; provided, however, that additional time for review and comment may be granted by Houston to the Authority, upon request, if such additional time will not adversely affect the construction schedule of any Sub-Segment. If an objection is made by the Authority, Houston shall reasonably consider same and use good faith efforts to address the objection where practical. Notwithstanding the foregoing, Houston shall not be allowed to approve a change order to a construction contract if the change order allows substantial completion of a Sub-Segment to occur after the Completion Date without the prior written approval of the Authority Representative.

- 3.8 Site Visits and Reports. Upon completion of any Sub-Segment, Houston shall provide the Authority Representative with notice of and an opportunity to participate in any final inspection and/or walk-through of the completed Sub-Segment, including participation in the development of final punch lists and final acceptance of the Sub-Segment.
- 3.9 Ownership and Segment 2 Capacity. Unless otherwise agreed in writing by Houston and the Authority, Houston shall hold legal title to Segment 2; provided, however, that Houston and the Authority shall each have an undivided equitable interest in the use and benefit of Segment 2 Capacity, in accordance with their respective Pro Rata Shares of Segment 2 Capacity.
- 3.10 Books, Records and Data. All books, test data, charges, and other records relating to the rendering of and billing for the Project Costs (collectively, the "Construction Records") shall be preserved by Houston in accordance with Houston's records retention schedules, if any, and otherwise in compliance with all laws and regulations regarding the same, but in no case less than two (2) years following the completion of the applicable Sub-Segment AUP Report.
- 3.10.1 Houston shall make such Construction Records available to the Authority for inspection at Houston's place of business in Harris County, Texas during normal business hours.
- 3.10.2 Houston shall make available to the Authority for review all information, data and records concerning the discharge flow rate and pressures through Segment 2 and all relevant data related to the Houston System located between the NEWPP and the Point(s) of Delivery.

- 3.11 Time of Completion. Houston agrees to proceed with due diligence to construct Segment 2 in order to provide Water to the Authority in accordance with the terms of this Fourth Supplement.

**ARTICLE IV  
PAYMENT OF PROJECT COSTS**

- 4.1 Funds Held in Trust; Limitations on Use. Until funds remitted to Houston by the Authority are expended in accordance with this Fourth Supplement, all payments from the Authority to Houston for the Segment 2 Project shall (i) continue to be funds of the Authority, held by Houston in trust for the benefit of the Authority; (ii) be deposited only into the Project Account; (iii) be invested only in Authorized Investments, with all earnings and interest thereon inuring to the benefit of the Authority; and (iv) be applied only to the Authority's Pro Rata Share of Project Costs.
- 4.2 General Invoice & Payment Requirements. Except as otherwise provided in this Fourth Supplement, this Section applies to all invoices for Project Costs Houston sends to the Authority and the corresponding payments the Authority sends to Houston pursuant to this Fourth Supplement.
- 4.2.1 The Utility Official shall cause invoices for the Authority's Pro Rata Share of Project Costs to be sent to the Authority Representative at the times and in the manner contemplated in Sections 4.4.2–4.4.5 (Real Estate Payments), 4.5 (Engineering Sub-Segment Payments) and 4.6 (Construction Sub-Segment Payments). Houston shall include the following information on any such invoice: (a) a detailed breakdown of the Project Costs included therein; (b) the Pro-Rata Share of same to be paid by each of the Segment 2 Project Parties; (c) the then-current balance of the Project Account and the allocation of such balance to each Segment 2 Project Party; (d) the then-current balance of the Contingencies Fund, the allocation of such balance to each Segment 2 Project Party, and the calculation of the then-current Contingencies Ratio; and (e) if such invoice includes any amounts for Real Estate Costs, the then-current balance of the Real Estate Fund and the allocation of such balance to each Segment 2 Project Party.
- 4.2.2 Unless the Authority Representative objects in writing to such invoice within five (5) business days after receipt of same, Houston may assume the Authority has no comments

on the invoice; provided, however, that additional time for review and comment may be granted by Houston to the Authority, upon request, if such additional time will not adversely affect the construction schedule of any Sub-Segment. If an objection is made by the Authority, Houston shall reasonably consider same and use good faith efforts to address the objection where practical.

4.2.3 Within 45 days of receipt of an invoice or as soon as the Authority is able, using all commercially reasonable efforts, to obtain the Texas Water Development Board's permission to withdraw the necessary funds from escrow, the Authority shall pay to Houston the amount stated in such notice.

4.2.4 Houston acknowledges that (i) the Authority's ability to pay Project Costs is largely dependent on the Texas Water Development Board (the "TWDB") releasing funds from escrow, and (ii) the TWDB will require Houston, as the project sponsor for the Segment 2 Project, to submit information and documents regarding the Segment 2 Project directly to the TWDB as a condition of releasing the Authority's funds as such. As a result, within five (5) days of receiving a written request from the Authority, Houston shall send to the TWDB any information and/or documents necessary according to the TWDB for the TWDB to release the Authority's funds from escrow. If Houston fails to submit information and/or documents to the TWDB within such timeframe, the date by which the Authority must pay invoices from Houston pursuant to Section 4.2.3 above shall be tolled until Houston makes such submittal to the TWDB.

4.3 Previously Appropriated Project Costs. The Segment 2 Project Parties acknowledge that Houston has appropriated funds for Project Costs prior to November 1, 2015. As a pre-condition to entering this Fourth Supplement, the Authority hereby agrees to pay its Pro-Rata Share of such Project Costs appropriated by Houston prior to November 1, 2015, which the Parties hereby agree is \$6,817,194 ("Previously Appropriated Costs"), as stated on *Exhibit "E"*. The Authority agrees to pay Houston \$6,817,194, representing the Authority's Pro Rata Share of such previously appropriated Project Costs, within ninety (90) days of the Effective Date. Subject to verification under the applicable Sub-Segment AUP Report issued under this Fourth Supplement and True-up, the Authority is not responsible for any Project Costs appropriated by Houston prior to November 1, 2015, other than such \$6,817,194, which amount includes Engineering Costs, Real Estate Costs and Cost Recovery Amounts. The Utility Official shall have the authority to draw

funds from the Project Account to reimburse and pay Houston for the Authority's Pro Rata Share of such Previously Appropriated Costs after presentation of invoices for such Previously Appropriated Costs.

4.4 Real Estate Payments. By making the payment described in Section 4.3 (Previously Appropriated Project Costs), the Authority has paid its Pro Rata Share of Real Estate Costs incurred by Houston prior to July 1, 2015.

4.4.1 The City will establish a sub-account within the Project Account that will be used exclusively to fund Real Estate Costs (the "Real Estate Fund"). The Real Estate Fund will have an initial balance of \$500,000 (the "Initial Balance"). Interest earnings from the Real Estate Fund will remain in the Real Estate Fund until such funds are transferred to the Contingencies Fund.

4.4.2 Within 60 days after the Effective Date, the Utility Official shall invoice the Authority in accordance with Section 4.2 (General Invoice & Payment Requirements) for the Authority's Pro Rata Share of (i) Real Estate Costs Houston estimates it will incur from July 1, 2015 to December 31, 2016, and (ii) the Initial Balance.

4.4.3 For Real Estate Costs to be incurred after January 1, 2017 and until all of the necessary rights-of-way, site and easements are acquired for the Segment 2 Project, the Utility Official shall send final invoices in accordance with Section 4.2 (General Invoice & Payment Requirements) to the Authority Representative by August 1 of each year for its estimated Pro Rata Share of Real Estate Costs to be incurred by Houston during the following calendar year, until all of the Project Real Estate is acquired. However, the time by which the Utility Official must provide a final invoice to the Authority Representative may be altered as necessary and agreed upon in writing by the Utility Official and the Authority Representative in order to accommodate the requirements for funding same through the Texas Water Development Board's State Water Implementation Fund for Texas or State Water Implementation Revenue Fund for Texas, as applicable.

4.4.4 Each April, July, October and January during the Segment 2 Project, the Utility Official shall provide the Authority Representative with a written report on Houston's progress

toward acquiring property for the Segment 2 Project and the activity in the Real Estate Fund during the immediately preceding calendar quarter, including (a) the status of acquisition of all parcels and rights of way the City intends to acquire for the Segment 2 Project; (b) a list of the expenditures from the Real Estate Fund for each Sub-Segment; (c) a list of the deposits or appropriations to the Real Estate Fund by each Segment 2 Project Party; and (d) the current balance of the Real Estate Fund and the allocation of such balance to each Segment 2 Project Party (collectively, the "Real Estate Report").

4.4.5 If the Utility Official estimates, in his or her reasonable discretion, that the balance of the Real Estate Fund will fall below the Initial Balance before the end of the then-current calendar year, the Utility Official shall invoice the Authority for its Pro Rata Share of such shortfall according to the provisions of Section 4.2 (General Invoice & Payment Requirements).

4.4.6 After the acquisition of all real estate interests for the Segment 2 Project, the Utility Official shall (a) provide notice to the Authority Representative stating the remaining balance of the Real Estate Fund and the allocation of such balance to each Segment 2 Project Party, and (b) transfer any remaining balance of the Real Estate Fund into the Contingencies Fund.

4.5 Engineering Sub-Segment Payments. After receiving proposals and prior to engaging a design engineer for a Sub-Segment, the Utility Official shall invoice the Authority for the Engineering Sub-Segment Payment for such Sub-Segment in accordance with Section 4.2 (General Invoice & Payment Requirements). Houston shall use an Engineering Sub-Segment Payment solely to pay the Authority's Pro Rata Share of the Engineering Costs for the applicable Sub-Segment. If at any time after the Authority pays the Engineering Sub-Segment Payment, the Utility Official determines, in his or her reasonable discretion, that an Engineering Sub-Segment Payment will be insufficient to fund the Authority's Pro Rata Share of Engineering Costs for the applicable Sub-Segment through final completion of that Sub-Segment, the Utility Official shall invoice the Authority for its Pro Rata Share of such shortfall according to the provisions of Section 4.2 (General Invoice & Payment Requirements).

4.6 Construction Sub-Segment Payments. After receiving bids from prospective contractors and selecting a Construction Contractor to whom the Utility Official will recommend Houston award

the construction contract for a Sub-Segment, the Utility Official shall invoice the Authority for its Construction Sub-Segment Payment for such Sub-Segment in accordance with Section 4.2 (General Invoice & Payment Requirements), which shall be in the amount of the Authority's Pro Rata Share of such construction contract, plus Contingencies in accordance with Section 4.9 (Contingencies). Houston shall use Construction Sub-Segment Payments solely to pay the Authority's Pro Rata Share of Project Costs for the applicable Sub-Segment(s).

4.7 Payment of Pay Estimates for Construction Costs. The Utility Official shall review the monthly pay estimates related to the construction of the Segment 2 Project as submitted by the Construction Contractor(s). If Houston accepts the work as having been performed in general conformance with the construction contract, the Utility Official shall submit such pay estimate to the Authority Representative, including each Segment 2 Project Party's respective Pro Rata Share of same. The Authority Representative may provide written comments, if any, within five (5) business days following the date same is received by the Authority Representative. The Utility Official shall reasonably consider such comments and use good faith efforts to satisfy same where practical. Houston shall then be entitled to draw on the Project Account to pay the Authority's Pro Rata Share of the pay estimate(s). Following final completion of a Sub-Segment and acceptance of the same by Houston and the Authority and, if applicable, any other appropriate governmental entity, Houston shall issue a certificate of completion and the final pay estimate from the Construction Contractor shall be submitted to the Authority Representative for review.

4.8 Transfer of Funds on Sub-Segment Completion.

4.8.1 Within sixty (60) days after substantial completion of a Sub-Segment, the Utility Official shall send the Authority Representative a statement showing (a) the amounts of any funds from the Engineering Sub-Segment Payment and the Construction Sub-Segment Payment for such Sub-Segment eligible to be de-encumbered; (b) the date on which Houston intends to transfer such de-encumbered funds to the Contingencies Fund, which date shall be no less than thirty days (30) after delivery of said statement; and (c) the expected balance of the Contingencies Fund and the Contingencies Ratio following such transfer. If the Authority Representative does not send written objections within fifteen (15) days after receipt of the statement, the Utility Official shall transfer such amounts on the intended date; provided, however, that additional time for review and approval may be granted by Houston to the Authority.

4.8.2 Within sixty (60) days of final completion of a Sub-Segment, the Utility Official shall send the Authority Representative a statement showing (a) the amounts of any remaining funds from the Engineering Sub-Segment Payment and the Construction Sub-Segment Payment for such Sub-Segment; (b) the date on which Houston intends to transfer such funds to the Contingencies Fund, which date shall be no less than thirty days (30) after delivery of said statement; and (c) the expected balance of the Contingencies Fund and the Contingencies Ratio following such transfer. If the Authority Representative does not send written objections within fifteen (15) days after receipt of the statement, the Utility Official shall transfer such amounts on the intended date; provided, however, that additional time for review and approval may be granted by Houston to the Authority.

4.9 Contingencies. Subject to the conditions stated in this Section, Houston may include in any invoice for a Construction Sub-Segment Payment an amount of Contingencies equal to or less than ten percent (10%) of the construction contract to which the Construction Sub-Segment Payment relates. Houston shall deposit all such amounts for Contingencies into the Contingencies Fund. Houston shall also deposit into the Contingencies Fund unexpended funds from payments made for Real Estate Costs, in accordance with Section 4.4, and from Engineering Sub-Segment Payments and Construction Sub-Segment Payments, in accordance with Section 4.8.

4.9.1 Prior to final completion of the Segment 2 Project or unless the Utility Official and Authority Representative agree otherwise in writing, Houston may draw on the Contingencies Fund exclusively to pay for Contingencies and Houston shall pay for Contingencies exclusively from the Contingencies Fund. At least ten (10) business days before the date that Houston draws on the Contingencies Fund, the Utility Official shall provide notice of its intent to make such a draw to the Authority Representative, which notice will include the total amount of such draw and each Segment 2 Project Party's Pro Rata Share of same. Interest earnings from the Contingencies Fund will remain in the Contingencies Fund until the True-Up of the final AUP Report.

4.9.2 Except as may be agreed upon in writing by the Utility Official and the Authority Representative, Houston may not invoice the Authority for Contingencies in any Construction Sub-Segment Payment to the extent such Contingencies would cause the



Contingencies Ratio to exceed five percent (5%). In addition, except as may be agreed upon in writing by the Utility Official and the Authority Representative and within 60 days of the calculation of the Contingencies Ratio by the Utility Official, Houston will release to the Segment 2 Project Parties any amount by which Contingencies Ratio exceeds ten percent (10%). Funds released in accordance with the preceding sentence shall be divided among the Segment 2 Project Parties in proportion to the percentage share of the Contingencies Fund balance attributable to each such party.

4.10 Sub-Segment AUP Reports. Within sixty (60) days of Houston's issuance of its audited annual financial statements, but in no event later than the following March 1, Houston shall initiate the preparation of a Sub-Segment AUP Report for each Sub-Segment completed during Houston's most recently ended fiscal year, if any, in order to verify that the Authority has paid its appropriate share of Project Costs for each such Sub-Segment. Such AUP shall also verify that Houston used the funds paid by the Authority under Section 4.3 (Previously Appropriated Project Costs) in accordance with such section. Each Sub-Segment AUP Report shall be prepared in accordance with the accounting procedures to be agreed upon by the Utility Official and the Authority Representative and shall take into account all Project Costs for the Sub-Segment, the Authority's Pro Rata Share of such costs, any liquidated damages owed to the Authority pursuant to Section 3.6.7 hereof (based on the Authority's Pro Rata Share) and any earnings and interest accrued on the Authority's pre-payment of such costs.

4.10.1 Houston shall cause each Sub-Segment AUP Report to be completed within one-hundred twenty (120) days after it is initiated. Houston shall engage an independent certified public accounting firm to conduct each Sub-Segment AUP Report. As soon as such firm has completed the Sub-Segment AUP Report, Houston shall submit a copy of such Sub-Segment AUP Report to the Authority for review. The Authority shall have sixty (60) days to review the Sub-Segment AUP Report and to provide comments on same to Houston. Houston shall address the Authority's comments and approve the final Sub-Segment AUP Report within thirty (30) days of receipt of the Authority's comments, unless the Authority Representative and the Utility Official agree otherwise. Notwithstanding the foregoing, the Utility Official and the Authority Representative may agree in writing to vary the aforementioned schedule for completion of each Sub-Segment AUP Report.

4.10.2 In accordance with each Sub-Segment AUP Report, Houston and the Authority agree to "true-up" the payments for each Sub-Segment such that if any Segment 2 Project Party has underpaid its Pro Rata Share of Project Costs for the Sub-Segment, Houston will debit the amount of such underpayment from that party's allocation of the balance in the Contingencies Fund. Conversely, if any Segment 2 Project Party has overpaid any such costs according to the Sub-Segment AUP Report, Houston will credit the amount of such overpayment to that party's allocation of the balance in the Contingencies Fund. The process described in this sub-section shall be referred to herein as a "True-up."

4.11 Final AUP Report. Within forty-five (45) days of Houston's issuance of a certificate of final completion for the last Sub-Segment, Houston shall initiate the preparation of an AUP Report on such final Sub-Segment. All provisions applicable to a Sub-Segment AUP report, including without limitation the time within which such report must be completed and within which the Authority must provide comments, shall apply to this final report. In addition, the final AUP Report will test and verify any refunds issued from the Contingencies Fund to any Segment 2 Project Party pursuant to Section 4.6 (Contingencies) and the allocations among the Segment 2 Project Parties of the balance remaining in the Contingencies Fund.

**ARTICLE V**  
**COMPONENT PARTS OF SEGMENT 2 INCLUDED IN DEFINED TERMS**  
**OF WATER SUPPLY CONTRACT**

5.1 Transmission Facilities. Upon substantial completion of construction of each Sub-Segment, that Sub-Segment is included in the definition of Transmission Facilities in the Water Supply Contract, all provisions of the Water Supply Contract applicable to Transmission Facilities apply to same and *Exhibit "D"* to the Original Contract is amended to include that portion of *Exhibit "C"* hereto that depicts such Sub-Segment.

5.2 Point(s) of Delivery. Upon substantial completion of construction of a Segment 2 Point of Delivery, such Segment 2 Point of Delivery is included in the definition of Point(s) of Delivery in the Water Supply Contract, all provisions of the Water Supply Contract applicable to Point(s) of Delivery apply to same and *Exhibit "C"* to the Original Contract is amended to include that portion of *Exhibit "C"* hereto that depicts such Segment 2 Point of Delivery.

- 5.3 Point(s) of Measurement. Upon substantial completion of construction of a Segment 2 Point of Measurement, such Segment 2 Point of Measurement is included in the definition of Point(s) of Measurement in the Water Supply Contract, all provisions of the Water Supply Contract applicable to Point(s) of Measurement apply to same and *Exhibit "C"* to the Original Contract is amended to include that portion of *Exhibit "C"* hereto that depicts such Segment 2 Point of Measurement.
- 5.4 Utility Official. The definition of "Utility Official" in the Water Supply Contract is hereby changed to mean the Director of the Department of Public Works and Engineering of Houston, or any other person who may hereafter exercise the functions of said Director under the applicable Ordinances of Houston.

**ARTICLE VI**  
**MEASUREMENT OF WATER CONSUMPTION FROM SEGMENT 2**

- 6.1 Connection and Meter. The Authority shall construct, at its sole cost, the Water handling facilities between the Segment 2 Point(s) of Delivery and the Segment 2 Point(s) of Measurement and set the water meter(s) at the Segment 2 Point(s) of Measurement under the mutual approval and inspection of the Utility Official and the Authority. The Authority acknowledges that the Utility Official will not approve installation of Venturi meters at the Segment 2 Point(s) of Measurement. Before any connection, the Authority System shall be disinfected in accordance with requirements approved by the Utility Official. The Authority also agrees to provide a telephone (if required by the Utility Official) and electronic connection accessible at the Segment 2 Point(s) of Measurement. Houston shall allow the installation of a magnetic or similar low head loss flow meter to measure the Authority's flow at the Segment 2 Point(s) of Measurement.
- 6.2 Pressure Monitoring. If the Authority installs in-line pressure boosting facilities downstream of the Segment 2 Point(s) of Delivery then, subject to Section 2.02 of the Original Contract, the Authority shall also install an appropriate flow control device downstream of the Segment 2 Point(s) of Delivery at no cost to Houston. In addition, Houston may, at its sole option and expense, install the necessary equipment or system to monitor the pressure of Segment 2. The Authority shall be provided access to such pressure data on a continual basis.

**ARTICLE VII**  
**GENERAL MISCELLANEOUS PROVISIONS**

- 7.1 Term and Expiration. This Fourth Supplement shall be in force and effect from and after the Effective Date and shall expire at noon on January 1, 2080. At such time as this Fourth Supplement is no longer in force and effect, if requested in writing by the Authority, Houston agrees to continue to provide water to the Authority through Segment 2 upon the payment of reasonable rates and charges therefor which take into account the capital payments paid by the Authority to Houston pursuant to this Fourth Supplement (and any amendments or supplements thereto) and the Authority's equitable interest described below. Upon the date this Fourth Supplement is no longer in force and effect, the Authority will continue to own the right to use its Pro Rata Share of Segment 2 Capacity. The immediately preceding two (2) sentences shall survive the expiration or termination of this Fourth Supplement.
- 7.2 Ingress and Egress. During the term of this Fourth Supplement, and upon the giving of prior notification to the Authority, Houston shall have the right of ingress and egress in, upon, under and over any and all land, easements and rights-of-way of the Authority on which Houston, with the Authority's consent, constructs facilities to deliver Water to the Authority.
- 7.3 Assignments. This Fourth Supplement shall bind and benefit the respective parties and their legal successors, but shall not otherwise be assignable, in whole or in part, by either party without first obtaining written consent of the other. "Assignment" as used herein means assignment in law or otherwise.
- 7.4 Subject to Law. This Fourth Supplement shall be subject to all present and future valid laws, orders, rules and regulations of the United States of America, the State of Texas, any regulatory body having jurisdiction and the Charter and Ordinances (to the extent the Ordinances are not inconsistent with this Fourth Supplement) of the City of Houston, Texas. In order to protect the Houston System it is specifically agreed that the Authority System shall be constructed and operated to comply with the rules promulgated by the Texas Commission on Environmental Quality, or any successor agency, the Houston Plumbing Code, and the policy of requirements of the Utility Official regarding backflow prevention and cross connections. Should a condition in violation of these requirements be discovered, the Authority shall promptly cure same.

- 7.5 No Additional Waiver Implied. The failure of either party hereto to insist, in any one or more instances, upon performance of any of the terms, covenants or conditions of this Fourth Supplement, shall not be construed as a waiver or relinquishment of the future performance of any such term, covenant or condition by the other party hereto, but the obligation of such other party with respect to such future performance shall continue in full force and effect.
- 7.6 Merger; Conflicts. This instrument contains all the agreements made between the parties with regard to Segment 2, the Segment 2 Project, and the Segment 2 Capacity. This Fourth Supplement merges the prior negotiations and understandings of the parties and embodies the entire agreement of the parties in relation to Segment 2, the Segment 2 Project, and the Segment 2 Capacity. No other agreements, assurances, conditions, covenants (express or implied), or other terms of any kind, exist between the parties regarding Segment 2, the Segment 2 Project, and the Segment 2 Capacity contemplated in this Fourth Supplement. This Fourth Supplement shall control over the Water Supply Contract with respect to the matters addressed in this Fourth Supplement, including, without limitation: (i) the Segment 2 Project and all payments from the Authority related to the same, and (ii) the Authority's Segment 2 Reservation and all payments related to the same. Except to the extent inconsistent with this Fourth Supplement, all terms of the Water Supply Contract remain in full force and effect.
- 7.7 Notices. Until the Authority is otherwise notified in writing by Houston, the address of Houston is and shall remain as follows:

City of Houston  
Utility Official of Public Works and Engineering Department  
P.O. Box 1560  
Houston, Texas 77251-1560

Until Houston is otherwise notified in writing by the Authority, the address of the Authority is and shall remain as follows:

North Harris County Regional Water Authority  
c/o General Manager  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

All written notices, statements and payments required or permitted to be given under this Fourth Supplement from one party to the other shall be deemed given by the deposit in a United States Postal Service mailbox or receptacle of certified or registered mail, with proper postage affixed thereto, addressed to the respective other party at the address set forth above or at such other address as the parties respectively shall designate by written notice.

- 7.8 Authorship. The parties agree that this Fourth Supplement shall not be construed in favor of or against either party on the basis that the party did or did not author this Fourth Supplement.
- 7.9 Parties in Interest. This Fourth Supplement shall be for the sole and exclusive benefit of the parties hereto and shall not be construed to confer any rights upon any third party. Houston shall never be subject to any liability in damages to any customer of the Authority for any failure to perform under this Fourth Supplement.
- 7.10 Captions. The captions appearing at the first of each numbered Section in this Fourth Supplement are inserted and included solely for convenience and shall never be considered or given any effect in construing this Fourth Supplement, or any provisions hereof, or in connection with the duties, obligations, or liabilities of the respective parties hereto or in ascertaining intent, if any questions of intent should arise.
- 7.11 Enforcement. The City Attorney or his or her designee shall have the right to enforce all legal rights and obligations under this Fourth Supplement without further authorization.
- 7.12 Approvals. Unless otherwise provided for herein, any consent or approval of the parties shall be made by the governing body of each party.
- 7.13 Time of Essence; Force Majeure. Time is of the essence with respect to performance of all obligations set forth in this Fourth Supplement. The Force Majeure provisions of the Original Contract apply to this Fourth Supplement; provided, however, Force Majeure does not excuse a failure to timely satisfy Engineering Sub-Segment Payment or Construction Sub-Segment Payment obligations.
- 7.14 Default and Remedies. Default shall occur only in the event either party fails to adhere to its respective obligations hereunder. In such event, the non-defaulting party shall give the defaulting

party: (i) written notice describing such default and the necessary cure therefor; and (ii) the opportunity to cure such default or provide an acceptable plan to cure the default within no less than thirty (30) days of receipt of such notice. If the default is cured within the specified time period to the satisfaction of the non-defaulting party, then no further action shall be taken by the non-defaulting party. If the default is not cured or an acceptable plan to cure the default is not submitted within the specified time period to the satisfaction of the non-defaulting party, the non-defaulting party may pursue any available remedies existing at law or in equity. This Section shall not be considered as specifying the exclusive remedy or procedure for remedy for any default, and all remedies existing at law and in equity are to be available to either party; provided, however, that the parties may submit their dispute in good faith to non-binding mediation, the costs of which will be shared equally by the parties, prior to either party filing suit for any default under this Fourth Supplement.

- 7.15 Severability. The provisions of this Fourth Supplement are severable, and if any provision or part of this Fourth Supplement or the application thereof to any person or circumstance shall ever be held by any court of competent jurisdiction to be invalid or unconstitutional for any reason, the remainder of this Fourth Supplement and the application of such provision or part of this Fourth Supplement to other persons or circumstances shall not be affected thereby.
- 7.16 Goods and/or Services. Houston and the Authority expressly acknowledge and agree that this Fourth Supplement constitutes a contract by which each party is providing goods and/or services to the other party and that this Fourth Supplement is subject to the provisions of Subchapter I, Chapter 271, of the Texas Local Government Code.
- 7.17 Written Amendment. Unless otherwise specified elsewhere in this Fourth Supplement, this Fourth Supplement may be amended only by written instrument executed by the governing bodies of Houston and the Authority.
- 7.18 Exhibits. Exhibits "A" through "E" attached to this Fourth Supplement are hereby incorporated herein for all purposes.
- 7.19 Rates. Houston and the Authority each represent and certify that it will have on hand and lawfully available sufficient funds to make its payments due hereunder. Houston and the Authority each recognize its respective duty to, and covenants and agrees that at all times it will,

establish, maintain, and from time to time adjust, the rates, fees, and charges for the services it provides to its customers in order to generate revenue therefrom, together with funds received from any other lawful source, sufficient to fund its obligations under this Fourth Supplement.

[EXECUTION PAGES FOLLOW]



IN WITNESS WHEREOF, the parties hereto have executed this Fourth Supplement in multiple copies, each of which shall be deemed to be an original, effective on the date of countersignature indicated below.

**NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY**

By:   
Alan J. Rendl, President


**ATTEST:**

By:   
Lenox A. Sigler, Secretary


**DATE APPROVED:**

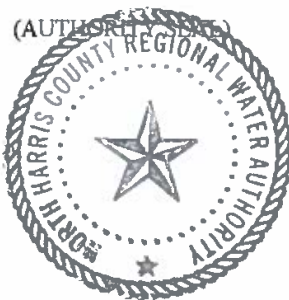
10-26-2015

**APPROVED:**

By:   
Jimmie Schindewolf, P.E.  
General Manager

**APPROVE AS TO FORM:**

By:   
Robin S. Bobbin  
General Counsel



CITY OF HOUSTON, TEXAS

*Annise D. Parker*

Annise D. Parker  
Mayor

*Ammonde Washington*

ATTEST/SEAL:

*Anna Russell*

Anna Russell  
City Secretary

DATE COUNTERSIGNED:

11-10-15  
("Effective Date")

APPROVED:

*John A. Rudick*

Director,  
Department

*John*

APPROVED AS TO FORM:

*Angie Cabell*

Assistant City Attorney

L.D. File No. *050634300352001*

COUNTERSIGNED BY:

*Ronald C. Green*

Ronald C. Green  
City Controller *James Poch*



## Exhibit A Participation Table

### 108-inch Water Line

Participant	MGD Capacity	Percent
NHCRWA	113.00	54.96%
CHCRWA	4.88	2.37%
City of Houston	87.72	42.67%
<b>Total</b>	<b>205.60</b>	<b>100.00%</b>

**EXHIBIT B  
NETL PROJECT BUDGET - SEGMENT 2**

WBS	Project Name/Project Item	Appropriation from Incision to 10/31/2015 (BE expenditure thru 4/30/15)	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	TOTAL
S-00000-014	Pre-Engineering / Feasibility for NETL Engineering Cost Recovery	1,331,424	0	0	0	0	0	0	0	0	0	0	1,331,424
		1,157,768											
S-00000-021	SWTP Contract Engineering Cost Recovery	1,240,240	0	0	0	0	0	0	0	0	0	0	1,240,240
		835,000											
S-00000-026	108" South to Life Engineering Construction Cost Recovery	2,941,051	35,898,944	0	0	0	0	0	0	0	0	0	38,211,995
		3,245,032	770,050										
		180,000	3,662,020										
		817,051	1,800,274										
			1,452,050										
S-00000-027	54" Reconnect along Victory Engineering Construction Cost Recovery	971,200	10,218,575	0	0	0	0	0	0	0	0	0	11,189,775
		848,032	200,000										
		137,200	778,800										
			66,528										
			308,846										
S-00000-056	108" Lee to Victory Engineering Construction Cost Recovery	1,818,165	31,912,751	0	0	0	0	0	0	0	0	0	33,630,916
		1,575,940	717,000										
		230,181	28,195,751										
		48,834	4,308,331										
			1,302,550										
S-00000-040	108" Below Falls to Smith Engineering Construction Cost Recovery	4,892,129	0	40,599,865	0	0	0	0	0	0	0	0	45,491,995
		4,238,000	0	867,000									
		635,835	0	33,652,600									
		177,294	0	4,181,600									
		0	0	1,653,100									
		0	0	192,078									

**EXHIBIT B  
NETL PROJECT BUDGET - SEGMENT 2**

WBS	Project Name/Project Item	Appropriation from Incapital IS 60312815 RIS 62222816, 62222817	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	TOTAL
S-00000-0154	100" Railroad to Relation	5,706,100	75,419	32,501,656	0	0	0	0	0	0	0	0	38,291,158
	Engineering	4,507,752	0	28,700,000	0	0	0	0	0	0	0	0	33,207,752
	Construction	1,141,818	75,419	3,801,656	0	0	0	0	0	0	0	0	5,729,913
	Cost Estimate	0	0	1,335,000	0	0	0	0	0	0	0	0	1,335,000
	Construction Contingency	0	0	1,466,656	0	0	0	0	0	0	0	0	1,466,656
	Inflation**	0	0	0	0	0	0	0	0	0	0	0	0
S-00000-0155	100" Relation to Below Falls	8,871,250	0	38,074,303	0	0	0	0	0	0	0	0	46,945,553
	Engineering	8,457,303	0	35,100,000	0	0	0	0	0	0	0	0	43,557,303
	Construction	1,764,729	0	3,032,000	0	0	0	0	0	0	0	0	4,796,729
	Cost Estimate	0	0	1,605,000	0	0	0	0	0	0	0	0	1,605,000
	Construction Contingency	0	0	1,517,303	0	0	0	0	0	0	0	0	1,517,303
	Inflation**	0	0	0	0	0	0	0	0	0	0	0	0
S-00000-0164	100" Vicinity to Miner	4,548,740	2,108,032	0	25,000,190	0	0	0	0	0	0	0	31,737,062
	Engineering	3,638,867	2,108,032	0	20,300,000	0	0	0	0	0	0	0	26,346,899
	Construction	800,748	0	0	2,454,300	0	0	0	0	0	0	0	3,255,048
	Cost Recovery	0	0	0	1,010,000	0	0	0	0	0	0	0	1,010,000
	Real Estate	0	0	0	1,440,500	0	0	0	0	0	0	0	1,440,500
	Construction Contingency	0	0	0	0	0	0	0	0	0	0	0	0
	Inflation**	0	0	0	0	0	0	0	0	0	0	0	0
S-00000-0157	100" Miner to Alden Westfield	5,457,346	0	1,867,207	20,300,075	0	0	0	0	0	0	0	26,624,628
	Engineering	4,308,278	0	0	17,600,000	0	0	0	0	0	0	0	21,908,278
	Construction	1,091,519	0	0	2,837,000	0	0	0	0	0	0	0	3,928,519
	Cost Recovery	0	0	0	1,737,281	0	0	0	0	0	0	0	1,737,281
	Real Estate	0	0	0	1,160,000	0	0	0	0	0	0	0	1,160,000
	Construction Contingency	0	0	0	73,509	0	0	0	0	0	0	0	73,509
	Inflation**	0	0	0	1,860,675	0	0	0	0	0	0	0	1,860,675
S-00000-0165	100" Alden Westfield to Hardy	0	6,507,525	0	43,874,793	0	0	0	0	0	0	0	50,382,318
	Engineering	0	5,111,800	0	30,240,000	0	0	0	0	0	0	0	35,351,800
	Construction	0	1,207,750	0	3,430,000	0	0	0	0	0	0	0	4,637,750
	Cost Recovery	0	0	0	5,987,450	0	0	0	0	0	0	0	5,987,450
	Real Estate	0	0	0	1,513,000	0	0	0	0	0	0	0	1,513,000
	Construction Contingency	0	0	0	0	0	0	0	0	0	0	0	0
	Inflation**	0	0	0	2,526,363	0	0	0	0	0	0	0	2,526,363



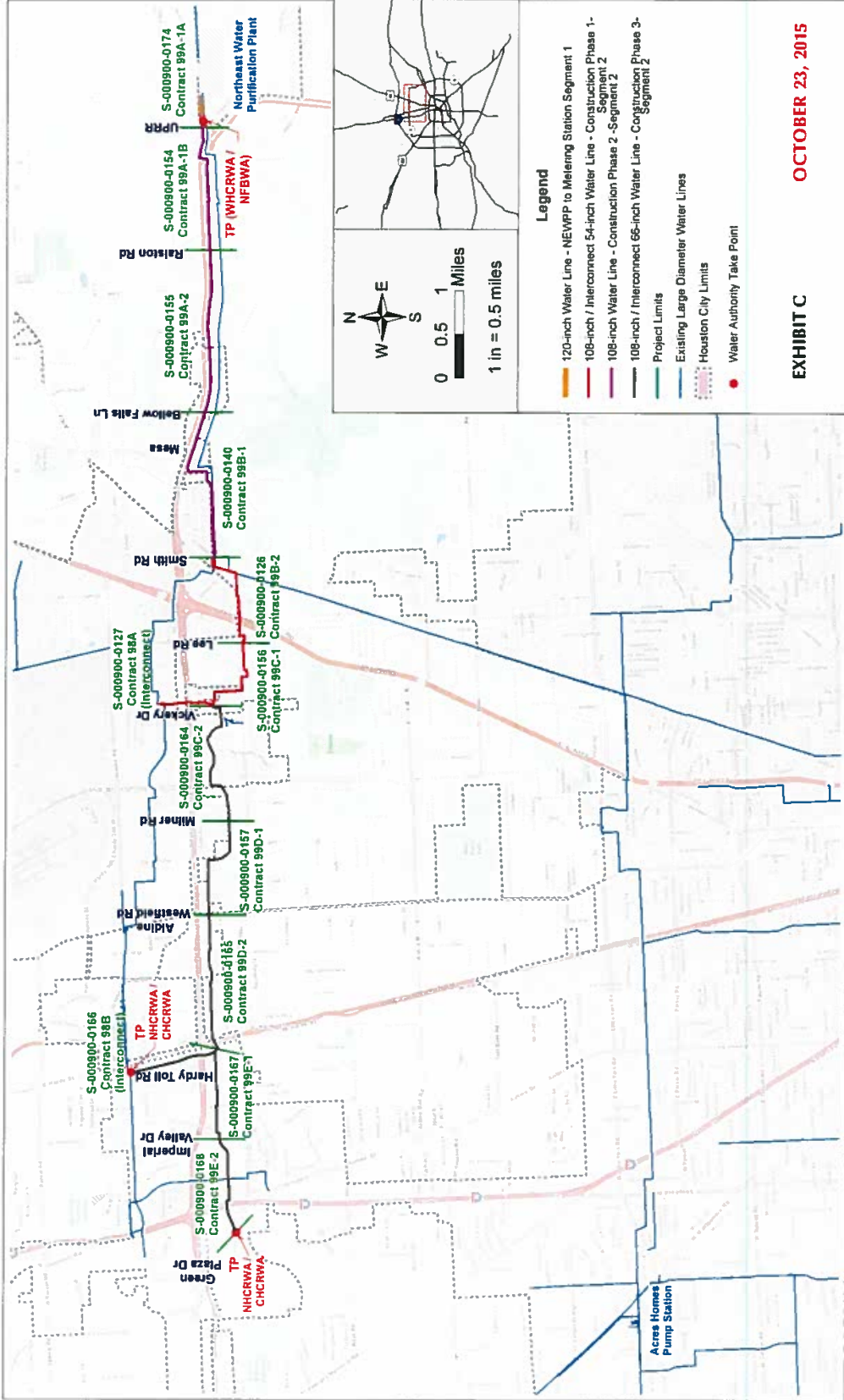
**EXHIBIT B  
NETL PROJECT BUDGET - SEGMENT 2**

WBS	Project Name/Project Item	Appropriation from Inception to 10/31/2015 (BE - Construction and E&P)	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	TOTAL
S-00000-0166	60" Interconnect along Hwy	0	75,660	2,752,725	0	240,653	10,033,650	0	0	0	0	0	\$ 18,152,084
	Engineering			2,119,000		0	17,500						
	Construction		69,533				1,524,000						
	Cost Reserve												
	Contingency		15,113	539,725	0	28,773	0	0	0	0	0	0	
	Road E&P		0	0	0	0	0	0	0	0	0	0	
	Construction Contingency		0	0	0	0	0	0	0	0	0	0	
	Inflation		0	53,875	0	13,860	0	0	0	0	0	0	
S-00000-0167	100" Hwy to Imperial Valley	0	454,000	5,418,750	0	5,347,780	31,661,141	0	0	0	0	0	\$ 42,871,671
	Engineering			4,250,000			27,000,000						
	Construction		263,200				3,000,000						
	Cost Reserve		60,800	1,062,500	0	0	0	0	0	0	0	0	
	Contingency		0	0	0	5,878	0	0	0	0	0	0	
	Road E&P		0	0	0	0	1,250,000	0	0	0	0	0	
	Construction Contingency		0	0	0	0	0	0	0	0	0	0	
	Inflation		0	100,250	0	308,101	2,411,141	0	0	0	0	0	
S-00000-0168	100" Imperial Valley to Green Plaza	0	37,834	5,115,300	0	281,220	29,888,117	0	0	0	0	0	\$ 35,322,471
	Engineering			4,612,000			29,800,000						
	Construction		30,267				2,832,000						
	Cost Reserve		7,567	1,003,000	0	0	0	0	0	0	0	0	
	Contingency		0	0	0	265,000	0	0	0	0	0	0	
	Road E&P		0	0	0	0	1,168,000	0	0	0	0	0	
	Construction Contingency		0	100,300	0	18,220	2,278,117	0	0	0	0	0	
	Inflation		0	0	0	0	0	0	0	0	0	0	
S-00000-0176	Study	0	1,875,862	0	0	0	0	0	0	0	0	0	\$ 1,875,862
	Engineering		1,360,000										
	Construction												
	Cost Reserve		334,018	0	0	0	0	0	0	0	0	0	
	Inflation		0	0	0	0	0	0	0	0	0	0	
	Total	\$ 12,463,606	\$ 162,758,372	\$ 62,837,417	\$ 71,442,868	\$ 384,231,997	\$ 77,633,377	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 453,115,147

NETL PROJECT BUDGET (Pro Rata Shares)- SEGMENT 2

WBS	Participant	Pro Rata Share(Exhibit A)	Appropriation from Integration to 10/1/2015 (RE same as prior)	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	TOTAL
S-000000-0114	NHCVNA	54.960%	\$ 6,817,194	\$ 56,486,024	\$ 34,425,634	\$ 40,364,024	\$ 57,279,917	\$ 42,667,161	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 218,000,005
S-000000-0121	CHCVNA	2.370%	\$ 293,973	\$ 2,435,809	\$ 1,484,512	\$ 1,740,591	\$ 2,470,040	\$ 1,839,905	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,764,829
S-000000-0128	City of Houston	42.670%	\$ 5,292,752	\$ 41,854,834	\$ 26,777,471	\$ 31,337,981	\$ 44,471,144	\$ 33,126,051	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 184,810,233
S-000000-0156														
S-000000-0166														
S-000000-0154														
S-000000-0155														
S-000000-0174														
S-000000-0155														
S-000000-0156														
S-000000-0167														
S-000000-0168														
S-000000-0176														
		100.0000%	\$ 12,403,920	\$ 102,776,137	\$ 62,687,617	\$ 71,442,656	\$ 104,221,101	\$ 77,633,117	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 431,115,147

# Proposed Northeast Transmission Water Line



Plan 1.118.1000 (09-04-2015) (09-04-2015) (09-04-2015) (09-04-2015) (09-04-2015) (09-04-2015) (09-04-2015) (09-04-2015) (09-04-2015) (09-04-2015)



<b>EXHIBIT D</b>					
<b>NETL SCHEDULE - SEGMENT 2</b>					
<b>WBS</b>	<b>Project Name/Project Item</b>	<b>ENGINEERING DESIGN</b>		<b>CONSTRUCTION</b>	
		<b>Council Approval</b>	<b>Contract End</b>	<b>Council Approval</b>	<b>Contract End</b>
S-000900-0114	Pre-Engineering / Feasibility for NETL	Approved	3rd Quarter - Calendar Year 2020	Not Applicable	Not Applicable
S-000900-0121	SWTP Contract	Approved	3rd Quarter - Calendar Year 2020	Not Applicable	Not Applicable
S-000900-0126	108" Smith to Lee	Approved	1st Quarter - Calendar Year 2018	2nd Quarter - Calendar Year 2016	1st Quarter - Calendar Year 2018
S-000900-0127	54" Interconnect along Vickery	Approved	1st Quarter - Calendar Year 2018	2nd Quarter - Calendar Year 2016	1st Quarter - Calendar Year 2018
S-000900-0156	108" Lee to Vickery	Approved	1st Quarter - Calendar Year 2018	2nd Quarter - Calendar Year 2016	1st Quarter - Calendar Year 2018
S-000900-0140	108" Bellow Falls to Smith	Approved	1st Quarter - Calendar Year 2019	2nd Quarter - Calendar Year 2017	1st Quarter - Calendar Year 2019
S-000900-0154	108" Railroad to Ralston	1st Quarter - Calendar Year 2016	3rd Quarter - Calendar Year 2019	4th Quarter - Calendar Year 2017	3rd Quarter - Calendar Year 2019
S-000900-0155	108" Ralston to Bellow Falls	1st Quarter - Calendar Year 2016	2nd Quarter - Calendar Year 2020	3rd Quarter - Calendar Year 2018	2nd Quarter - Calendar Year 2020
S-000900-00164	108" Vickery to Milner	1st Quarter - Calendar Year 2016	3rd Quarter - Calendar Year 2019	4th Quarter - Calendar Year 2017	3rd Quarter - Calendar Year 2019
S-000900-0157	108" Milner to Aldine Westfield	1st Quarter - Calendar Year 2016	2nd Quarter - Calendar Year 2020	3rd Quarter - Calendar Year 2018	2nd Quarter - Calendar Year 2020
S-000900-0165	108" Aldine Westfield to Hardy	1st Quarter - Calendar Year 2017	2nd Quarter - Calendar Year 2021	3rd Quarter - Calendar Year 2019	2nd Quarter - Calendar Year 2021
S-000900-0166	66" Interconnect along Hardy	1st Quarter - Calendar Year 2017	2nd Quarter - Calendar Year 2021	3rd Quarter - Calendar Year 2019	2nd Quarter - Calendar Year 2021
S-000900-0167	108" Hardy to Imperial Valley	1st Quarter - Calendar Year 2017	2nd Quarter - Calendar Year 2021	3rd Quarter - Calendar Year 2019	2nd Quarter - Calendar Year 2021
S-000900-0168	108" Imperial Valley to Green Plaza	1st Quarter - Calendar Year 2017	2nd Quarter - Calendar Year 2021	3rd Quarter - Calendar Year 2019	2nd Quarter - Calendar Year 2021
S-000900-0176	Study	Approved	3rd Quarter - Calendar Year 2020	Not Applicable	Not Applicable

**EXHIBIT E**

**NETL PROJECT COST APPROPRIATED BEFORE NOVEMBER 1, 2015 – SEGMENT 2**

<b>Cost by Category</b>	<b>Appropriation from Inception to 10/31/2015 (Real Estate Expenditure thru 6/30/2015)</b>
Engineering	\$ 9,955,608
Construction	\$ 0
Construction Contingency	\$ 0
Cost Recovery Amounts	\$ 1,658,340
Real Estate	\$ 789,971
<b>TOTAL</b>	<b>\$ 12,403,919</b>
<b>Pro Rata Share<sup>1</sup> of Total</b>	
NHCRWA	\$ 6,817,194
CHCRWA	\$ 293,973
City of Houston	\$ 5,292,752
<b>TOTAL</b>	<b>\$ 12,403,919</b>

**NOTES**

1. Pro Rata Shares based on Participation Table (Exhibit A)



**CERTIFICATE FOR RATE ORDER**

THE STATE OF TEXAS §  
COUNTY OF HARRIS §  
NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY §

I, the undersigned Secretary of the Board of Directors (the "Board") of North Harris County Regional Water Authority (the "Authority"), hereby certify as follows:

1. The Board convened in regular session, open to the public, on the 5<sup>th</sup> day of October, 2009, at the regular meeting place thereof, and the roll was called of the members of the Board, to-wit:

Kelly P. Fessler	President
James D. Pulliam	Vice President/Investment Officer
Ron Graham	Secretary
Lenox A. Sigler	Treasurer
Alan J. Rendl	Assistant Secretary

All members of the Board were present except the following: NONE, thus constituting a quorum. Whereupon, among other business, the following was transacted at such meeting:


**RATE ORDER**

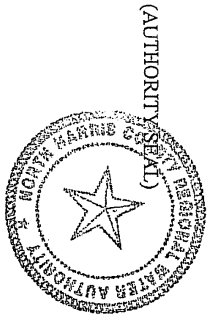
was duly introduced for the consideration of the Board. It was then duly moved and seconded that such Order be adopted; and, after due discussion, such motion, carrying with it the adoption of said Order, prevailed and carried by the following vote:

AYES: 5                      NOES: 0

2. A true, full, and correct copy of the aforesaid Order adopted at the meeting described in the above and foregoing paragraph is attached to and follows this Certificate; such Order has been duly recorded in said Board's minutes of such meeting; the above and foregoing paragraph is a true, full, and correct except from the Board's minutes of such meeting pertaining to the adoption of such Order; the persons named in the above and foregoing paragraph are the duly chosen, qualified, and acting officers and members of the Board as indicated therein; each of the officers and members of the Board was duly and sufficiently notified officially and personally, in advance of the time, place, and purpose of such meeting and that such Order would be introduced and considered for adoption at such meeting and each of such officers and members consented, in advance, to the holding of such meeting for such purpose; such meeting was open to the public, as required by law; and public notice of the time, place and purpose of such meeting was given as required by Chapter 551, Government Code and Section 49.063, Texas Water Code, as amended.

SIGNED AND SEALED the 5<sup>th</sup> day of October, 2009.

  
Secretary, Board of Directors



**NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY**

**RATE ORDER**

**Date Adopted:      October 5, 2009**

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**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
RATE ORDER**

STATE OF TEXAS                   \$  
  \$  
COUNTY OF HARRIS             \$

**RECITALS**

WHEREAS, the North Harris County Regional Water Authority (the "Authority") is a regional water authority created pursuant to House Bill 2695 of the 76th Legislature, as amended (the "Act"), and Article XVI, Section 59 of the Texas Constitution; and

WHEREAS, the Authority was created, among other purposes, to accomplish the purposes of Article XVI, Section 59 of the Texas Constitution, including the acquisition and provision of surface water and groundwater for residential, commercial, industrial, agricultural, and other uses, the reduction of groundwater withdrawals, the conservation, preservation, protection, recharge and prevention of waste of groundwater; and of groundwater reservoirs or their subdivisions, and the control of subsidence caused by withdrawal of water from those groundwater reservoirs or their subdivisions; and

WHEREAS, the Act provides that the Authority may: (1) provide for the conservation, preservation, protection, recharge, and prevention of waste of groundwater in a manner consistent with the purposes of Section 59, Article XVI, Texas Constitution; (2) acquire or develop surface water and groundwater supplies from sources inside or outside the boundaries of the Authority and may conserve, store, transport, treat, purify, distribute, sell, and deliver water to persons, corporations, municipal corporations, political subdivisions of the state, and others, inside of and outside of the boundaries of the Authority for the purposes of reducing groundwater withdrawals and subsidence; and (3) provide for the reduction of groundwater withdrawals by the development, implementation, or enforcement of a groundwater reduction plan, which shall be binding on persons, districts, entities and wells within the Authority's boundaries; and

WHEREAS, the Act provides that the Authority may establish fees, rates and charges and classifications of fee and rate payers, as necessary to enable the Authority to fulfill the Authority's purposes and regulatory obligations and such fee, rates and charges must be sufficient to achieve water conservation, prevent waste of water, serve as a disincentive to pumping ground water, and accomplish the purposes of the Act, including making available alternative water supplies and to enable the Authority to meet operation and maintenance expenses and pay the principal of and interest on debt issued in connection with the exercise of the Authority's general powers and duties; and

WHEREAS, the Act authorizes the Authority to specify the rates, terms and conditions under which sources of water other than groundwater will be provided by the Authority, which may be changed from time to time as deemed necessary by the Authority, and to enter into contracts with persons, including political subdivisions of the state, on terms and conditions the board considers desirable, fair and advantageous for the performance of its rights, power, and authority under the Act and requires the Authority to adopt and enforce rules reasonably required to implement the Act; and

WHEREAS, the Board has determined that the fees, rates, charges, and classifications of fee and ratepayers, as well as the terms and conditions under which Authority Water will be provided, established in this Rate Order are necessary to accomplish the purposes and requirements set forth in the Act.

NOW, THEREFORE, IT IS ORDERED BY THE BOARD OF DIRECTORS OF THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY THAT:

#### ARTICLE I DEFINITIONS

##### Section 1.01 Definitions.

As used herein, the following terms shall have the respective meanings set forth or referred to below:

"Act" means House Bill 2965 of the 76th Texas Legislature, as amended.

"Authority" means the North Harris County Regional Water Authority or its representatives or consultants.

"Authority Engineer" means the Authority's Program Manager (currently AECOM USA Group, Inc.), which may be changed from time to time by the Authority.

"Authority Operator" means the operating company performing operations for the Authority (currently Severn Trent Environmental Services, Inc.), which may be changed from time to time by the Authority.

"Authority System" means the Authority's facilities, pipelines, storage tanks, conduits, pumping stations, treatment plants, meters, valves, and any other facility, device, or related appurtenance or connection used in the treatment, transportation, storage or otherwise related to the Authority's provision of Authority Water, including all easements, rights-of-way and sites owned or utilized by the Authority.

"Authority Water" means water (whether surface, ground, or a blend of both) that is delivered through or by the Authority System other than pursuant to a Groundwater Transfer Agreement – Buyer.

"Board" means the Board of Directors of the Authority.

"Chloramine System" means a chlorine and ammonia automatic proportional feed disinfection system, which is required to be installed by each Converted Entity prior to receiving Authority Water from the Authority, as further described in Section 5.05 hereof.

"Commission" means the Texas Commission on Environmental Quality, and any predecessor or successor agency.

"Converted Entity" means a Person who is designated by the Authority to receive or is actually receiving Authority Water other than through a Groundwater Transfer Agreement – Buyer or a temporary or emergency water interconnect with a Converted Entity.

"Cost of Water" means the Fee charged to a Payor based on the amount of (i) Water pumped from a Non-Exempt Well, (ii) Imported Water transported into the Authority, and/or (iii) Authority Water received, and shall be expressed as an amount of dollars for each 1,000 gallons of Water pumped, imported and/or received from the Authority, as applicable.

"Delivery Point" means the location at which the Authority's System connects to the water system of a Converted Entity through which Authority Water is supplied by the Authority to the Converted Entity.

"District" means any district created pursuant to Article III, Section 52(b)(1), (2) or Article XVI, Section 59, Texas Constitution, regardless of the manner of creation, other than a navigation district or a district governed by Chapter 36 of the Texas Water Code.

"Exempt Well" means a Well within the Authority's boundaries that (i) is not subject to groundwater reduction requirements imposed by the HGSD, as such requirements may be amended from time to time; (ii) is owned by a municipality not providing service to customers within the boundaries of the Authority; (iii) has a casing diameter of less than five (5) inches that solely serves a single family dwelling; (iv) is regulated under Chapter 27 of the Texas Water Code (injection wells); (v) is used for irrigation of agricultural crops; (vi) singularly or when aggregated with other Wells produces less than five (5) million gallons annually; or (vii) is used solely for electric generation.

"Fee" shall mean, collectively or individually, any fee, rate or charge imposed by the Authority under the provisions of this Rate Order.

"General Manager" means the General Manager of the Authority or his/her designee(s), or any other person who may hereafter exercise the functions of the said General Manager.

"GRP" means that certain groundwater reduction plan, dated May 2003, as amended, and all directives, determinations and requirements issued by the Authority (or the Authority Engineer or Authority Operator) pursuant to such plan, as all of same may be amended from time to time.

"HGSD" means the Harris-Galveston Subsidence District

"Houston" means the City of Houston, Texas.

"Imported Water" means water, whether groundwater or surface water, that is produced outside of the boundaries of the Authority and transported into the boundaries of the Authority, by a Person other than the Authority, for subsequent distribution to an end user within the boundaries of the Authority.

"Importing Water" means the act of transporting water produced outside the Authority's boundaries across the Authority's boundaries for subsequent distribution to an end user within the Authority's boundaries.

"Meter" means any meter required to be installed by Section 4.01(a) hereof.

"Non-Exempt Well" means any Well within the Authority other than an Exempt Well.

"Non-Exempt Well Owner" means any Person owning a Non-Exempt Well.

"OPRS" means the Online Pumpage Reporting System maintained by the Authority to track the volume of Water received and from which each Payor will generate and print monthly bills for Fees owed by each Payor.

"Payor" means a Person required to pay a Fee under this Rate Order.

"Person" means any individual, corporation, organization, government or governmental subdivision or agency, District, municipality, county, political subdivision, business trust, trust, estate, partnership, association, or any other legal entity.

"Pricing Policy" means the policy adopted by the Board pursuant to which the Cost of Water is determined and implemented. The Cost of Water shall be stated within the body of or as an exhibit or attachment to the Pricing Policy. The Authority's current Pricing Policy is attached hereto as Exhibit "A".

"Rate Order" means this North Harris County Regional Water Authority Rate Order, as may be amended by the Authority from time to time.

"Water" means, collectively, groundwater pumped by a Non-Exempt Well, Imported Water and Authority Water.

"Water Importation Site" means each connection, other than a connection through which the Authority receives water, whether permanent or temporary, at which water originating from outside the boundaries of the Authority enters the boundaries of the Authority.

"Water Supply Agreement" means a written agreement in a form substantially similar to that attached hereto as Exhibit "C" wherein the Authority covenants to supply and sell, and a buyer covenants to receive and purchase, a stated volume of Authority Water.

"Well" means a facility, device, or method used to withdraw groundwater.

#### Section 1.02 Interpretations.

The article and section headings of this Rate Order are included herein for convenience of reference purposes only and shall not constitute a part of this Rate Order or affect its interpretation in any respect. Except where the context otherwise requires, words imparting the singular number shall include the plural and vice versa.

#### Section 1.03 References.

Any reference in this Rate Order to a document shall mean such document and all exhibits thereto as amended or supplemented from time to time.

Section 1.04 Effective Date.

This Rate Order shall become effective immediately upon adoption. However, the provisions of Article III below, including without limitation the Pricing Policy and the Cost of Water stated therein, shall become effective on January 1, 2010.

**ARTICLE II  
FINDINGS**

Section 2.01 Findings.

Each of the recitals stated in this Rate Order are hereby adopted as a finding of the Board. All statutory requirements and conditions have been met for the establishment of those fees, rates, charges and classifications of fee and rate payers set forth in this Rate Order.

**ARTICLE III  
PRICING POLICY, COST OF WATER AND FEE COLLECTION**

Section 3.01 Pricing Policy, Cost of Water.

The Authority shall, by order or resolution of the Board adopted in compliance with all applicable laws, implement a Pricing Policy and set the Cost of Water. The Board may periodically adopt an updated Pricing Policy and/or Cost of Water without the necessity of amending this Rate Order. A copy of the current Pricing Policy, which contains the Cost of Water, is attached hereto as Exhibit "A".

Section 3.02 Date Payments Due.

A Payor must pay the full Fee owed on a monthly basis, and such Fees for Water received each month shall be due by the 18th day of the second (2<sup>nd</sup>) month following month during which the Payor incurred the Fee. For example, Fees for Water received during the month of January must be paid by the 18<sup>th</sup> of March. All payments must be received at the office of the Authority, if mailed, or in the Authority's account, if wired, on or before the due date.

Section 3.03 Meter Reading Reporting.

(a) *Authority.* The Authority will not send invoices or bills to any Payor. However, the Authority shall deliver to each Payor a notice, including a copy, of any orders or resolutions changing the Pricing Policy or Cost of Water and will read each Meter measuring Authority Water on the last regular business day of each month and enter such readings into the OPRS.

(b) *Payor.* Payors must read Meters not measuring Authority Water on a daily basis and enter such readings into the OPRS a minimum of two (2) non-consecutive days each week. However, Payors whose water distribution systems serve fewer than 250 connections and use only groundwater or purchase treated Water shall read Meters not measuring Authority Water and enter such readings into the OPRS a minimum of one (1) time each week.

Section 3.04 Collection of Fees.

(a) *Fee Statements.* Once all Meter readings have been entered pursuant to Section 3.03 hereof, the Payor shall print its Fee statement from the OPRS and deliver the Fee statement to the Authority with full payment, within the timeframe required by Section 3.02 hereof.

(b) *Late Fees.* Payments for Fees not received by the Authority by the date required in Section 3.02 hereof shall accrue interest at a rate equal to the sum of one percent (1%) and the prime rate published in the Wall Street Journal on the first (1<sup>st</sup>) day of preceding July that does not fall on a Saturday or Sunday.

(c) *Collection Costs.* In a formal administrative or judicial action to collect Fees or interest due under this Rate Order, the opposing party, which may be the Authority or the Payor, shall pay the reasonable attorney fees of the prevailing party.

Section 3.05 Form of Payment.

All Fees payable to the Authority shall be paid in money which is legal tender in the United States of America. Payments will be accepted only by check or money order made payable to the "North Harris County Regional Water Authority" or by wire transfer according to written writing instructions provided by the Authority. No cash will be accepted. Written wire instructions are available upon request.

**ARTICLE IV  
MEASUREMENT OF WATER USAGE**

Section 4.01 Meters.

(a) *Locations.* Each Non-Exempt Well, Delivery Point and Water Importation Site shall be equipped with a Meter to measure the volume of (i) water pumped from each Non-Exempt Well, (ii) Authority Water supplied by the Authority to a Converted Entry, or (iii) Imported Water transported into the Authority, respectively; provided however, that any Water Importation Site which is solely for emergency use and is utilized for less than 30 days in any 365-day period shall be exempt from the requirement to be equipped with a Meter. The Authority may, in its sole discretion and on a case-by-case basis, exempt a Water Importation Site installed solely for emergency purposes in the event it must be used for more than 30 days in any 365-day period.

(b) *Accuracy Standards: Testing and Recalibration.* All Meters must be calibrated at least once every two (2) years. Any Meter measuring Authority Water must be between 97% and 103% accurate. Any Meter measuring other types of Water must be between 95% and 105% accurate. If the Authority at any time believes a Meter measuring Water, other than Authority Water, fails to meet the aforementioned accuracy standards, it may cause such Meter to be independently tested and the results thereof be reported to the Authority. If the Payor refuses to test a Meter measuring Water other than Authority Water after the Authority so requests, the Authority may have the Meter independently tested and recalibrated, including, if necessary, removing the Meter for testing and replacing it with a temporary Meter. Likewise,

should a Payor believe a Meter measuring Authority Water fails to meet the aforementioned accuracy standards, it may notify the Authority and request that such Meter be independently tested and the results thereof be reported to the Payor. If the testing reveals that the Meter fails to meet these accuracy standards, the total quantity of Water received by the Payor will be deemed to be the average daily consumption as measured by the Meter when in working order, and the Meter shall be corrected, repaired, or replaced with an accurate Meter. In such event, the Payor's payments of Fees to the Authority shall be adjusted (increased or decreased) for a period extending back to the time when the inaccuracy began, if such time is ascertainable; and if such time is not ascertainable, for a period extending back to the last test of the measuring equipment, the date of a material change in average daily use or 120 days, whichever is shorter. Any such adjustments shall be reflected on the Payor's first payment following the adjustment. The party that owns and is responsible for operation and maintenance of the Meter, pursuant to Section 5.03 of this Rate Order, shall pay the cost for any testing, recalibrating, removing or replacing a Meter or installing a temporary Meter, as applicable, unless the testing reveals that the Meter complies with the aforementioned accuracy standards, in which case the party requesting the testing shall pay such costs.

#### Section 4.02 Audits.

The Authority shall have the right to audit the Water measurements or calculations submitted by the Payor by reading any of the Payor's Meter(s) and reviewing the Payor's records. Upon written request, a Payor shall provide to the Authority, without charge, a copy of any agreement related to a Water Importation Site or Imported Water and all data and reports used to calculate the volume of Imported Water or Non-Exempt Well pumpage. Any such audit shall be conducted in accordance with audit procedures adopted and implemented by the Authority.

#### Section 4.03 Failure to Read Meter or Report Water Received.

In the event a Payor fails to read a Meter and enter such readings, as required by Section 3.03(b) hereof, after giving notice of such failure the Authority shall have the right to read the Meter. If the Authority reads a Meter under such conditions, the Payor will be billed at the Authority's cost for this service. The Payor's Fee may be based on the Authority's readings, regardless of when the Authority reads the meter, at the Authority's sole discretion. In addition, the Authority may impose a penalty of \$100 for any month in which such Water was received but not reported, or the amount of such Water reported was more than 10% below the actual amount of such Water received, as determined by the Authority.

#### Section 4.04 Annual Water Reports.

Prior to January 31st of each year, each Well owner shall submit to the Authority an Annual Groundwater Pumpage Report for the immediately preceding calendar year, in the same format as that required by the HGSD. In addition, each Well owner whose Well permit has been aggregated by the HGSD under the Authority shall, by April 1 of each year, report to the Authority the estimated amount of Water it will use during the next permit year.

**ARTICLE V  
AUTHORITY WATER USE AND CONVERSION**

**Section 5.01 Use of Authority Water by Converted Entities.**

Except as otherwise provided by this Section 5.01, all Converted Entities must use only Authority Water. In the event the Authority is unable to supply a Converted Entity with an adequate quantity of Authority Water to allow the Converted Entity to meet its demand, the Converted Entity may operate its Well(s) for the minimum duration necessary to meet its demand. However, a Converted Entity required to use its Well(s) to meet demand shall coordinate with the Authority and operate its water production and distribution system to maximize Authority Water consumption. In addition, a Converted Entity may exercise its Well(s) as necessary to maintain its/their proper operability; provided that the Converted Entity provides prior written notice of such necessity to the Authority Engineer detailing the duration and frequency of exercise the Well requires. Notwithstanding the foregoing, nothing in this Rate Order shall be interpreted as prohibiting a Converted Entity from taking steps necessary to respond to a life-safety emergency or to mitigate the impact thereof. The Authority will use its best efforts to provide reasonable assistance to Converted Entities in responding to a life-safety emergency as rapidly as practicable. As used this Section 5.01, a "life-safety emergency" shall include an explosion, fire or other event requiring unusual quantities of Water; sabotage, infection or contamination of Water; loss of pressure; disinfection failure; or another condition involving or relating to Water that could cause public illness, injury or loss of life.

**Section 5.02 Delivery Point Title to Authority Water.**

The Delivery Point for Authority Water supplied by the Authority to a Converted Entity shall be one (1) foot downstream of the pressure/flow control station and/or Meter installed by the Authority to serve such Converted Entity, whichever is furthest downstream, as further illustrated on Exhibit "B" attached hereto. Title to Authority Water delivered hereunder shall pass from the Authority to the Converted Entity at the Delivery Point. As such, the Authority shall be deemed to be in exclusive control and possession of Authority Water until the same shall have been delivered to the Delivery Point and the Converted Entity shall be deemed to be in exclusive control and possession of Authority Water after receipt of same at the Delivery Point. In addition, the risk of loss for Water delivered hereunder shall be and remain with the party having exclusive control and possession of the Water as provided herein.

**Section 5.03 Delivery Facilities.**

Each Converted Entity shall be responsible for conveying Authority Water from the Delivery Point to and into the Converted Entity's water system. The Authority, and not the Converted Entity, shall own, operate and maintain all of the equipment installed by the Authority upstream of the Delivery Point; the Converted Entity shall maintain all facilities, tanks, buildings, materials, wells, lines downstream and any other similar or related equipment or facilities related to the receipt and distribution of Authority Water, specifically including the Converted Entity's existing water production and distribution system. The Payor shall be responsible for operation and maintenance of all Meters and related appurtenances used to measure Water that is not Authority Water.



Section 5.04 Connection to Authority System.

No Person shall connect to the Authority System unless and until the Authority consents in writing to such connection. If the Authority, at its option, so consents, the connection shall be made in strict conformity with the terms and conditions of such Authority consent. The Authority shall furnish, install and operate, at its own expense, the necessary equipment and devices of standard type for measuring the quantity of Authority Water delivered by the Authority. Unless otherwise agreed to in writing by the Authority, the Converted Entity shall at all times, at its own expense, maintain an air gap, in accordance with a location and specifications approved by the Authority, downstream of the Delivery Point before Authority Water enters the Converted Entity's ground storage tank. Nothing in this Section 5.04 shall: (i) require a Converted Entity to obtain any additional consent from the Authority related to connections to the Authority System existing on the date this Rate Order is adopted by the Authority; or (ii) apply to a connection constructed by the Authority.

Section 5.05 Chloramine System.

(a) *Installation.* Each Converted Entity is required to: (i) receive permission from the Commission to use chloramine disinfection; (ii) receive approval from the Commission to construct its Chloramine System; (iii) install and begin use of its Chloramine System; and (iv) maintain use of its Chloramine System thereafter for so long as it is connected to the Authority's System. Failure to have a Chloramine System installed and operational by the date on which the Authority is prepared to provide Authority Water to the Converted Entity shall constitute a violation of this Rate Order subject to the penalties outlined in Sections 6.01-03 hereof.

(b) *Notice.* Prior to first (1<sup>st</sup>) using a Chloramine System, each Converted Entity (and each Person that receives water from a Converted Entity, for example and without limitation, via a water interconnect), and not the Authority, shall be responsible for: (i) notifying such Converted Entity's Water users about its conversion to and use of chloramine disinfection in compliance with the form and timeframe prescribed by the Commission; and (ii) complying with any applicable United States Environmental Protection Agency and Commission regulations and requirements, and any other applicable laws.

(c) *Certification.* Prior to first (1<sup>st</sup>) receiving Authority Water, each Converted Entity shall provide evidence to the Authority, in a form acceptable to the Authority, demonstrating that it has complied with the requirements of this Section 5.05.

Section 5.06 Quantity or Pressure of Water; Water Supply Agreements.

(a) Except as provided in this Section 5.06 and notwithstanding any other provision of this Rate Order or act of the Authority, the Authority does not and will not guarantee to any Person a specific quantity or pressure of Authority Water for any purpose whatsoever. In no case shall the Authority be liable for the failure or refusal to furnish Authority Water or any particular amount or pressure of water. In addition, under current Commission rules, Authority Water is not considered a source of water for purposes of complying with Commission rules absent an executed water supply agreement. The Authority will consider entering such agreements in a form substantially similar to that attached hereto as Exhibit "C".

(b) The terms of this Rate Order shall be incorporated by reference into each Water Supply Agreement as if fully set forth therein. The General Manager shall negotiate each Water Supply Agreement on the terms specified on the form of such agreement attached hereto, or on such other terms as the General Manager determines necessary or convenient after consultation with the Authority Engineer and general counsel to the Authority. The General Manager shall have authority to execute each Water Supply Agreement and fully bind the Authority thereto.

Section 5.07 Interruptions in Service.

Notwithstanding any provision of this Rate Order or any applicable agreement entered into by the Authority, the Authority may interrupt, reduce or cease deliveries of Authority Water if such interruption or reduction is necessary: (i) due to limitations in the Authority System or Houston's water system; (ii) in case of emergencies or breakdowns in the Authority System or Houston's water system; or (iii) for equipment installation, repairs, modifications, replacements, inspections, or maintenance on the Authority System or Houston's water system. When practicable, the Authority shall provide notice in advance of such interruptions, reductions or cessation. However, the Authority may interrupt, reduce or cease deliveries of Authority Water without notice if such interruption or reduction is necessary because of any emergency condition involving public health, safety or welfare or for purposes of the GRP. The Authority shall have no liability to any Person for any damages caused by any interruption in service or any failure (partial or total) to deliver Authority Water.

Section 5.08 Maintenance of Groundwater Wells and Interconnects.

Subject to the limitations provided in Section 5.01, Converted Entities: (i) to the extent reasonable, shall maintain their existing groundwater well(s) and other groundwater facilities; and (ii) are encouraged to maintain water line interconnect(s) with other political subdivision(s). If a Converted Entity determines that its groundwater well cannot reasonably be maintained, such Converted Entity shall immediately notify the Authority of such determination.

Section 5.09 Early Conversion: Inadequate Groundwater Facilities.

To the extent that a Person desires to purchase Authority Water on a wholesale basis for any reason in advance of the date that the Authority intends to provide Authority Water, such Person may submit a written request for Authority Water to the Authority, which request will be evaluated by the Authority, in its sole discretion, on economic feasibility, GRP cost, and other factors; and the Authority will determine, in its sole discretion, if such request can be satisfied, in what amount, and according to what time frame and terms.

Section 5.10 Implementation of GRP.

Pursuant to the Act, the Authority is authorized to develop, prepare, revise, adopt, implement, enforce, manage and participate in the GRP. The GRP may specify the measures to be taken to reduce groundwater withdrawals and the dates and extent to which Persons shall reduce or terminate withdrawal of groundwater and instead receive water from alternative sources. The Authority shall manage the GRP, including, without limitation, coordinating with the HGS&D and implementing the GRP's goals. In order to implement the GRP, the Authority may from time to time issue groundwater reduction requirements to Persons in order to: (a) comply with or exceed

HGSD groundwater reduction requirements; (b) allocate Authority Water among Persons, including requiring Persons to take Authority Water in amounts determined by the Authority, but that shall not exceed the Person's total demand; and/or (c) comply with the aggregated groundwater permit from the HGSD. All Persons shall comply with such orders and requirements of the Authority.

Section 5.11 Early-Conversion/Over-Conversion Credits.

The Authority shall receive and be entitled to any early-conversion or over-conversion credits issued by the HGSD related to Authority Water (or any Water other than groundwater) consumed or utilized by any Person within the GRP. No Person within the GRP shall obtain (or attempt to obtain) for such Person's own benefit or the benefit of anyone other than the Authority or sell (or attempt to sell), any such early-conversion or over-conversion credits. If requested by the Authority, Persons within the GRP shall cooperate with the Authority in order to enable the Authority to receive such early-conversion or over-conversion credits. Nothing in this Section 5.11 shall mean that the Authority will receive or be entitled to any credits resulting from any Person's participation in HGSD's Water-Wise program.

Section 5.12 Drought Contingency and Water Conservation Plans.

(a) *Drought Contingency Plans.* Prior to first receiving Authority Water, each Converted Entity shall certify to the Authority that it has adopted and implemented the drought contingency plan already required by 30 Texas Administrative Code ("TAC") Chapter 288. If a Converted Entity intends to resell Authority Water to a wholesale customer, the Converted Entity shall require its wholesale customer to also implement a drought contingency plan meeting the requirements of 30 TAC Chapter 288.

(b) *Water Conservation Plans.* By April 1, 2010 or prior to first receiving Authority Water, whichever occurs latest, each Converted Entity shall (i) implement a water conservation plan that complies with 30 TAC § 288.2(a), **whether or not the Person is otherwise currently required to implement such a plan;** and (ii) certify such fact to the Authority. If a Converted Entity intends to resell Authority Water to a wholesale customer, the Converted Entity shall require its wholesale customer to also implement a water conservation plan meeting the requirements of this Section 5.12(b).

(c) *Certifications.* The certifications required in Sections 5.12(a)-(b) stating that the drought contingency plan and/or water conservation plan, as applicable, has been adopted and implemented shall be signed by the Converted Entity's highest ranking officer. In addition, each Converted Entity certifying it has complied with Section 5.12(b) heretof shall enclose therewith a copy of the non-promotional rate structure (i.e. a rate structure that charges a higher rate as Water consumption increases) adopted under its water conservation plan.

Section 5.13 Compliance of Converted Entities' Water Systems.

In order to protect the Authority System, each Converted Entity's water system, shall be constructed and operated to comply with the rules promulgated by the Commission, or any successor agency. Should a condition in violation of these requirements be discovered, such Converted Entity shall promptly cure same. The Authority may conduct inspections from time to

time to determine that no conditions exist in such Converted Entity's water system and in connections to the Converted Entity's customers' premises which would or might adversely affect the Authority System.

Section 5.14 Termination and Reconnection of Service.

The Authority may take steps necessary to prevent a Converted Entity from continuing to receive Authority Water as a result of violating the terms of this Rate Order or other Authority rules. If a Converted Entity's ability to receive Authority Water is terminated by the Authority for any legally authorized cause, all charges then due and a reconnection fee shall be paid prior to service being restored. In the event the Authority deems it necessary to remove a Converted Entity's Meter to enforce such termination, a reinstallation fee shall be paid prior to service being restored, which fee is in addition to any other fees imposed (including, without limitation, the reconnection fee). The amount of the reconnection and reinstallation fees described above shall equal the actual cost incurred by the Authority to reconnect service and/or remove and reinstall the Converted Entity's Meter, respectively.

**ARTICLE VI  
AUTHORITY RULES AND PENALTIES**

Section 6.01 Rate Order Constitutes Authority Rule.

All of the terms, conditions and duties imposed upon any Person under this Rate Order shall constitute rules of the Authority. As such, failure by any Person to comply with this Rate Order shall be a violation of the Authority's rules. Such violations shall include, but are not limited to any Person's failure to:

- (a) read any Meter(s) not measuring Authority Water and accurately report such readings to the Authority;
- (b) allow the Authority to audit quantities of Well Pumpage or Imported Water, read any Meter(s), or test and recalibrate, if necessary, any Meter(s);
- (c) maintain any Meter(s) not measuring Authority Water at the applicable accuracy standard;
- (d) pay all Fees when due; and
- (e) comply with the GRP and all directives and requirements issued by the Authority related to the GRP, including all requirements related to the amounts of Authority Water a Converted Entity must take from the Authority.

Section 6.02 Civil Penalty.

A Person is subject to a civil penalty of up to \$10,000 for each violation or each day of a continuing violation if the Person: (i) violates any provision of this Rate Order, the GRP or, any rules contained in either of same; (ii) makes unauthorized use of Authority services or facilities; or (iii) causes damage to Authority facilities by using such facilities in a manner or for a purpose contrary to the purpose for which such facilities were designed. The Authority shall set the

amount of the penalty based on (a) the severity of the offense; (b) whether such violation was willful, knowing, reckless or inadvertent; (c) the history of offenses by such Person; and (d) the damages sustained by the Authority. The Authority may bring an action to recover the penalty in a district court in the county where the violation occurred. Any such penalties shall be paid to the Authority.

Section 6.03 Termination for Rate Order or GRP Violations.

Any Person who violates any provision of this Rate Order or the GRP shall be subject to being removed from the GRP or having service terminated; provided, however, that prior to such removal or termination for violations that do not constitute a hazard to health or safety or endanger the integrity of the Authority's system or adversely affect the GRP, the Authority shall give written notice to such Person of the pending removal or disconnection, and such notice shall contain a timeframe during which the Person may contest, explain or correct the violation. In the event a Person's violations create a hazard to health or safety or endanger the integrity of the Authority's system or adversely affect the GRP, the Authority may terminate service to such Person without prior notice; provided that the Authority gives notice to such Person within 24 hours after service has been terminated. Removal from the GRP or termination of service shall be in addition to any other penalties that may be imposed by the Authority under this Rate Order and remedies that may otherwise be available to the Authority.

Section 6.04 Injunction.

The Authority may bring an action for injunctive relief in a district court in the county where a violation of an Authority rule or order occurs or is threatened to occur. The Authority may bring an action for a civil penalty and injunctive relief in the same proceeding.

Section 6.05 Penalties Passed through to Violator.

In the event the Authority is penalized for any reason and the cause for such penalty can be attributed to the action or inaction of any Person, to the maximum extent possible such penalty shall be passed through to such Person.

**ARTICLE VII  
MISCELLANEOUS**

Section 7.01 Right to Enter Land.

In addition to any other rights that the Authority may have (by easement or otherwise), the Authority and its representatives shall have the authority to enter upon any Payor's property or any property where a Payor's Meter is located at any reasonable time in order to: (1) inspect, repair, install, test, maintain or operate any Authority facilities located on a District's water plant site(s) or to test or monitor the Authority Water delivered; (2) audit the Water measurements submitted to the Authority; (3) measure Water in the event a Payor has failed to do so; (4) inspect and investigate conditions relating to the quality of Water or compliance with any Authority rule, regulation, permit or order. If requested by the Authority, Authority Engineer or Authority Operator, a Payor shall immediately cooperate with the Authority, Authority Engineer or Authority Operator to allow the Authority, Authority Engineer or Authority Operator to enter such

site(s) for any of such purposes. Unless the Authority has reason to believe that a Payor has not submitted correct Water data or an emergency condition involving the public health, safety or welfare exists, the Authority will provide the Payor a minimum of one (1) business day's notice of its intent to enter upon the Payor's land or any property where a Payor's Meter is located. Authority representatives entering private property pursuant to this Section shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection and shall notify any occupant or management of their presence and shall exhibit proper credentials.

Section 7.02 Amendments to Rate Order and GRP.

As determined necessary by the Authority, the Authority reserves the right to modify from time to time the GRP and the rates, charges, fees or any other terms of this Rate Order.

Section 7.03 Authority Designee.

The Authority hereby designates its General Manager, the Board President and Vice President, the Authority Engineer, the Authority's Financial Assistant and the Authority Operator as its designees with authority to exercise the Authority's powers under its GRP and this Rate Order. In addition, the General Manager may take any action on behalf of the Authority necessary and convenient to accomplish the purposes of this Rate Order and the GRP.

Section 7.04 Refusal to Add Persons to GRP.

The Authority, at its sole discretion, may refuse to add Persons (and their wells) to the GRP, including, without limitation, any Person seeking to be re-admitted to the GRP who at any time had been removed from the GRP.

Section 7.05 Compliance with Other Rules.

Except as specifically provided in this Rate Order, nothing herein shall affect any Person's duty to ensure it complies with all applicable rules, regulations, ordinances or laws governing such Person, specifically including without limitation those rules, regulations, ordinances or laws promulgated by the State of Texas, the Commission, the Texas Water Development Board, Harris County, HGSD and Houston.

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**EXHIBIT "A"**  
*Pricing Policy*

Exhibit "A"  
North Harris County Regional Water Authority Rate Order



UPDATED 12/7/15

**UPDATED PRICING POLICY  
OF THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
(Effective April 1, 2016)**

This Updated Pricing Policy of the North Harris County Regional Water Authority (this "Updated Pricing Policy") is intended to define the Cost of Water paid to the Authority for Water used within the Authority and is an integral part of the Authority's Rate Order (the "Rate Order"), adopted on October 5, 2009. Unless specifically defined otherwise, capitalized terms in this Updated Pricing Policy shall have the meanings defined in the Rate Order.

Effective April 1, 2016, the following Cost of Water will apply to and be due by users of Water within the Authority:

Authority Water	\$2.85 per 1,000 gallons
Water pumped from a Non-Exempt Well	\$2.40 per 1,000 gallons
Imported Water	\$2.40 per 1,000 gallons

In addition to the above Fees, the Authority shall continue to provide a credit to each Converted Entity that constructed a Chloramine System prior to December 1, 2015 in accordance with the Authority's prior policy and procedures. Such credits shall be calculated as outlined below. Furthermore, any credits for capital contributions paid to the Authority by a Payor shall continue as provided in the applicable written agreement executed between the Payor and the Authority.

The Authority may revise the above Fees and modify, delete or add any credit(s), subject to the provisions of any applicable written agreements, if and when necessary. Payors will be notified of any such changes.

Chloramination Credits

The annual Chloramination Credit shall be calculated by amortizing the cost of the Chloramine System at 6% interest over a 30-year period, which shall begin the year the facilities are placed in service. The annual Chloramination Credit amount will be divided by 12 and the resultant amount will be credited monthly toward the fees payable to the Authority for the Water used by the Converted Entity.

New/Replacement Facilities

In order to help facilitate the effective implementation of the GRP, any Payor who anticipates the construction of new or replacement Water production, storage and/or treatment facilities and/or related appurtenances shall advise the Authority of those plans as early in the process as possible. The Authority will review such proposed improvements for conformity with the goals of the GRP and the possibility of the Authority being able to address those needs (i.e., by providing water in lieu of the Payor having to construct or replace facilities). Within the limits of its jurisdiction, the Authority will regulate construction of such facilities to accomplish the goals of the GRP.

Policy Implementation

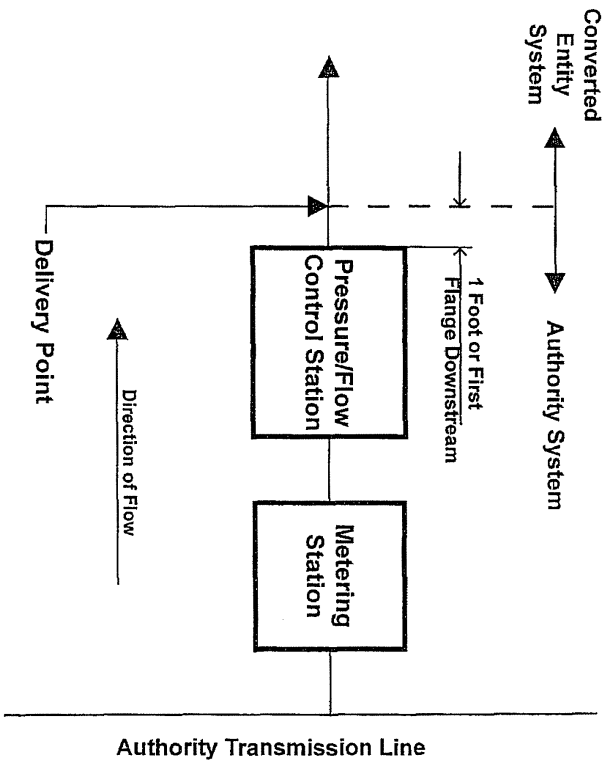
The General Manager is authorized to take any actions on behalf of the Authority necessary and convenient to accomplish the purposes of this Updated Pricing Policy. The General Manager is also authorized to take actions necessary to comply with any special credit provisions provided under any agreements that may exist between a Payor and the Authority.



**EXHIBIT "B"**  
***Delivery Point***

Exhibit "B"  
North Harris County Regional Water Authority Rate Order

**EXHIBIT B**  
**SCHEMATIC LAYOUT OF LOCATION**  
**OF DELIVERY POINT**



NOT TO SCALE

**EXHIBIT "C"**  
*Form of Water Supply Agreement*

**WATER SUPPLY AGREEMENT**

WHEREAS, [Buyer name], a [entity type] (the "Buyer") has requested this Water Supply Agreement (the "Agreement") from the North Harris County Regional Water Authority (the "Authority") so Buyer may maintain compliance with the Texas Commission on Environmental Quality's requirements related to Buyer's minimum water supply capacity;

WHEREAS, Buyer desires to purchase and the Authority desires to sell the volume of water specified below in the manner and on the terms herein specified;

NOW, THEREFORE, for and in consideration of the mutual promises and consideration hereinafter described, the Authority and Buyer hereby agree as follows:

1. **Purchase and Sale of Water.** Buyer shall buy and receive from the Authority, and the Authority shall sell and deliver to the Buyer, at the Delivery Point, a volume of Authority Water between \_\_\_ million gallons per day ("MGD") and \_\_\_ MGD.
2. **Flow Rate, Pressure and Disinfection Method.** The Authority shall deliver Authority Water at a rate not to exceed \_\_\_ gallons per hour and at pressure adequate to discharge Authority Water into Buyer's ground storage tank. To facilitate the operation of both the Authority System and Buyer's water production and distribution system, Buyer shall accept at the Delivery Point \_\_\_ MGD average daily flow and \_\_\_ MGD during peak day flow. Both the Authority and Buyer shall disinfect Authority Water using chloramines.

3. **Contact Information.** The contact information for Buyer for all correspondence related to this Agreement shall be:

Buyer	With a copy to:
[Name]	[Name]
[Street]	[Street]
[City, State Zip]	[City, State Zip]
[Phone #]	[Phone #]
[Fax #] Fax	[Fax #] Fax

4. **Term.** This Agreement shall be effective on the date on which this Agreement is signed by both parties hereto and shall end on January 1, 2040.

5. **Other Terms Incorporated by Reference.** The Authority's Standard Terms of Water Supply Agreement (the "Standard Terms") and Rate Order, as it may be amended from time to time, are incorporated by reference and made apart of this Agreement as though fully set forth herein. A copy of the Standard Terms is attached hereto as Appendix "1". Unless otherwise defined, capitalized terms in this Agreement and the Standard Terms shall have the meaning assigned in the Rate Order.

The parties hereto have caused this Agreement to be duly executed effective as of the date of the latest signature hereon.

Buyer:	Authority:
Name: _____	Jimmie Schindewolf
Title: _____	General Manager
Attest:	Date: _____
Name: _____	
Title: _____	
Date: _____	

APPENDIX "I"

Standard Terms of Water Supply Agreement

Notices. All notices, consents, or other communications required hereunder shall be in writing and shall be sufficiently given (i) if addressed and mailed by first-class certified or registered mail, postage prepaid, or (ii) upon receipt of notice given by facsimile, overnight courier or personal delivery, in either case as follows:
If to the Buyer to the address and/or fax number listed in Paragraph 3 of the Water Supply Agreement.

If to the Authority:
Jimmie Schindewolf General Manager
North Harris County Regional Water Authority
3648 FM 1960 West Suite 110
Houston, Texas 77008
(Fax) 281-440-4104
If to a party to:
Robin S. Bobbitt
Johnson, Redcliffe Perry & Bobbitt PLLC
1001 McKinney, Suite 1000
Houston, Texas 77002
(Fax) 713-537-1513

Binding Effect: Assignment. The Agreement shall inure to the benefit of and shall be binding upon, the Authority, Buyer and their respective successors and assigns authorized by the terms of the Agreement. Neither party may assign the Agreement or its rights and responsibilities hereunder to a third party without the prior written consent of the other party to the Agreement.

Severability. In the event any provision of the Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision of such Agreement and the Agreement shall be read as though the invalidated or unenforceable provision were not present.

Governing Law. The Agreement shall be governed by, and construed in accordance with, the laws of the State of Texas, including, but not limited to, the rules and regulations of the Commission. Venue shall be in Harris County, Texas.

Third-Party Benefit. Nothing in the Agreement, express or implied, is intended or shall be construed to confer upon or give to any person, other than the Authority and the Buyer involved, any right, remedy or claim under or by reason of the Agreement; and the covenants and agreements contained therein are and shall be for the sole and exclusive benefit of the parties thereto or their successors and assigns.

Integration. The Water Supply

Agreement, these Standard Terms and the Rate Order constitute the entire agreement between the Authority and Buyer and shall completely and fully supersede all prior understandings or agreements, whether oral or written, relating to the subject matter hereof.
Hearings. Section and subsection hearings in the Agreement are included for convenience of reference only and will not constitute a part of the Agreement for any purpose.

Updates to Authority Rules. The sale of Authority Water under the Agreement shall be subject to all of the provisions of the rules, rates and regulations established and amended from time to time by the Authority's Board of Directors or its General Manager, concerning rule review and adjustment, generally applicable temporary interruptions of service, cut-off, then for changes, and all other generally-applicable matters now or hereafter prescribed by resolution of the Authority or delegated to the Authority's General Manager, including rules required by or promulgated under the Authority's Rate Order or GRP; provided that no amendment to or waiver of any provision of the Agreement, nor consent thereto, will be effective unless the same is in writing executed by both the Authority and the Buyer. Such amendment, waiver or consent will be effective only in the specific instance and for the specific purpose for which given. Nothing in this section shall prohibit any change to these Standard Terms of Water Supply Agreement required to comply with an order or a regulation of any State or Federal agency with jurisdiction over the Authority, and any such change shall be binding on the Buyer.

Waiver. Failure of either party at any time to require performance of any provision of the Agreement shall not limit the party's right to enforce such provision, nor shall any waiver of any breach of any provision constitute a waiver of any succeeding breach of that provision or a waiver of that provision itself.
Counterparts. The Agreement may be executed in any number of counterparts, each of which, when so executed and delivered, shall be an original; but such counterparts shall together constitute but one and the same Agreement.

Consequential Damages. In no event shall the parties or any of their affiliates, by reason of any of their respective acts or omissions relating to any of their obligations under the Agreement, be such acts or omissions are intentional, be

liable, whether in contract, tort, misrepresentation, warranty, negligence (but not gross negligence), strict liability or otherwise, for any special, indirect, incidental or consequential damages arising out of or in connection with the Agreement or the performance or breach thereof; provided however that nothing in the foregoing statement shall be construed to be a waiver of sovereign or governmental immunity protections or defenses to which the Authority or Buyer may otherwise be entitled.

Relationship of the Parties. The Authority and a Buyer shall not be deemed in a relationship of partners or joint ventures by reason of the Agreement or the activities taken pursuant hereto. The Agreement is intended to secure and provide for the services of each party hereto as an independent contractor.

Further Assurances. In fulfillment of the terms and conditions of the Agreement, each of the parties shall cooperate in good faith with each other in order to achieve the performance of their respective obligations under the Agreement.

Force Majeure. In the event either Buyer or the Authority (a "Party") is rendered unable, wholly or in part, by Force Majeure, to carry out any of its obligations under this Agreement, it is agreed that upon such Party's giving notice and full particulars of such Force Majeure in writing to the other Party as soon as possible after the occurrence of the Force Majeure, the obligations of the Party giving such notice, to the extent it is affected by Force Majeure and to the extent that due diligence is being used to resume performance, shall be suspended for the duration of the Force Majeure. Such cause shall, as far as possible, be remedied with all reasonable dispatch.

The term "Force Majeure," as used herein, shall include, but not be limited to, acts of God, strikes, lockouts or other industrial disturbances, acts of the public enemy, war, acts of terrorism, bioattacks, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, droughts, famines, hurricanes, arrests and restraints of government and people, explosions, breakage or damage to machinery, pipelines or canals, and any other inability of either Party, whether similar to those enumerated or otherwise, and not within the control of the Party claiming such inability, which by the exercise of due diligence and care such Party could not have avoided.

North Harris County Regional Water Authority Rate Order Exhibit "C"

Project Description

Description of Project Need (for example, is the project needed to address a current compliance issue, avoid potential compliance issues, extend service, expand capacity, etc.): The North Harris County Regional Water Authority (NHCRWA) has entered into contractual agreements with the City of Houston (COH) to purchase treated surface water from the City's Northeast Water Purification Plant (NEWPP) for use in complying with the Harris-Galveston Subsidence District regulatory conversion requirements as detailed in the NHCRWA's Groundwater Reduction Plan. The NEWPP is located adjacent to the western shoreline of Lake Houston near the Sam Houston Toll Road (Beltway 8).

Provide a detailed description of the proposed project. The description should include a discussion of the current service area, existing system facilities; and an adequate description of all proposed project elements (include a bulleted list of new project elements/components): The COH, the NHCRWA and the Central Harris County Regional Water Authority (CHCRWA) propose to design and construct a 108" shared transmission pipeline approximately 17 miles in length from the NEWPP to just west of IH 45 (Second Source Line). The proposed project will consist of the following major components and appurtenances:

- o Approximately 1,700 feet of 120-inch water line
- o Approximately 15 miles of 108-inch water line
- o Two (2) interconnects, one (1) 54-inch and a 66-inch, for a total length of approximately 1.6 miles between an existing 66-inch water line and the proposed 108-inch line

## Water Made Available

New Supply: 115,118 (acre-feet/year)/\$117,855,000 (capital cost)

New Conservation Savings: 0 (acre-feet/year)/\$0 (capital cost)

New Reuse Supply: 0 (acre-feet/year)/\$0 (capital cost)

Maintenance of Current Supply: 0 (acre-feet/year)/\$0 (capital cost)

## SWIFT

SWIFT Funding Type

Low Interest Loan: \$117855000.00

Is this request for multi-year funding or phased commitments?: Y

As an applicant for financial assistance from SWIFT, I acknowledge that this project must comply with any applicable legal obligations in federal law related to contracting with disadvantaged business enterprises.: Y

As an applicant for financial assistance from SWIFT, I acknowledge that this project must comply with applicable legal obligations in state law (Texas Government Code Chapter 2161 and Texas Administrative Code Chapter 20, Subchapter B) related to contracting with historically underutilized businesses.: Y

**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**

**Projected Debt Service With 2015-2021 TWDB Swift Bond Financings and Projected Future Financing**

5/9/2016  
 OutlineForSwiftBond2015-2021

Year	Existing Debt Service	\$113,170,000 Series 2016 (a)	\$67,970,000 Series 2016 (b)	\$13,930,000 Series 2016 (c)	\$48,600,000 Series 2016 CIP	\$388,565,000 Series 2017 (d)	\$379,950,000 Series 2018 (d)	\$170,000,000 Series 2019 GRP	\$80,470,000 Series 2019 (d)	\$100,000,000 Series 2020 GRP	\$36,700,000 Series 2020 (d)	\$100,000,000 Series 2021 GRP	\$17,910,000 Series 2021 (d)	\$100,000,000 Series 2022 GRP	TOTAL BONDED DEBT SERVICE
2015	\$30,826,973					\$3,011,379	\$2,944,613	\$7,650,000	\$623,643	\$4,500,000	\$284,425	\$4,500,000	\$1,38,803	\$100,000,000	\$30,826,973
2016	\$32,722,899		\$2,134,762	\$437,634	\$1,701,000	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$45,566,594
2017	\$34,726,395	\$3,555,424	\$3,495,550	\$718,970	\$1,701,000	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$69,496,407
2018	\$34,732,935	\$5,821,930	\$3,496,325	\$714,835	\$1,701,000	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$94,468,787
2019	\$34,742,126	\$5,822,435	\$3,496,795	\$715,555	\$1,701,000	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$102,795,244
2020	\$34,749,680	\$5,822,435	\$3,496,960	\$715,985	\$2,948,758	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$110,298,473
2021	\$34,748,497	\$5,824,095	\$3,495,675	\$716,125	\$2,948,758	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$115,598,498
2022	\$34,756,059	\$5,821,445	\$3,496,085	\$715,975	\$2,948,758	\$20,081,410	\$19,636,178	\$7,650,000	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$115,586,973
2023	\$34,764,868	\$5,821,475	\$3,495,045	\$715,535	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$119,408,967
2024	\$34,777,619	\$5,824,040	\$3,497,555	\$719,805	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$121,674,966
2025	\$34,793,292	\$5,823,995	\$3,498,470	\$718,640	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$123,934,247
2026	\$34,794,182	\$5,826,340	\$3,497,790	\$717,185	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,169,250
2027	\$34,789,025	\$5,825,930	\$3,495,515	\$715,440	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,169,663
2028	\$34,794,945	\$5,822,765	\$3,496,645	\$718,405	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,176,513
2029	\$34,803,762	\$5,821,845	\$3,496,035	\$715,935	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,181,330
2030	\$34,807,380	\$5,823,025	\$3,498,685	\$718,175	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,191,018
2031	\$34,816,004	\$5,826,160	\$3,494,450	\$714,980	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,195,347
2032	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2033	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2034	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2035	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2036	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2037	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2038	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2039	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2040	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2041	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2042	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2043	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2044	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2045	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2046	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2047	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2048	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2049	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2050	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
2051	\$34,823,914	\$5,826,105	\$3,498,475	\$716,495	\$2,948,758	\$20,081,410	\$19,636,178	\$11,464,635	\$4,158,766	\$4,500,000	\$1,896,691	\$4,500,000	\$925,606	\$4,500,000	\$126,208,742
<b>Total</b>	\$801,116,282	\$172,451,679	\$103,544,672	\$21,226,569	\$80,522,953	\$585,372,261	\$572,393,784	\$324,865,869	\$121,227,866	\$191,097,570	\$55,288,464	\$191,097,570	\$26,981,373	\$191,097,570	\$3,438,284,482

a) Reflects 2016 Bonds for Northeast Plant Expansion, Second Source Line, Initial Phase 2025 Transmission System, and Initial Phase 2025 Distribution System approved by TWDB in 2015.

b) Reflects 2016 Bonds for Second Source Line Phase 1 included in the NHCRA's 2016 Abridged Application.

c) Reflects 2016 Bonds for the 2025 Distribution System - 249 Pumping Station project included in the NHCRA's 2016 Abridged Application.

d) Reflects TWDB Bonds to be issued in 2017, 2018, 2019, 2020, and 2021 respectively. See schedule entitled TWDB SWIFT Bonds plus CIP Bonds and GRP Bonds by year.

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**SEVENTH SUPPLEMENTAL RESOLUTION**

authorizing the issuance of

**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**

**SENIOR LIEN REVENUE BONDS, SERIES 2016**

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\_\_\_\_\_, 2016



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STATE OF TEXAS §  
§  
NORTH HARRIS COUNTY §  
REGIONAL WATER AUTHORITY §

SEVENTH SUPPLEMENTAL RESOLUTION AUTHORIZING ISSUANCE OF NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY SENIOR LIEN REVENUE BONDS; PRESCRIBING THE TERMS AND CONDITIONS THEREOF; PROVIDING FOR PAYMENT THEREOF AND THE SECURITY THEREFOR; MAKING OTHER PROVISIONS REGARDING SUCH BONDS; AND CONTAINING OTHER MATTERS RELATED THERETO

BE IT RESOLVED AND ORDERED BY THE BOARD OF DIRECTORS OF NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY:

ARTICLE I

FINDINGS AND DETERMINATIONS

Section 1.1 Findings and Determinations. It is hereby officially found and determined that:

(a) Pursuant to a Master Resolution adopted on May 19, 2003 (the “Master Resolution”) the Board of Directors (the “Board”) of the North Harris County Regional Water Authority (the “Authority”) provided for the establishment of a financing program for revenue-supported obligations of the Authority issued to carry out the powers and authority conferred by the Act.

(b) The Master Resolution authorized the adoption of Supplemental Resolutions (hereinafter defined) to provide for the authorization, issuance, sale and delivery, and to establish certain terms (including the form, characteristics, interest rate(s), and provisions of payment and redemption) of each series or installment of Senior Lien Obligations (hereinafter defined) issued thereunder.

(c) The Board has previously authorized the issuance of the Previously Issued Senior Lien Obligations (hereinafter defined) pursuant to the Master Resolution.

(d) The Board has determined that it is in the best interest of the Authority to issue a series of bonds as Senior Lien Obligations as herein provided, which Senior Lien Obligations shall be issued pursuant to the Master Resolution and particularly Section 3.4 thereof.

[End of Article I]

## ARTICLE II

### AUTHORITY AND DEFINITIONS

Section 2.1 Supplemental Resolution. This Resolution is authorized pursuant to Sections 3.1 and 6.5 of the Master Resolution.

Section 2.2 Definitions. Capitalized terms used in this Resolution and not otherwise defined herein shall have the meanings assigned to such terms in Section 2.1 of the Master Resolution. In addition, capitalized terms used in this Resolution and in the recitals hereto shall have the meanings set forth in Exhibit A unless the context or use clearly indicates another or different meaning or intent and such definitions shall be equally applicable to both the singular and plural forms of the terms and words herein defined.

Section 2.3 Rules of Construction. For all purposes of this Resolution, unless the context requires otherwise, all references to designated Articles, Sections and other subdivisions are to articles, sections and other subdivisions of this Resolution. References to any constitutional, statutory or regulatory provision means such provision as it exists on the date this Resolution is adopted by the Board and any future amendment thereto or successor provision thereof.

Section 2.4 Interpretations. All terms defined herein and all pronouns used in this Resolution shall be deemed to apply equally to singular and plural and to all genders. The titles and headings of the articles and sections of this Resolution and the Table of Contents of this Resolution have been inserted for convenience of reference only and are not to be considered a part hereof and shall not in any way modify or restrict any of the terms or provisions hereof. This Resolution and all the terms and provisions hereof shall be liberally construed to effectuate the purposes set forth herein and to sustain the validity of the Series 2016 Bonds and the validity of the lien on and pledge of the Net Revenues to secure the payment of the Series 2016 Bonds.

[End of Article II]

ARTICLE III

AUTHORIZATION AND TERMS OF THE SERIES 2016 BONDS

Section 3.1 Authorization, Terms and Purpose. In accordance with and subject to the terms, conditions and limitations established in the Master Resolution and this Resolution, a series of Bonds, which shall be designated as the “NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY SENIOR LIEN REVENUE BONDS, SERIES 2016”, is hereby authorized to be issued in an aggregate principal amount of \_\_\_\_\_ AND NO/100 DOLLARS (\$\_\_\_\_\_). The Series 2016 Bonds shall be issued for the purposes of (a) financing the design, acquisition, and construction of the System, including: (i) the Authority’s 2025 Distribution System and (ii) a shared transmission pipeline (Second Source Transmission Line Phase I); (b) funding a debt service reserve fund or a Reserve Fund Obligation; (c) funding capitalized interest; and (d) paying costs of issuance of the Series 2016 Bonds, all under and pursuant to the authority of the Act and all other applicable law.

Section 3.2 Interest Payment Dates, Interest Rates and Maturities.

(a) The Bonds shall be dated \_\_\_\_\_, 2016. The Bonds shall be issued in fully registered form, without coupons, in the denomination of \$5,000 or any integral multiple thereof (an “Authorized Denomination”). The Bonds shall be numbered separately from R-1 upward.

(b) The Bonds shall mature on [December 15] in the years and in the principal amounts and shall bear interest at the rates set forth in the following schedule:

<u>Year</u>	<u>Principal Amounts (\$)</u>	<u>Interest Rates (%)</u>	<u>Year</u>	<u>Principal Amounts (\$)</u>	<u>Interest Rates (%)</u>
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(c) Interest shall accrue and be paid each Bond respectively until its maturity or prior redemption, from the Issuance Date or the most recent interest payment date to which interest has been paid or provided for at the rates set forth above. Such interest

shall be payable semiannually until maturity or prior redemption on each Interest Payment Date, computed on the basis of a 360-day year of twelve 30-day months.

(d) If interest on any Series 2016 Bond is not paid on any Interest Payment Date and continues unpaid for thirty (30) days thereafter, the Paying Agent/Registrar shall establish a new record date for the payment of such interest, to be known as a "Special Record Date." The Paying Agent/Registrar shall establish a Special Record Date when funds to make such interest payment are received from or on behalf of the Authority. Such Special Record Date shall be fifteen (15) days prior to the date fixed for payment of such past due interest, and notice of the date of payment and the Special Record Date shall be sent by United States mail, first class, postage prepaid, not later than five (5) days prior to the Special Record Date, to each affected Registered Owner as of the close of business on the day prior to mailing of such notice.

Section 3.3 Redemption Prior to Maturity. The Bonds shall be subject to redemption before their scheduled maturity only as provided in this Section.

(a) *Mandatory Redemption*. The Bonds shall not be subject to mandatory redemption prior to their scheduled maturity.

(b) *Optional Redemption*. The Authority reserves the right and option to redeem Bonds maturing on and after [December 15, 20\_\_], in inverse order of maturity, in whole or in part before their respective scheduled maturity dates, on [December 15, 20\_\_], or on any date thereafter (such redemption date or dates to be fixed by the Authority), at a price equal to the principal amount of the Series 2016 Bonds so called for redemption plus accrued interest to the date fixed for redemption. The Authority, at least forty-five (45) days before the redemption date, shall notify the Paying Agent/Registrar of such redemption date and of the principal amount of Series 2016 Bonds to be redeemed.

(c) *Partial Redemption*.

(i) If less than all of the Series 2016 Bonds are to be redeemed, the Authority shall determine the maturity or maturities to be redeemed and shall direct the Paying Agent/Registrar to call by lot the Series 2016 Bonds or portion thereof, within such maturity or maturities and in such principal amounts for redemption.

(ii) A portion of a single Series 2016 Bond of a denomination greater than \$5,000 may be redeemed, but only in a principal amount equal to \$5,000 or any integral multiple thereof. If such a Series 2016 Bond is to be partially redeemed, the Paying Agent/Registrar shall assign a separate number for each of \$5,000 portion of Series 2016 Bonds and sell the portion or portions of the Series 2016 Bonds to be redeemed by lot or by any other customary method that results in a random selection.

(iii) Upon surrender of any Series 2016 Bond for redemption in part, the Paying Agent/Registrar, in accordance with the provisions of this Resolution,

shall authenticate and deliver an exchange Series 2016 Bond or Bonds in an aggregate principal amount equal to the unredeemed portion of the Series 2016 Bond so surrendered, such exchange being without charge notwithstanding any provision herein to the contrary.

(iv) The Paying Agent/Registrar shall promptly notify the Authority in writing of the principal amount to be redeemed of any Series 2016 Bond as to which only a portion thereof is to be redeemed.

Section 3.4 Manner of Payment, Characteristics, Execution, and Authentication. The Paying Agent/Registrar shall be the paying agent for the Series 2016 Bonds. The Series 2016 Bonds shall be payable, shall have the characteristics, shall be signed and executed, shall be sealed, and shall be authenticated, all as provided and in the manner indicated in the FORM OF SERIES 2016 BONDS attached hereto as Exhibit B. The Series 2016 Bonds initially delivered shall also have attached or affixed thereto the registration certificate of the Comptroller of Public Accounts of the State of Texas. If any person serving as an officer of the Authority, whose manual or facsimile signature shall appear on the Series 2016 Bonds, shall cease to be such officer before the authentication of the Series 2016 Bonds or before the delivery of any Series 2016 Bond, such person's manual or facsimile signature shall nevertheless be valid and sufficient for all purposes as if such person had remained in such office on the date of authentication or delivery of such Series 2016 Bond.

If the date of payment of principal of or interest on any Series 2016 Bond is not a Business Day, then the date for such payment shall be the next succeeding Business Day, and payment on such date shall have the same force and effect as if made on the original date such payment was due.

Any portion of the text of any Series 2016 Bonds may be set forth on the reverse thereof, with an appropriate reference thereto on the face of the Series 2016 Bond. The definitive Series 2016 Bonds shall be printed, lithographed, engraved, or typewritten or produced by any combination of these methods, or produced in any other manner, all as determined by the officers executing such Series 2016 Bonds as evidenced by their execution thereof, but the initial Series 2016 Bonds submitted to the Attorney General of Texas may be typewritten, photocopied, or otherwise reproduced.

Section 3.5 Ownership. The Authority, the Paying Agent/Registrar and any other person may treat the person in whose name any Series 2016 Bond is registered as the absolute owner of such Series 2016 Bond for the purpose of mailing payment of the principal and premium, if any, thereof, and for the further purpose of making payment of interest thereon, for the purpose of giving notice to the Owners of the Series 2016 Bonds, and for all other purposes, whether or not such Series 2016 Bond is overdue, and neither the Authority nor the Paying Agent/Registrar shall be bound by any notice or knowledge to the contrary. All payments made to the person deemed to be the Owner of any Series 2016 Bond in accordance with this Section shall be valid and effectual and shall discharge the liability of the Authority and the Paying Agent/Registrar upon such Series 2016 Bond to the extent of the sums paid.



Section 3.6 Registration, Transfer, and Exchange. So long as any Series 2016 Bonds remain Outstanding, the Paying Agent/Registrar shall keep the Register at its principal corporate trust office, in which, subject to such reasonable regulations as it may prescribe, the Paying Agent/Registrar shall provide for the registration and transfer of the Series 2016 Bonds in accordance with the terms of this Resolution.

Each Series 2016 Bond shall be transferable only upon presentation and surrender thereof at the principal corporate trust office of the Paying Agent/Registrar, duly endorsed for transfer, or accompanied by an assignment duly executed by the Registered Owner or his authorized representative in form satisfactory to the Paying Agent/Registrar. Upon due presentation of any Series 2016 Bond for transfer, the Paying Agent/Registrar shall authenticate and deliver in exchange therefor, within seventy-two (72) hours after such presentation, a new Series 2016 Bond or Series 2016 Bonds, registered in the name of the transferee or transferees, in authorized denominations and of the same maturity and aggregate principal amount and bearing interest at the same rate as the Series 2016 Bond or Series 2016 Bonds so presented.

Each Series 2016 Bond shall be exchangeable upon presentation and surrender thereof at the principal corporate trust office of the Paying Agent/Registrar for a Series 2016 Bond or Series 2016 Bonds of the same maturity and bearing interest at the same rate and in any authorized denomination, in an aggregate principal amount equal to the unpaid principal amount of the Series 2016 Bond or Series 2016 Bonds presented for exchange. The Paying Agent/Registrar shall be and is hereby authorized to authenticate and deliver exchange Series 2016 Bonds in accordance with the provisions of this Section. Each exchanged or replaced Series 2016 Bond delivered by the Paying Agent/Registrar in accordance with this Section shall be entitled to the benefits and security of this Resolution to the same extent as the Series 2016 Bond or Series 2016 Bonds in lieu of which such Series 2016 Bond is delivered.

The Authority or the Paying Agent/Registrar may require the Owner of any Series 2016 Bond to pay a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with the transfer or exchange of such Series 2016 Bond. Any fee or charge of the Paying Agent/Registrar for such transfer or exchange shall be paid by the Authority.

Section 3.7 Book-Entry Only System. The Series 2016 Bonds shall be initially issued in the form of a separate single fully registered bond for each of the maturities thereof. Upon initial issuance, the ownership of each such Series 2016 Bond shall be registered in the name of Cede & Co., as nominee of DTC, and except as provided in Section 3.9 hereof, all of the Outstanding Series 2016 Bonds shall be registered in the name of Cede & Co., as nominee of DTC. Upon delivery by DTC to the Paying Agent/Registrar of written notice to the effect that DTC has determined to substitute a new nominee in place of Cede & Co., and subject to the provision in this Resolution with respect to interest checks being mailed to the Owner at the close of business on the Record Date, the word "Cede & Co." in this Resolution shall refer to such new nominee of DTC.

With respect to Series 2016 Bonds registered in the name of Cede & Co., as nominee of DTC, the Authority and the Paying Agent/Registrar shall have no responsibility or obligation to any DTC Participant or to any person on behalf of whom such a DTC Participant holds an interest in the Series 2016 Bonds. Without limiting the immediately preceding sentence, the

Authority and the Paying Agent/Registrar shall have no responsibility or obligation with respect to (a) the accuracy of the records of DTC, Cede & Co. or any DTC Participant with respect to any ownership interest in the Series 2016 Bonds, (b) the delivery to any DTC Participant or any other person, other than a Bondholder, as shown on the Register, of any notice with respect to the Series 2016 Bonds, including any notice of redemption or (c) the payment to any DTC Participant or any other person, other than an Owner, as shown in the Register of any amount with respect to principal of Series 2016 Bonds, premium, if any, or interest on the Series 2016 Bonds.

Except as provided in Section 3.9 of this Resolution, the Authority and the Paying Agent/Registrar shall be entitled to treat and consider the person in whose name each Series 2016 Bond is registered in the Register as the absolute owner of such Series 2016 Bond for the purpose of payment of principal of, premium, if any, and interest on Series 2016 Bonds, for the purpose of giving notices of redemption and other matters with respect to such Series 2016 Bond, for the purpose of registering transfer with respect to such Series 2016 Bond, and for all other purposes whatsoever. The Paying Agent/Registrar shall pay all principal of Series 2016 Bonds, premium, if any, and interest on the Series 2016 Bonds only to or upon the order of the respective Owners, as shown in the Register as provided in this Resolution, or their respective attorneys duly authorized in writing, and all such payments shall be valid and effective to fully satisfy and discharge the Authority's obligations with respect to payment of principal of, premium, if any, and interest on the Series 2016 Bonds to the extent of the sum or sums so paid. No person other than an Owner shall receive a Series 2016 Bond certificate evidencing the obligation of the Authority to make payments of amounts due pursuant to this Resolution.

The Paying Agent/Registrar and the Authority acting by and through an Authorized Representative, may enter into a Letter of Representations with DTC to implement the book-entry only system of Series 2016 Bond registration described above and all prior acts of the Authorized Representatives in this regard are hereby ratified and confirmed.

Section 3.8 Payments and Notices to Cede & Co. Notwithstanding any other provision of this Resolution to the contrary, as long as any Series 2016 Bonds are registered in the name of Cede & Co., as nominee of DTC, all payments with respect to principal of, premium, if any, and interest on the Series 2016 Bonds, and all notices with respect to such Series 2016 Bonds shall be made and given, respectively, in the manner provided in the Letter of Representations.

Section 3.9 Successor Securities Depository; Transfer Outside Book-Entry Only System. In the event that the Authority or the Paying Agent/Registrar determines that DTC is incapable of discharging its responsibilities described herein and in the representation letter of the Authority to DTC, and that it is in the best interest of the beneficial owners of the Series 2016 Bonds that they be able to obtain certificated Series 2016 Bonds, the Authority or the Paying Agent/Registrar shall (a) appoint a successor securities depository, qualified to act as such under Section 17(a) of the Securities and Exchange Act of 1934, as amended, notify DTC of the appointment of such successor securities depository and transfer one or more separate Series 2016 Bonds to such successor securities depository or (b) notify DTC of the availability through DTC of Series 2016 Bonds and transfer one or more separate Series 2016 Bonds to DTC Participants having Series 2016 Bonds credited to their DTC account. In such event, the Series

2016 Bonds shall no longer be restricted to being registered in the Register in the name of Cede & Co., as nominee of DTC, but may be registered in the name of the successor securities depository, or its nominee, or in whatever name or names Owners transferring or exchanging Series 2016 Bonds shall designate, in accordance with the provisions of this Resolution.

Section 3.10 Cancellation. All Series 2016 Bonds paid or redeemed in accordance with this Resolution, and all Series 2016 Bonds in lieu of which exchanged Series 2016 Bonds or replacement Series 2016 Bonds are authenticated and delivered in accordance herewith, shall be canceled and destroyed upon the making of proper records regarding such payment or redemption. The Paying Agent/Registrar shall periodically furnish the Authority with certificates of destruction of such Series 2016 Bonds.

Section 3.11 Replacement Series 2016 Bonds. Upon the presentation and surrender to the Paying Agent/Registrar of a damaged or mutilated Series 2016 Bond, the Paying Agent/Registrar shall authenticate and deliver in exchange therefor a replacement Series 2016 Bond of like maturity, interest rate, and principal amount, bearing a number not contemporaneously outstanding. The Authority or the Paying Agent/Registrar may require the Owner of such Series 2016 Bond to pay a sum sufficient to cover any tax or other governmental charge that may be imposed in connection therewith and any other expenses connected therewith, including the fees and expenses of the Paying Agent/Registrar.

If any Series 2016 Bond is destroyed, lost or stolen, the Authority, pursuant to the applicable laws of the State of Texas and in the absence of notice or knowledge that such Series 2016 Bond has been acquired by a bona fide purchaser, shall execute and the Paying Agent/Registrar shall authenticate and deliver a replacement Series 2016 Bond of like maturity, interest rate, and principal amount, bearing a number not contemporaneously outstanding, provided that the Owner thereof shall have:

- (a) Furnished to the Authority and the Paying Agent/Registrar satisfactory evidence of the ownership of and the circumstances of the loss, destruction or theft of such Series 2016 Bond;
- (b) Furnished such security or indemnity as may be required by the Paying Agent/Registrar and the Authority to save them harmless;
- (c) Paid all expenses and charges in connection therewith, including, but not limited to, printing costs, legal fees, fees of the Paying Agent/Registrar and any tax or other governmental charge that may be imposed; and
- (d) Met any other reasonable requirements of the Authority and the Paying Agent/Registrar.

If, after the delivery of such replacement Series 2016 Bond, a bona fide purchaser of the original Series 2016 Bond in lieu of which such replacement Series 2016 Bond was issued presents for payment such original Series 2016 Bond, the Authority and the Paying Agent/Registrar shall be entitled to recover such replacement Series 2016 Bond from the person to whom it was delivered or any person taking therefrom, except a bona fide purchaser, and shall be entitled to recover

upon the security or indemnity provided therefor to the extent of any loss, damage, cost, or expense incurred by the Authority or the Paying Agent/Registrar in connection therewith.

If any such damaged, mutilated, destroyed, lost, or stolen Series 2016 Bond has become or is about to become due and payable, the Authority in its discretion may, instead of issuing a replacement Series 2016 Bond, authorize the Paying Agent/Registrar to pay such Series 2016 Bond.

Each replacement Series 2016 Bond delivered in accordance with this Section shall be entitled to the benefits and security of this Resolution to the same extent as the Series 2016 Bond or Series 2016 Bonds in lieu of which such replacement Series 2016 Bond is delivered.

[End of Article III]

## ARTICLE IV

### FORM OF SERIES 2016 BONDS

Section 4.1 Form of Series 2016 Bonds. The form of Series 2016 Bonds, Paying Agent/Registrar's Authentication Certificate, Comptroller's Registration Certificate and assignment shall be substantially as set forth in Exhibit B hereto, with such appropriate variations, omissions or insertions as are permitted or required by this Resolution and the Series 2016 Bonds may have such numbers or other identifying marks of identification (including identifying CUSIP numbers) and such legends and endorsements thereon as may, consistent herewith, be approved by the Authorized Representative. Errors or omissions in the printing of the numbers, or in the printing of the opinion or statement of insurance referred to in this Article, shall have no effect on the validity of the Series 2016 Bonds.

Section 4.2 Printing of Opinion of Co-Bond Counsel. A copy of the opinion of Andrews Kurth LLP, Houston, Texas, and Radcliffe Bobbitt Adams Polley PLLC, Houston, Texas, Co-Bond Counsel, in such form as is delivered upon payment for the Series 2016 Bonds, may be printed on the reverse side of or otherwise attached to such Series 2016 Bonds or will be delivered to DTC if the Series 2016 Bonds are held in book-entry only form; and the use of the facsimile signature of the President or Secretary of the Board to certify to the correctness of such copy is hereby authorized.

Section 4.3 Printing of Statement of Insurance. The Board hereby authorizes the printing on any Series 2016 Bonds of any statement of insurance with respect to such Series 2016 Bonds furnished by any Bond Insurer insuring such Series 2016 Bonds.

[End of Article IV]

ARTICLE V

SECURITY AND SOURCE OF  
PAYMENT FOR THE SERIES 2016 BONDS

Section 5.1 Series 2016 Bonds Secured by Master Resolution. The Series 2016 Bonds issued hereunder are equally and ratably secured, together with the Previously Issued Senior Lien Obligations and any Senior Lien Obligations issued hereafter, by (a) the Gross Revenues as collected and received by the Authority (subject only to the prior use of Gross Revenues to pay Operation and Maintenance Expenses in accordance with the Master Resolution) and (b) any other funds and sources pledged to the payment of Senior Lien Obligations pursuant to the Master Resolution, without preference, priority or distinction on account of series or installment, or the actual time or times of the authentication, delivery or maturity of such Series 2016 Bonds so that all such Series 2016 Bonds, together with the Previously Issued Senior Lien Obligations and any Senior Lien Obligations issued hereafter, at any time outstanding hereunder shall have the same right, lien and preference under and by virtue of the Master Resolution and shall be equally and ratably secured hereby with like effect as if they were of the same series or installment and they had all been executed, authenticated and delivered simultaneously on the date hereof, whether the same, or any of them, shall actually be disposed of at such date, or whether they, or any of them, shall be disposed of at some future date.

[End of Article V]

## ARTICLE VI

### CONCERNING THE PAYING AGENT/REGISTRAR

Section 6.1 Acceptance. [\_\_\_\_\_, \_\_\_\_\_, Texas], is hereby appointed as the initial Paying Agent/Registrar for the Series 2016 Bonds. Such initial Paying Agent/Registrar and any successor Paying Agent/Registrar, by undertaking the performance of the duties of the Paying Agent/Registrar hereunder and under the Master Resolution, and in consideration of the payment of fees and/or deposits of money pursuant to this Resolution, shall be deemed to accept and agree to abide by the terms of this Resolution and the Master Resolution.

Section 6.2 Paying Agent/Registrar Agreement. The registration of and payment of the principal of, premium, if any, and interest on the Series 2016 Bonds when due shall be effectuated pursuant to the terms of one or more Paying Agent/Registrar Agreements to be entered into by and between the Authority and the Paying Agent/Registrar, which shall be substantially in the form presented to the Board with this Resolution, the terms and provisions of which are hereby approved, and the President of the Board and the Secretary of the Board are hereby authorized to execute and deliver such Paying Agent/Registrar Agreement on behalf of the Authority in multiple counterparts.

Section 6.3 Fiduciary Account. All money transferred to the Paying Agent/Registrar under the Master Resolution and this Resolution (except sums representing the Paying Agent/Registrar's fees) shall be held in a fiduciary account for the benefit of the Authority, shall be the property of the Authority, and shall be disbursed in accordance with the Master Resolution and this Resolution.

Section 6.4 Bonds Presented. Subject to the provisions of Section 6.5, all matured Series 2016 Bonds presented to the Paying Agent/Registrar for payment shall be paid without the necessity of further instructions from the Authority. Such Series 2016 Bonds shall be canceled as provided herein.

Section 6.5 Series 2016 Bonds Not Timely Presented. Funds held by the Paying Agent/Registrar that represent principal of and interest on the Series 2016 Bonds remaining unclaimed by any Owner after the expiration of three (3) years from the date such funds have become due and payable (a) shall be reported and disposed of by the Paying Agent/Registrar in accordance with the provisions of Title 6 of the Texas Property Code, as amended, to the extent such provisions are applicable to such funds, or (b) to the extent such provisions do not apply to the funds, such funds shall be paid by the Paying Agent/Registrar to the Authority upon receipt by the Paying Agent/Registrar of a written request therefor from the Authority.

The Paying Agent/Registrar shall have no liability to the Owners of the Series 2016 Bonds by virtue of actions taken in compliance with this Section.

Section 6.6 Paying Agent/Registrar May Own Series 2016 Bonds. The Paying Agent/Registrar in its individual or any other capacity, may become the owner or pledgee of Series 2016 Bonds with the same rights it would have if it were not the Paying Agent/Registrar.

Section 6.7 Successor Paying Agent/Registrars. The Authority covenants that at all times while any Series 2016 Bonds are Outstanding it will provide a legally qualified bank, trust company, financial institution, or other agency to act as Paying Agent/Registrar for the Series 2016 Bonds. If the Paying Agent/Registrar or its successor for any reason no longer acts as Paying Agent/Registrar hereunder, the Authority covenants that it will appoint a successor Paying Agent/Registrar to perform the duties of Paying Agent/Registrar hereunder. Any successor Paying Agent/Registrar shall be either (a) a national or state banking institution or (b) a corporation organized and doing business under the laws of the United States of America or any state, which is authorized under such laws to exercise trust powers, and shall be subject to supervision or examination by federal or state authority, authorized to perform the fiduciary duties described by the Master Resolution and authorized by law to serve as a Paying Agent/Registrar hereunder.

The Authority reserves the right to change the Paying Agent/Registrar for the Series 2016 Bonds on not less than sixty (60) days written notice to the Paying Agent/Registrar, as long as any such notice is effective not less than sixty (60) days prior to the next succeeding principal or interest payment date on the Series 2016 Bonds. Promptly upon the appointment of any successor Paying Agent/Registrar, the previous Paying Agent/Registrar shall deliver the Register or a copy thereof to the new Paying Agent/Registrar and the new Paying Agent/Registrar shall notify each Registered Owner, by first-class mail, postage prepaid, of such change and of the address of the new Paying Agent/Registrar. Each Paying Agent/Registrar hereunder, by acting in that capacity, shall be deemed to have agreed to the provisions of this Resolution.

[End of Article VI]



ARTICLE VII

PROVISIONS CONCERNING SALE AND APPLICATION  
OF PROCEEDS OF SERIES 2016 BONDS

Section 7.1 Issuance, Sale and Delivery of Series 2016 Bonds; Approval of Private Placement Memorandum.

(a) The sale of the Bonds to the Texas Water Development Board (the "TWDB") at a price of the par value thereof, is hereby approved. It is hereby officially found, determined and declared that the above price and terms of sale of the Bonds are the most advantageous reasonable obtainable by the Authority.

(b) The Bonds herein authorized shall be initially issued (i) as a single fully registered bond in the total principal amount of this series with principal installments to become due and payable as provided in Section 3.2 hereof and numbered T-1, or (ii) as one bond for each year of maturity in the applicable principal amount and denomination as referenced in Section 3.2 hereof and to be numbered consecutively from T-1 and upward (hereinafter called the "Initial Bond(s)") and, in either case, the Initial Bond(s) shall be registered in the name of the initial purchaser(s) or the designee thereof. The Initial Bond(s) shall be the Bonds submitted to the Office of the Attorney General of the State of Texas for approval, certified and registered by the Office of the Comptroller of Public Accounts of the State of Texas and delivered to the TWDB. Any time after the delivery of the Bonds, the TWDB shall have the right to exchange such bonds as provided in Section 3.6 hereof without cost.

(c) The Board hereby finds and determines that all representations and covenants set forth in the Master Resolution are true and correct as of the date of this Resolution and the Board ratifies and confirms such covenants and representations as if they were set forth herein.

(d) The Board hereby approves the form and content of the Private Placement Memorandum prepared in connection with the sale of the Bonds and presented to the Board with this Resolution, together with such changes as may be approved by an Authorized Representative, and authorizes the distribution and delivery of the Private Placement Memorandum to the TWDB, as the purchaser of the Series 2016 Bonds. An Authorized Representative of the Authority is authorized to execute such Private Placement Memorandum to evidence the approval thereof.

Section 7.2 Approval, Registration, and Delivery. The President of the Board and the Secretary of the Board are hereby authorized to have control and custody of the Series 2016 Bonds and all necessary records and proceedings pertaining thereto pending their delivery to the TWDB, and the Authorized Representatives and other officers and employees of the Authority are hereby authorized, directed and instructed to make such certifications and to execute such instruments (including by printed facsimile signature) as may be necessary to accomplish the initial delivery of the Series 2016 Bonds and to assure the investigation, examination, and approval thereof by the Attorney General of Texas and the registration of the initial Series 2016

Bonds by the Comptroller of Public Accounts of the State of Texas. Upon registration of the Series 2016 Bonds, the Comptroller of Public Accounts of the State of Texas (or a deputy designated in writing to act for him) shall be requested to sign manually the registration certificate prescribed herein to be attached or affixed to each Series 2016 Bond initially delivered and the seal of the Comptroller of Public Accounts of the State of Texas shall be impressed or printed or lithographed thereon. Delivery of the Series 2016 Bonds is subject to the unqualified approving opinions as to the legality of the Series 2016 Bonds of the Attorney General of Texas and of Andrews Kurth LLP, Houston, Texas and Radcliffe Bobbitt Adams Polley PLLC, Houston, Texas, Co-Bond Counsel.

Section 7.3 Application of Proceeds of Series 2016 Bonds. The proceeds of the Series 2016 Bonds, upon the receipt thereof, shall be applied in the following manner and in the amounts directed by an Authorized Representative:

(a) Interest Account. First, there shall be credited to the “Interest Account,” which account is within the Interest and Sinking Fund, the amounts, if any, received as accrued and capitalized interest on the Series 2016 Bonds to apply to the payment of interest on the Series 2016 Bonds as the same becomes due.

(b) Reserve Fund. Second, there shall be credited to the Reserve Fund an amount sufficient to satisfy the portion of the Reserve Fund Requirement required to be deposited and maintained pursuant to Section 4.4 of the Master Resolution (whether through a deposit of money, purchase of a Reserve Fund Obligation or a combination thereof).

(c) Construction Fund. Third, proceeds from the sale of the Series 2016 Bonds shall be applied to establish a Construction Fund. Proceeds of the Series 2016 Bonds deposited to the Construction Fund shall be used for the purposes set forth in Section 3.1 of this Resolution. Any proceeds of the Series 2016 Bonds remaining after making all such deposits and payments shall be deposited into the Interest and Sinking Fund.

Notwithstanding the above and foregoing, immediately following the delivery of the Series 2016 Bonds and prior to the deposit of the proceeds from the sale of such Series 2016 Bonds as described above, such proceeds shall be held in trust and in escrow pursuant to the written escrow agreement described below pending written authorization to release said proceeds.

A “Special Escrow Deposit Agreement” by and between the Authority and [\_\_\_\_\_], attached hereto as Exhibit C and incorporated herein by reference as a part of this Resolution for all purposes, is hereby approved as to form and content, and the President and Secretary of the Board are hereby authorized and directed to execute such Agreement in substantially the same form and content herein approved.

Section 7.4 Bond Insurance Policy. A statement relating to municipal bond insurance, if applicable, provided by a Bond Insurer may be printed on or attached to each Series 2016 Bonds.

Section 7.5 Surety Policies. In order to provide for the deposit of the Reserve Fund Requirement in the Reserve Fund in connection with the issuance of the Series 2016 Bonds, an Authorized Representative is authorized to solicit bids for the purchase of one or more Reserve Fund Obligations for such Fund and, to the extent that the purchase of one or more Reserve Fund Obligations is determined by an Authorized Representative to provide an economic benefit, negotiate the purchase of such Reserve Fund Obligation(s) from one or more Credit Agreement Providers. An Authorized Representative is further authorized to negotiate the terms of any related reimbursement or similar agreement and to execute and deliver such agreement(s); provided, however, that any interest due on any repayment obligation of the Authority under any of the foregoing documents by reason of payments made under a Reserve Fund Obligation may not exceed the Highest Lawful Rate of interest which may be paid by the Authority at the time of the delivery of the Reserve Fund Obligation.

Section 7.6 Related Matters. To ensure that the Authority shall satisfy in a timely manner all of its obligations under the Master Resolution, this Resolution, and any Credit Agreements, the Authorized Representatives and all other appropriate officers and agents of the Authority are hereby authorized and directed to take any action determined by an Authorized Representative to be reasonably necessary to provide for the issuance and delivery of the Series 2016 Bonds, including without limitation, executing by manual or facsimile signature and delivering on behalf of the Authority all certificates, consents, receipts, requests, notices, agreements, and other documents as may be reasonably necessary to satisfy the Authority's obligations under the Master Resolution, this Resolution, and any Credit Agreements, and paying costs incurred in connection with the issuance of the Series 2016 Bonds, and to direct the transfer and application of funds of the Authority consistent with the provisions of the Master Resolution and this Resolution. If requested by the Attorney General of Texas or his representatives, an Authorized Representative or Bond Counsel may authorize such ministerial changes in the written text of this Resolution as are necessary to obtain the Attorney General's approval and as he determines are consistent with the intent and purposes of this Resolution.

[End of Article VII]

ARTICLE VIII

TAX EXEMPTION

Section 8.1 Covenants to Maintain Tax Exemption.

(a) Definitions. When used in this Section, the following terms have the following meanings:

(i) “Code” means the Internal Revenue Code of 1986, as amended by all legislation, if any, effective on or before the Issue Date.

(ii) “Computation Date” has the meaning stated in section 1.148-1(b) of the Regulations.

(iii) “Gross Proceeds” has the meaning stated in section 1.148-1(b) of the Regulations.

(iv) “Investment” has the meaning stated in section 1.148-1(b) of the Regulations.

(v) “Issue Date” for the Series 2016 Bonds or other obligations of the Authority is the respective date on which such obligations of the Authority are first delivered against payment therefor.

(vi) “Nonpurpose Investment” has the meaning stated in section 1.148-1(b) of the Regulations.

(vii) “Proceeds” has the meaning stated in section 1.148-1(b) of the Regulations.

(viii) “Rebate Amount” has the meaning stated in section 1.148-3 of the Regulations.

(ix) “Regulations” means the temporary or final Income Tax Regulations applicable to the Series 2016 Bonds issued pursuant to sections 141 through 150 of the Code. Any reference to a section of the Regulations shall also refer to any successor provision to such section hereafter promulgated by the Internal Revenue Service pursuant to sections 141 through 150 of the Code and applicable to the Series 2012F Bonds.

(x) “Yield of”

(A) any Investment shall be computed in accordance with section 1.148-5 of the Regulations, and

(B) the Series 2016 Bonds shall be computed in accordance with section 1.148-4 of the Regulations.

(b) Not to Cause Interest to Become Taxable. The Authority shall not use, permit the use of or omit to use Gross Proceeds or any other amounts (or any property the acquisition, construction or improvement of which is to be financed directly or indirectly with Gross Proceeds) in a manner which, if made or omitted, respectively, would cause the interest on any Series 2016 Bonds to become includable in the gross income, as defined in section 61 of the Code, of the owner thereof for federal income tax purposes. Without limiting the generality of the foregoing, unless and until the Authority shall have received a written opinion of counsel nationally recognized in the field of municipal bond law to the effect that failure to comply with such covenant will not adversely affect the exemption from federal income tax of the interest on any Series 2016 Bond, the Authority shall comply with each of the specific covenants in this Section.

(c) No Private Use or Private Payments. Except as permitted by section 141 of the Code and the regulations and rulings thereunder, the Authority shall, at all times prior to the last stated maturity of the Series 2016 Bonds,

(i) exclusively own, operate, and possess all property the acquisition, construction, or improvement of which is to be financed or refinanced directly or indirectly with Gross Proceeds of the Series 2016 Bonds and not use or permit the use of such Gross Proceeds or any property acquired, constructed, or improved with such Gross Proceeds in any activity carried on by any person or entity other than a state or local government, unless such use is solely as a member of the general public, or

(ii) not directly or indirectly impose or accept any charge or other payment for use of Gross Proceeds of the Series 2016 Bonds or any property the acquisition, construction or improvement of which is to be financed or refinanced directly or indirectly with such Gross Proceeds other than taxes of general application and interest earned on investments acquired with such Gross Proceeds pending application for their intended purposes.

(d) No Private Loan. Except to the extent permitted by section 141 of the Code and the regulations and rulings thereunder, the Authority shall not use Gross Proceeds of the Series 2016 Bonds to make or finance loans to any person or entity other than a state or local government. For purposes of the foregoing covenant, Gross Proceeds are considered to be "loaned" to a person or entity if (1) property acquired, constructed or improved with Gross Proceeds is sold or leased to such person or entity in a transaction which creates a debt for federal income tax purposes, (2) capacity in or service from such property is committed to such person or entity under a take-or-pay, output, or similar contract or arrangement, or (3) indirect benefits, or burdens and benefits of ownership, of such Gross Proceeds or such property are otherwise transferred in a transaction which is the economic equivalent of a loan.

(e) Not to Invest at Higher Yield. Except to the extent permitted by section 148 of the Code and the regulations and rulings thereunder, the Authority shall not, at any time prior to the earlier of the final stated maturity or final payment of the Series 2016 Bonds, directly or indirectly invest Gross Proceeds of such Series 2016

Bonds in any Investment (or use such Gross Proceeds to replace money so invested), if as a result of such investment the Yield of all Investments allocated to such Gross Proceeds whether then held or previously disposed of, exceeds the Yield on the Series 2016 Bonds.

(f) Not Federally Guaranteed. Except to the extent permitted by section 149(b) of the Code and the regulations and rulings thereunder, the Authority shall not take or omit to take any action which would cause the Series 2016 Bonds to be federally guaranteed within the meaning of section 149(b) of the Code and the regulations and rulings thereunder.

(g) Information Report. The Authority shall timely file with the Secretary of the Treasury the information required by section 149(e) of the Code with respect to the Series 2016 Bonds on such forms and in such place as such Secretary may prescribe.

(h) Payment of Rebate Amount. Except to the extent otherwise provided in section 148(f) of the Code and the regulations and rulings thereunder, the Authority shall:

(i) account for all Gross Proceeds (including all receipts, expenditures and investments thereof) on its books of account separately and apart from all other funds (and receipts, expenditures and investments thereof) and shall retain all records of such accounting for at least six years after the final Computation Date. The Authority may, however, to the extent permitted by law, commingle Gross Proceeds of the Series 2016 Bonds with other money of the Authority, provided that the Authority separately accounts for each receipt and expenditure of such Gross Proceeds and the obligations acquired therewith,

(ii) calculate the Rebate Amount with respect to the Series 2016 Bonds, not less frequently than each Computation Date, in accordance with rules set forth in section 148(f) of the Code, section 1.148-3 of the Regulations, and the rulings thereunder. The Authority shall maintain a copy of such calculations for at least six years after the final Computation Date,

(iii) as additional consideration for the purchase of the Series 2016 Bonds by the initial purchaser thereof and the loan of the money represented thereby, and in order to induce such purchase by measures designed to ensure the excludability of the interest thereon from the gross income of the owners thereof for federal income tax purposes, pay to the United States the amount described in paragraph (2) above at the times, in the installments, to the place, in the manner and accompanied by such forms or other information as is or may be required by section 148(f) of the Code and the regulations and rulings thereunder, and

(iv) exercise reasonable diligence to assure that no errors are made in the calculations and payments required by paragraphs (2) and (3), and, if such error is made, to discover and promptly to correct such error within a reasonable amount of time thereafter (and in all events within one hundred eighty (180) days after discovery of the error), including payment to the United States of any

additional Rebate Amount owed to it, interest thereon and any penalty required by the Regulations.

(i) Not to Divert Arbitrage Profits. Except to the extent permitted by section 148 of the Code and the regulations and rulings thereunder, the Authority shall not, at any time prior to the earlier of the final stated maturity or final payment of the Series 2016 Bonds, enter into any transaction that reduces the amount required to be paid to the United States pursuant to Subsection (h) of this Section because such transaction results in a smaller profit or a larger loss than would have resulted if the transaction had been at arm's length and had the Yield of the Series 2016 Bonds, not been relevant to either party.

(j) Not Hedge Bonds. The Authority did not invest more than 50 percent of the Proceeds of the original bonds refunded by the Series 2016 Bonds in Nonpurpose Investments having a guaranteed yield for four years or more. On the Issue Date of each series of the original bonds refunded by the Series 2016 Bonds, the Authority reasonably expected that at least 85 percent of the spendable proceeds of such bonds would be used to carry out the governmental purpose of such bonds within three years after the respective Issue Date of such bonds.

[End of Article VIII]

## ARTICLE IX

### CONTINUING DISCLOSURE UNDERTAKING

Section 9.1 Annual Reports. The Authority shall provide annually to the MSRB, in an electronic format as prescribed by the MSRB, within six months after the end of each fiscal year, financial information and operating data with respect to the Authority of the general type described in Exhibit D hereto. Any financial statements so to be provided shall be (1) prepared in accordance with such accounting principles as the Authority may be required to employ from time to time pursuant to State law or regulation and (2) audited, if the Authority commissions an audit of such statements and the audit is completed within the period during which they must be provided. If the audit of such financial statements is not complete within 12 months after any such fiscal year end, then the Authority shall file unaudited financial statements within such 12-month period and audited financial statements for the applicable fiscal year, when and if the audit report on such statements becomes available.

If the Authority changes its fiscal year, it will notify the MSRB of the change (and of the date of the new fiscal year end) prior to the next date by which the Authority otherwise would be required to provide financial information and operating data pursuant to this Section.

The financial information and operating data to be provided pursuant to this Section may be set forth in full in one or more documents or may be included by specific reference to any document that is available to the public on the MSRB's internet website or filed with the SEC.

Section 9.2 Event Notices. The Authority shall notify the MSRB, in a timely manner (not in excess of ten (10) business days after the occurrence of the event), of any of the following events with respect to the Series 2016 Bonds:

- (a) Principal and interest payment delinquencies;
- (b) Non-payment related defaults, if material;
- (c) Unscheduled draws on debt service reserves reflecting financial difficulties;
- (d) Unscheduled draws on credit enhancements reflecting financial difficulties;
- (e) Substitution of credit or liquidity providers, or their failure to perform;
- (f) Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Series 2016 Bonds, or other material events affecting the tax status of the Series 2016 Bonds;
- (g) Modifications to rights of Bondholders, if material;



- (h) Bond calls, if material, and tender offers;
- (i) Defeasances;
- (j) Release, substitution, or sale of property securing repayment of the Series 2016 Bonds; if material;
- (k) Rating changes;
- (l) Bankruptcy, insolvency, receivership, or similar event of the Authority;
- (m) The consummation of a merger, consolidation, or acquisition involving the Authority or the sale of all or substantially all of the assets of the Authority, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action, or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and
- (n) The appointment of a successor or additional trustee or the change of name of a trustee, if material.

As used in clause (l) above, the phrase “bankruptcy, insolvency, receivership or similar event” means the appointment of a receiver, fiscal agent or similar officer for the Authority in a proceeding under the United States Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets of the Authority, or if jurisdiction has been assumed by leaving the Board and official or officers of the Authority in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the Authority.

The Authority shall also notify the MSRB, in an electronic format as prescribed by the MSRB, in a timely manner, of any failure by the Authority to provide financial information or operating data in accordance with this Section by the time required by this Section.

All documents provided to the MSRB pursuant to this Section shall be accompanied by identifying information as prescribed by the MSRB.

Section 9.3 Limitations, Disclaimers, and Amendments. The Authority shall be obligated to observe and perform the covenants specified in this Article for so long as, but only for so long as, the Authority remains an “obligated person” with respect to the Series 2016 Bonds within the meaning of the Rule, except that the Authority in any event will give the notice required by Section 9.2 of any Series 2016 Bond calls and defeasance that cause the Authority to be no longer such an “obligated person.”

The provisions of this Article are for the sole benefit of the Owners and beneficial owners of the Series 2016 Bonds, and nothing in this Article, express or implied, shall give any benefit or any legal or equitable right, remedy, or claim hereunder to any other person. The Authority undertakes to provide only the financial information, operating data, financial statements, and

notices which it has expressly agreed to provide pursuant to this Article and does not hereby undertake to provide any other information that may be relevant or material to a complete presentation of the Authority's financial results, condition, or prospects or hereby undertake to update any information provided in accordance with this Article or otherwise, except as expressly provided herein. The Authority does not make any representation or warranty concerning such information or its usefulness to a decision to invest in or sell Series 2016 Bonds at any future date.

UNDER NO CIRCUMSTANCES SHALL THE AUTHORITY BE LIABLE TO THE OWNER OR BENEFICIAL OWNER OF ANY SERIES 2016 BOND OR ANY OTHER PERSON, IN CONTRACT OR TORT, FOR DAMAGES RESULTING IN WHOLE OR IN PART FROM ANY BREACH BY THE AUTHORITY, WHETHER NEGLIGENT OR WITHOUT FAULT ON ITS PART, OF ANY COVENANT SPECIFIED IN THIS ARTICLE, BUT EVERY RIGHT AND REMEDY OF ANY SUCH PERSON, IN CONTRACT OR TORT, FOR OR ON ACCOUNT OF ANY SUCH BREACH SHALL BE LIMITED TO AN ACTION FOR MANDAMUS OR SPECIFIC PERFORMANCE.

No default by the Authority in observing or performing its obligations under this Article shall constitute a breach of or default under this Resolution for purposes of any other provision of this Resolution.

Nothing in this Article is intended or shall act to disclaim, waive or otherwise limit the duties of the Authority under federal and state securities laws.

The provisions of this Article may be amended by the Authority from time to time to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature, status or type of operations of the Authority, but only if (1) the provisions of this Article, as so amended, would have permitted an underwriter to purchase or sell Series 2016 Bonds in the primary offering of the Series 2016 Bonds in compliance with the Rule, taking into account any amendments or interpretations of the Rule to the date of such amendment, as well as such changed circumstances, and (2) either (a) the Owners of a majority in aggregate principal amount (or any greater amount required by any other provision of this Resolution that authorizes such an amendment) of the Outstanding Series 2016 Bonds consent to such amendment or (b) a person or entity that is unaffiliated with the Authority (such as nationally recognized bond counsel) determines that such amendment will not materially impair the interests of the Owners and beneficial owners of the Series 2016 Bonds. If the Authority so amends the provisions of this Article, it shall include with any amended financial information or operating data next provided in accordance with Section 9.1 an explanation, in narrative form, of the reasons for the amendment and of the impact of any change in the type of financial information or operating data so provided. The Authority may also amend or repeal the provisions of this Article if the SEC amends or repeals the applicable provisions of the Rule or a court of final jurisdiction enters judgment that such provisions of the Rule are invalid, and the Authority also may amend the provisions of this Article in its discretion in any other manner or circumstance, but in either case only if and to the extent that the provisions of this sentence would not prevent an underwriter from lawfully purchasing or selling Series 2016 Bonds in the primary offering of the Series 2016 Bonds.

[End of Article IX]

## ARTICLE X

### MISCELLANEOUS

Section 10.1 Compliance with the Texas Water Development Board's Rules and Regulations. The Authority will comply with all of the requirements contained in the resolution or resolutions adopted by the TWDB with respect to the issuance of the Series 2016 Bonds. In addition, in compliance with the TWDB's State Water Implementation Revenue Fund for Texas ("SWIRFT") Loan Program Rules, the Authority agrees and covenants:

(a) Any loan proceeds from the Series 2016 Bonds that are determined to be surplus proceeds remaining after completion of one or more of the projects described in Section 3.1 hereof shall be used for the following purposes as approved by the Executive Administrator: (1) deposit into the Interest and Sinking Fund or other debt service account for the payment of interest or principal on the Series 2016 Bonds owned by the TWDB; or (2) eligible costs for a project as authorized by the Executive Administrator.

(b) The Authority shall indemnify, hold harmless and protect the TWDB from any and all claims, causes of action or damages to the person or property of third parties arising from the sampling, analysis, transport, storage, treatment and disposition of any contaminated sewage sludge, contaminated sediments and/or contaminated media that may be generated by the Authority, its contractors, consultants, agents, officials and employees as a result of activities relating to the project, to the extent permitted by law.

(c) The Authority shall report to the TWDB the amounts of project funds, if any, that were used to compensate historically underutilized businesses that worked on the project, in accordance with 31 TAC § 363.1312.

(d) The TWDB will purchase the Series 2016 Bonds, acting through the TWDB's designated trustee, and the Series 2016 Bonds shall be registered in the name of Cede & Co. and closed in book-entry form in accordance with 31 TAC Section 363.42(c)(1).

(e) Neither the Authority nor a related party thereto will acquire any of the TWDB's Source Series Bonds in an amount related to the amount of the Series 2016 Bonds to be acquired from the Authority by the TWDB.

(f) Payments of principal and interest on the Series 2016 Bonds will be made to the TWDB via wire transfer at no cost to the TWDB.

Section 10.2 Further Proceeding. To satisfy in a timely manner all of the Authority's obligations under this Resolution, the President or the Vice President and Secretary of the Board and all other appropriate officers, agents and representatives of the Authority are hereby authorized and directed to take all other actions that are reasonably necessary to provide for the issuance of the Series 2016 Bonds, including, without limitation, executing and delivering on behalf of the Authority all certificates, consents, receipts, requests and other documents as may be reasonably necessary to satisfy the Authority's obligations under this Resolution and to direct

the transfer and application of funds of the Authority consistent with the provisions of this Resolution.

Section 10.3 Legal Holidays. In any case where the date of maturity of interest on or principal of the Series 2016 Bonds or the date fixed for redemption of any Series 2016 Bonds shall be in the Authority a legal holiday or a day on which the Paying Agent/Paying Agent/Registrar for the Series 2016 Bonds is authorized by law to close, then payment of interest or principal need not be made on such date but may be made on the next succeeding day not in the Authority a legal holiday or a day on which such Paying Agent Paying Agent/Registrar is authorized by law to close with the same force and effect as if made on the date of maturity or the date fixed for redemption and no interest shall accrue for the period from the date of maturity or redemption to the date of actual payment.

Section 10.4 Unavailability of Authorized Publication. If, because of the temporary or permanent suspension of any newspaper, journal or other publication, or, for any reason, publication of notice cannot be made meeting any requirements herein established, any notice required to be published by the provisions of this Resolution shall be given in such other manner and at such time or times as in the judgment of the Authority or of the Paying Agent/Paying Agent/Registrar (or paying agent) for the Series 2016 Bonds shall most effectively approximate such required publication and the giving of such notice in such manner shall for all purposes of this Resolution be deemed to be in compliance with the requirements for publication thereof.

Section 10.5 No Recourse Against Authority Officials. No recourse shall be had for the payment of principal of or interest on any Series 2016 Bonds or for any claim based thereon or on this Resolution against any official of the Authority or any person executing any Series 2016 Bonds.

Section 10.6 Severability. If any Section, paragraph, clause or provision of this Resolution shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such Section, paragraph, clause or provision shall not affect any of the remaining provisions of this Resolution.

Section 10.7 Open Meeting. It is hereby found, determined and declared that a sufficient written notice of the date, hour, place and subject of the meeting of the Board at which this Resolution was adopted was posted at a place convenient and readily accessible at all times to the general public at the offices of the Authority for the time required by law preceding this meeting, as required by the Open Meetings Act, Chapter 551, Texas Government Code, as amended, and that this meeting has been open to the public as required by law at all times during which this Resolution and the subject matter thereof has been discussed, considered and formally acted upon. The Board further ratifies, approves and confirms such written notice and the contents and posting thereof.

[End of Article X]

PASSED AND APPROVED THE \_\_\_\_ day of \_\_\_\_\_, 2016.

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President, Board of Directors  
North Harris County Regional Water Authority

ATTEST:

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Secretary, Board of Directors  
North Harris County Regional Water Authority

(AUTHORITY SEAL)

- Exhibit A – Definitions
- Exhibit B – Form of Series 2016 Bond
- Exhibit C – Form of Special Escrow Deposit Agreement

**EXHIBIT A**  
**DEFINITIONS**

## DEFINITIONS

“*Authority*” shall mean the North Harris County Regional Water Authority (and, where appropriate, the Board thereof) and any successor to the Authority.

“*Authorized Denominations*” shall mean \$5,000 or any integral multiple thereof.

“*Authorized Investment*” means any and all of the authorized investments described in the Public Funds Investment Act, Chapter 2256, Texas Government Code, as amended, provided that such investments are, at the time made, included in and authorized by the Authority’s official investment policy approved from time to time by the Board.

“*Authorized Representative*” shall mean the General Manager or the Financial Assistant of the Authority, the President, Vice President or Treasurer of the Board, or any officer or other employee of the Authority at the time designated to act on behalf of the Board by written certificate of the Secretary of the Board or the General Manager and containing such officer’s or employee’s specimen signature.

“*Board*” means the Board of Directors of the North Harris County Regional Water Authority.

“*Bond Insurer*” means any insurance company insuring payment of municipal bonds and other similar obligations if such bond or obligations so insured by it are eligible for a rating by a Rating Agency, at the time of the delivery of a municipal bond insurance policy, in one of its two highest rating categories.

“*Business Day*” means any day other than (a) a Saturday or Sunday, (b) a day on which banking institutions in the city or cities in which the designated office of any Fiscal Agent or Credit Agreement Provider are located and authorized by law or executive order to close, (c) any day on which the Federal Reserve Bank of Dallas is closed, (d) a day on which the a securities depository for a Series or Installment of Bonds is closed or (e) a day on with the New York Stock Exchange, or any successor securities exchange, is closed.

“*Code*” shall mean the Internal Revenue Code of 1986, as amended.

“*Dated Date*” means \_\_\_\_\_, 2016.

“*Dollars*” or “*\$*” means lawful currency of the United States of America.

“*DTC*” shall mean The Depository Trust Company (a limited purpose trust company), New York, New York, until any successor depository shall have become such pursuant to the applicable provisions of this Resolution and, thereafter, “*DTC*” shall mean the successor depository. Any depository shall be a securities depository that is a clearing agency under federal law operating and maintaining, with its participants or otherwise, a book entry system to record ownership of beneficial interests in Series 2016 Bonds, and to effect transfer of Series 2016 Bonds, in book entry form.



“*Highest Lawful Rate*” shall mean the maximum net effective interest rate permitted by law to be paid on obligations issued or incurred by the Authority in the exercise of its borrowing powers (prescribed by Chapter 1204, Texas Government Code, as amended, or any successor provision).

“*Interest Payment Date*” means the date or dates upon which interest on the Series 2016 Bonds is scheduled to be paid until their respective dates of maturity or prior redemption, such dates being [June 15 and December 15 of each year, commencing June 15, 2017].

“*Letter of Representations*” means the Blanket Letter of Representations between the Authority and DTC, or another such Letter of Representations if determined necessary by an Authorized Representative, each as amended or supplemented from time to time.

“*Master Resolution*” shall mean the “Master Resolution Establishing a Financing Program for the North Harris County Regional Water Authority; Approving and Authorizing North Harris County Regional Water Authority Senior Lien Revenue Bonds to be Issued in Various Series and to be Sold and Delivered in Various Forms; Providing for Credit Agreements; Making Certain Covenants and Agreements in Connection Therewith; and Resolving Other Matters Incident and Related Thereto”, adopted by the Board on May 19, 2003, as the same may be amended or supplemented from time to time as permitted thereby.

“*MSRB*” means the Municipal Securities Rulemaking Board.

“*Owner*” or “*Registered Owner*,” when used with respect to any Series 2016 Bond, shall mean the person or entity in whose name such Series 2016 Bond is registered in the Register. Any reference to a particular percentage or proportion of the Owners of the Series 2016 Bonds shall mean the Owners at a particular time of the specified percentage or proportion in aggregate principal amount of all Series 2016 Bonds then Outstanding.

“*Paying Agent/Registrar*” shall mean [\_\_\_\_\_, \_\_\_\_\_, Texas], and its successors in that capacity.

“*Previously Issued Senior Lien Obligations*” means the Authority’s previously issued and outstanding Senior Lien Obligations. As of the date of adoption of this Resolution, the following Previously Issued Senior Lien Obligations are outstanding:

- North Harris County Regional Water Authority Senior Lien Revenue Bonds, Series 2008;
- North Harris County Regional Water Authority Senior Lien Revenue Refunding Bonds, Series 2013;
- North Harris County Regional Water Authority Senior Lien Revenue Refunding Bonds, Series 2014; and
- North Harris County Regional Water Authority Senior Lien Revenue Bonds, Series 2015.

“*Rating Agency*” means Moody’s Investors Service and Standard & Poor’s Rating Services, a Standard & Poor’s Financial Services LLC business, and their respective successors.

“*Register*” shall mean the books of registration kept by the Paying Agent/Paying Agent/Registrar in which are maintained the names and addresses of and the principal amounts registered to each Owner of Series 2016 Bonds.

“*Resolution*” shall mean this Seventh Supplemental Resolution and all amendments and supplements hereto.

“*Rule*” means SEC Rule 15c2-12, as amended from time to time.

“*SEC*” means the United States Securities and Exchange Commission.

“*Series 2016 Bonds*” shall mean the North Harris County Regional Water Authority Senior Lien Revenue Bonds, Series 2016.

“*Source Series Bonds*” means TWDB’s bonds that are issued to provide financing for the loan from TWDB to the Authority.

“*TWDB*” means the Texas Water Development Board.

**EXHIBIT B**  
**FORM OF SERIES 2016 BOND**

**FORM OF SERIES 2016 BOND**

**UNITED STATES OF AMERICA  
STATE OF TEXAS**

**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
SENIOR LIEN REVENUE BOND  
SERIES 2016**

NUMBER DENOMINATION  
<sup>1</sup>R-\_\_\_\_\_ \$ \_\_\_\_\_  
REGISTERED REGISTERED

<sup>2</sup>INTEREST RATE: DATED DATE: <sup>2</sup>MATURITY DATE: <sup>2</sup>CUSIP NO.:  
\_\_\_\_\_ % \_\_\_\_\_, 2016 \_\_\_\_\_, \_\_\_\_\_

Registered Owner:

Principal Amount: DOLLARS

<sup>3</sup>NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY, a governmental agency and a body politic and corporate and a defined district created under the Constitution and laws of the State of Texas (herein the "Authority"), for value received, hereby promises to pay, to the Registered Owner identified above or registered assigns, solely from certain pledged revenues and funds as hereinafter specified and from no other source, on the Maturity Date specified above, upon presentation and surrender of this bond at the principal corporate trust office of the "Paying Agent/Registrar," initially [\_\_\_\_\_, \_\_\_\_\_, Texas], in any coin or currency of the United States of America which on the date of payment of such principal is legal tender for the payment of debts due the United States of America, the Principal Amount identified above (or so much as shall not have been paid upon prior

<sup>1</sup> The initial Bond shall be numbered T-1.

<sup>2</sup> Omitted from the initial Bond.

<sup>3</sup> The first sentence of the Initial Bond shall read as follows:

NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY, a governmental agency and a body politic and corporate and a defined district created under the Constitution and laws of the State of Texas (herein the "Authority"), for value received, hereby promises to pay, to the Registered Owner identified above or registered assigns, solely from certain pledged revenues and funds as hereinafter specified and from no other source, in each of the years, in the Maturity Amounts and at the interest rates set forth in the below schedule, upon presentation and surrender of this bond at the principal corporate trust office of the "Paying Agent/Registrar," initially [\_\_\_\_\_, \_\_\_\_\_, Texas], in any coin or currency of the United States of America which on the date of payment of such principal is legal tender for the payment of debts due the United States of America: [Insert information regarding years of maturity, Maturity Amounts and yield], and to pay, solely from such pledged revenues and funds, interest thereon at the Interest Rate shown above, calculated on the basis of a 360-day year composed of twelve 30-day months, from the later of \_\_\_\_\_, 2016, or the most recent interest payment date to which interest has been paid or duly provided for.

redemption), and to pay, solely from such pledged revenues and funds, interest thereon at the Interest Rate shown above, calculated on the basis of a 360-day year composed of twelve 30-day months, from the later of \_\_\_\_\_, 2016 or the most recent interest payment date to which interest has been paid or duly provided for. Interest on this bond is payable on each [June 15 and December 15, beginning June 15, 2017], until the maturity or redemption date of this bond or until the Authority's obligation with respect to this bond has been satisfied. Interest on this bond shall be payable by check mailed by the Paying Agent/Registrar to the Registered Owner of record as of the last day of the month next preceding the interest payment date as shown on the books of registration kept by the Paying Agent/Registrar.

THIS BOND IS ONE OF A DULY AUTHORIZED SERIES OF BONDS (herein the "Series 2016 Bonds") originally issued in the aggregate principal amount of \$\_\_\_\_\_ pursuant to a Master Resolution (the "Master Resolution"), as supplemented by a Seventh Supplemental Resolution (the "Seventh Supplemental Resolution" and, together with the Master Resolution, the "Resolution"), both adopted by the Board of Directors of the Authority for the purpose of (a) financing the design, acquisition, and construction of the System, including: (i) the Authority's 2025 Distribution System and (ii) a shared transmission pipeline (Second Source Transmission Line Phase I); (b) funding a debt service reserve fund or a Reserve Fund Obligation; (c) funding capitalized interest; and (d) paying costs of issuance of the Series 2016 Bonds, under and pursuant to the authority of the Constitution and laws of the State of Texas, including Article XVI, Section 59, Texas Constitution, Chapter 1029, Acts of the 76th Texas Legislature 1999 (Regular Session), as amended by Chapter 1296, Acts of the 77th Texas Legislature 2001 (Regular Session), and all other applicable law.

THIS BOND, TOGETHER WITH THE PREVIOUSLY ISSUED SENIOR LIEN OBLIGATIONS and any Senior Lien Obligations issued in the future, are special obligations of the Authority that are equally and ratably payable from and secured by a first lien on the "Gross Revenues" as collected and received by the Authority from the imposition and collection of certain fees within the territory of the Authority and the collection of certain revenues from the operation and ownership of the Authority's System (as defined and provided in the Master Resolution), which Gross Revenues are required to be set aside for and pledged to the payment of the Series 2016 Bonds and all additional obligations issued on a parity therewith (subject only to the prior use of such Gross Revenues to pay Operation and Maintenance Expenses in accordance with the Master Resolution). The Master Resolution requires that Gross Revenues be deposited in certain funds established therein, including funds maintained for the payment of the Series 2016 Bonds and all additional obligations issued on a parity therewith, as more fully described therein. The Gross Revenues remaining after payment of Operation and Maintenance Expenses are also referred to in the Resolution as the "Net Revenues". This bond and the series of which it is a part, together with the interest thereon, are payable solely from such Net Revenues and do not constitute an indebtedness or general obligation of the Authority.

THE SERIES 2016 BONDS MATURING ON AND AFTER [December 15, 20\_\_ are subject to redemption at the option of the Authority prior to their scheduled maturity on December 15, 20\_\_], or any date thereafter, in inverse order of maturity, in whole or in part with funds derived from any available and lawful source (but if less than all the Series 2016 Bonds of a single maturity are called for redemption, those bonds called shall be selected by lot or other

customary random method by the Paying Agent/Registrar), at a price of par plus accrued interest to the date fixed for redemption.

**SERIES 2016 BONDS MAY BE REDEEMED IN PART** only in integral multiples of \$5,000. If a Series 2016 Bond subject to redemption is in a denomination larger than \$5,000, a portion of such Series 2016 Bond may be redeemed, but only in integral multiples of \$5,000. In selecting portions of Series 2016 Bonds for redemption, the Paying Agent/Registrar shall treat each Series 2016 Bond as representing that number of Series 2016 Bonds of \$5,000 denomination which is obtained by dividing the principal amount of such Series 2016 Bond by \$5,000. Upon surrender of any Series 2016 Bond for redemption in part, the Paying Agent/Registrar, in accordance with the provisions of the Resolution, shall authenticate and deliver in exchange therefore a Series 2016 Bond or Series 2016 Bonds of like maturity and interest rate in an aggregate principal amount equal to the unredeemed portion of the Series 2016 Bond so surrendered.

**NOTICE OF ANY REDEMPTION** identifying the Series 2016 Bonds or portions thereof to be redeemed shall be sent by United States mail, first-class, postage prepaid, to the Registered Owners thereof at their addresses as shown on the books of registration kept by the Paying Agent/Registrar not less than thirty (30) days before the date fixed for such redemption. By the date fixed for redemption, due provision shall be made with the Paying Agent/Registrar for the payment of the redemption price of the Series 2016 Bonds called for redemption. If such notice of redemption is given, and if due provision for such payment is made, all as provided above, the Series 2016 Bonds which are to be so redeemed thereby automatically shall be redeemed prior to their scheduled maturities, they shall not bear interest after the date fixed for redemption, and they shall not be regarded as being outstanding except for the purpose of being paid by the Paying Agent/Registrar with the funds so provided for such payment.

**WITH RESPECT TO ANY OPTIONAL REDEMPTION** of the Bonds, unless all prerequisites to such redemption required by the Resolution have been met, including moneys sufficient to pay the principal of and premium, if any, and interest on the Bonds to be redeemed having been received by the Paying Agent/Registrar prior to the giving of notice of such redemption, such notice shall state that said redemption may, at the option of the Authority, be conditional upon the satisfaction of all prerequisites and receipt of such moneys by the Paying Agent/Registrar on or prior to the date fixed for such redemption, and if such prerequisites to the redemption and sufficient moneys are not received, such notice shall be of no force and effect, the Authority shall not redeem such Bonds and the Paying Agent/Registrar shall give notice, in the manner in which the notice of redemption was given, to the effect that the Bonds have not been redeemed.

**THE AUTHORITY HAS RESERVED THE RIGHT** to issue additional revenue bonds and other obligations, subject to the restrictions contained in the Master Resolution, which bonds may be secured by a lien on a parity with, or subordinate and inferior to, the lien on the Net Revenues securing this bond and the series of which it is a part.

**THE SERIES 2016 BONDS ARE TRANSFERABLE** only upon presentation and surrender thereof at the principal corporate trust office of the Paying Agent/Registrar, duly endorsed for transfer or accompanied by an assignment duly executed by the registered owner or

his authorized representative, subject to the terms and conditions of the Seventh Supplemental Resolution.

THE SERIES 2016 BONDS ARE EXCHANGEABLE at the principal corporate trust office of the Paying Agent/Registrar for Series 2016 Bonds in the principal amount of \$5,000 or any integral multiple thereof, subject to the terms and conditions of the Seventh Supplemental Resolution.

THE PAYING AGENT/REGISTRAR IS NOT REQUIRED to accept for transfer or exchange any Series 2016 Bond called for redemption during the fifteen (15) days prior to mailing of any notice of redemption; provided, however, that such limitation shall not apply to the transfer or exchange by the registered owner of the unredeemed portion of a Series 2016 Bond called for redemption in part.

THE REGISTERED OWNER HEREOF shall never have the right to demand payment out of any funds raised or to be raised by taxation. The Authority has no taxing power to pay debt service.

REFERENCE IS HEREBY MADE TO THE RESOLUTION, a copy of which is on file in the office of the Paying Agent/Registrar, and to all of the provisions of which the Registered Owner of this bond by the acceptance hereof hereby assents, for definitions of terms; the description of and the nature and extent of the security for the Series 2016 Bonds; the priority for the application and use of the income and revenues of the System; the Net Revenues pledged to the payment of the principal of and interest on the Series 2016 Bonds; the nature and extent and manner of enforcement of the lien and pledge securing the payment of the Series 2016 Bonds; the terms and conditions for the issuance of additional revenue obligations, including additional Senior Lien Obligations; the terms and conditions for amending the Resolution; the terms and conditions relating to the transfer or exchange of this bond; the rights, duties, and obligations of the Authority and the Paying Agent/Registrar; the terms and provisions upon which the liens, pledges, charges and covenants made therein may be discharged at or prior to the maturity of this bond, and deemed to be no longer Outstanding thereunder; and for the other terms and provisions thereof. Capitalized terms used herein, unless otherwise defined, have the same meanings assigned in the Resolution.

IT IS HEREBY DECLARED AND REPRESENTED that this bond has been duly and validly issued and delivered; that all acts, conditions, and things required or proper to be performed, exist, and be done precedent to or in the issuance and delivery of this bond have been performed, existed, and been done in accordance with law; that the Series 2016 Bonds do not exceed any statutory limitation; and that provision has been made for the payment of the principal of and interest on this bond and all of the Series 2016 Bonds by the aforesaid first lien on and pledge of the Net Revenues.

THIS BOND shall not be valid or obligatory for any purpose or be entitled to any benefit under the Resolution unless this bond either (i) is registered by the Comptroller of Public Accounts of the State of Texas or (ii) is authenticated by the Paying Agent/Registrar by due execution of the authentication certificate manually endorsed hereon. Such duly executed

certificate of authentication shall be conclusive evidence that this bond was delivered by the Paying Agent/Registrar under the provisions of the Resolution.

IN WITNESS WHEREOF, the Authority has caused its corporate seal to be impressed or placed in facsimile hereon and has in the Resolution directed this bond to be signed by the President and countersigned by the Secretary of the Board of Directors by their printed facsimile signatures.

NORTH HARRIS COUNTY REGIONAL WATER  
AUTHORITY

---

President, Board of Directors

(AUTHORITY SEAL)

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Secretary, Board of Directors



**[FORM OF COMPTROLLER'S REGISTRATION CERTIFICATE]**

The following form of Comptroller's Registration Certificate shall be attached or affixed to each of the Series 2016 Bonds initially delivered.

THE STATE OF TEXAS                    §  
  §                   REGISTER NO. \_\_\_\_\_  
OFFICE OF THE COMPTROLLER       §  
  OF PUBLIC ACCOUNTS               §

I hereby certify that there is on file and of record in my office a certificate of the Attorney General of the State of Texas to the effect that this bond and the proceedings for the issuance hereof have been examined by him as required by law, that he finds that it has been issued in conformity with the Constitution and laws of the State of Texas and that it is a valid and binding special obligation of the North Harris County Regional Water Authority, payable from the revenues and other funds pledged to its payment by and in the proceedings authorizing the same, and I do further certify that this bond has this day been registered by me.

WITNESS MY SIGNATURE AND SEAL OF OFFICE this \_\_\_\_\_  
\_\_\_\_\_.

\_\_\_\_\_  
Comptroller of Public Accounts  
of the State of Texas

[SEAL]

**[FORM OF AUTHENTICATION CERTIFICATE]**

The following form of Authentication Certificate shall appear on each of the Series 2016 Bonds.

**AUTHENTICATION CERTIFICATE**

Registration Date: \_\_\_\_\_

This bond is one of the Bonds described in and delivered pursuant to the within-mentioned Master Resolution; and, except for the Bonds initially delivered, this bond has been issued in conversion of and exchange for or replacement of a bond, bonds or a portion of a bond or bonds of an issue which originally was approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts of the State of Texas.

[\_\_\_\_\_]

By: \_\_\_\_\_  
Authorized Signature

**[FORM OF ASSIGNMENT]**

The following form of assignment shall appear on each of the Series 2016 Bonds.

**ASSIGNMENT**

For value received, the undersigned hereby sells, assigns, and transfers unto

---

(Please print or type name, address, and zip code of Transferee)

---

(Please insert Social Security or Taxpayer Identification Number of Transferee)

the within bond and hereby irrevocably constitutes and appoints \_\_\_\_\_ attorney to transfer said bond on the books kept for registration thereof, with full power of substitution in the premises.

DATED:

---

Signature Guaranteed:

---

---

Registered Owner

NOTICE: The signature above must correspond to the name of the registered owner as shown on the face of this certificate in every particular, without any alteration, enlargement or change whatsoever.

---

Notice: Signature must be guaranteed by a member firm of the New York Stock Exchange or a commercial bank of trust company.

**EXHIBIT C**

**FORM OF SPECIAL ESCROW DEPOSIT AGREEMENT**

## **EXHIBIT D**

### **ANNUAL FINANCIAL STATEMENTS AND OPERATING DATA**

The financial information and operating data with respect to the Authority to be provided annually in accordance with Section 9.1 of the Resolution are as specified below.

#### **Annual Financial Statements and Operating Data**

1. The Authority's audited financial statements for the most recently concluded fiscal year and, to the extent that such statements are not completed and available, unaudited financial statements for such fiscal year.
2. Financial information and operating data for the Authority that conforms substantially to such information and data set out in the tables appearing under the captions "INVESTMENTS" and "FINANCIAL DATA," except for "Historical Debt Service Coverage (unaudited)," in the Official Statement for the Authority's Senior Lien Revenue Refunding Bonds, Series 2014.

#### **Accounting Principles**

The accounting principles referred to in such section are the accounting principles described in the notes to the financial statements referred to in paragraph 1 above.

PRIVATE PLACEMENT MEMORANDUM DATED \_\_\_\_\_, 2016

NEW ISSUE BOOK-ENTRY-ONLY

On the date of initial delivery of the Obligations (defined below), Co-Bond Counsel (shown on page ii) will render its opinion substantially in the form attached in APPENDIX C - FORM OF OPINION OF CO-BOND COUNSEL.

\$ \_\_\_\_\_  
**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
SENIOR LIEN REVENUE BONDS, SERIES 2016  
(the "Obligations")**

**Dated:** \_\_\_\_\_, 2016

**Due:** [December 15]

**Interest Date:** Interest on the Obligations will be payable on [June 15 and December 15 each year, commencing June 15, 2017] (each an "Interest Payment Date"). The Obligations will bear interest at the rates per annum set forth in "APPENDIX A - MATURITY SCHEDULE."

**Record Date:** The close of business on the last business day of the calendar month immediately preceding the applicable Interest Payment Date.

**Date Interest Accrues:** Each Bond shall bear interest from the Delivery Date thereof or the most recent Interest Payment Date to which interest has been paid or provided for at the rates per annum set forth in "APPENDIX A - MATURITY SCHEDULE."

**Redemption:** The Obligations are subject to redemption prior to maturity as provided herein. See "THE OBLIGATIONS - Redemption Provisions" herein.

**Authorized Denominations:** The Obligations are being issued as fully registered bonds in denominations of **\$5,000**, or any integral multiple thereof.

**Paying Agent /Registrar:** The paying agent ("Paying Agent /Registrar") for the Obligations is [\_\_\_\_\_].

**Book-Entry-Only System** Upon initial issuance, the ownership of the Obligations will be registered in the registration books of the Issuer kept by the Paying Agent/Registrar, in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC") to which principal, redemption premium, if any, and interest payments on the Obligations will be made. The purchasers of the Obligations will not receive physical delivery of bond certificates. Principal of, interest, and premium if any, on the Obligations will be payable at the designated office of the Paying Agent/Registrar in Houston, Texas as the same become due and payable.

**Issuer:** **NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY.**

**Official Action:** **SEVENTH SUPPLEMENTAL RESOLUTION**, dated \_\_\_\_\_, 2016.

**Purpose:** See "APPENDIX B - OFFICIAL ACTION."

**Security for the Obligations:** See "APPENDIX B - OFFICIAL ACTION."

**Ratings:** See "OTHER INFORMATION - Ratings"

**Delivery Date:** \_\_\_\_\_, 2016.

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**See "APPENDIX A - MATURITY SCHEDULE" for Principal Amounts, Maturities, Interest Rates,  
Prices or Yields, and Initial CUSIP Numbers**

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**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**

**BOARD OF DIRECTORS**

Alan J. Rendl	President
Kelly P. Fessler	Vice President
Lenox A. Sigler	Secretary
Ron Graham	Assistant Secretary
James D. Pulliam	Treasurer

**CONSULTANTS**

Andrews Kurth LLP and Radcliffe Bobbitt Adams Polley PLLC, Co-Bond Counsel

RBC Capital Markets, LLC and The GMS Group, L.L.C., Co-Financial Advisor

[\_\_\_\_\_], Paying Agent/Registrar

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**Private Placement Memorandum  
relating to**

\$ \_\_\_\_\_

**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
SENIOR LIEN REVENUE BONDS, SERIES 2016  
(the "Obligations")**

**INTRODUCTION**

This Private Placement Memorandum, including the cover page and appendices, contains brief descriptions of the Issuer, provides certain information with respect to the issuance by the Issuer, and summaries of certain provisions of the Obligations pursuant to the Official Action. Except as otherwise set forth herein, capitalized terms used but not defined in this Private Placement Memorandum have the meanings assigned to them in the Official Action. See "APPENDIX B – "FORM OF OFFICIAL ACTION" attached hereto.

APPENDIX A contains the maturity schedule for the Obligations. APPENDIX B contains the Official Action and a description of the purpose for the proceeds of the Obligations. APPENDIX C contains a copy of the proposed opinion of Bond Counsel with respect to the Obligations. The summaries of the documents contained in the forepart of this Private Placement Memorandum are not complete or definitive, and every statement made in this Private Placement Memorandum concerning any provision of any document is qualified by reference to such document in its entirety.

**THE OBLIGATIONS**

**General Description**

The Obligations are being issued in the aggregate principal amount set forth in APPENDIX A of this Private Placement Memorandum and will mature and be subject to redemption prior to maturity as described therein. The Obligations are being issued as fully registered bonds in denominations of \$5,000, or any integral multiple thereof. The Obligations will be dated as of \_\_\_\_\_, 2016, and will mature on the dates referenced thereon, and will bear interest at the rates per annum set forth in "APPENDIX A - MATURITY SCHEDULE."

Interest on the Obligations is payable semiannually on each Interest Payment Date, and will be calculated on the basis of a 360-day year consisting of twelve 30-day months. Principal of and the redemption price with respect to the Obligations will be payable to the Owners upon presentation and surrender at the principal office of the Paying Agent/Registrar.

**Purpose**

See "APPENDIX B - FORM OF OFFICIAL ACTION."

**Authority for Issuance**

The Obligations are issued pursuant to Chapter 1209, Acts of the 76th Texas Legislature 1999 (Regular Session) as amended by Chapter 1296, Acts of the 77th Texas Legislature 2001 (Regular Session), as amended, and the Official Action adopted by the Issuer.

**Security for the Obligations**

See "APPENDIX B - FORM OF OFFICIAL ACTION."

**Redemption Provisions**

On [December 15, 20\_\_], or on any date thereafter, the Obligations maturing on and after [December 15, 20\_\_] may be redeemed prior to their scheduled maturities, in inverse order of maturity, upon the written direction

of the Issuer, with funds provided by the Issuer, at par plus accrued interest to the date fixed for redemption as a whole, or in part, and if less than all of a maturity is to be redeemed the Paying Agent/Registrar will determine by lot the Obligations, or portions thereof within such maturity to be redeemed (provided that a portion of a Bond may be redeemed only in Authorized Denominations).

#### **Notice of Redemption; Selection of Obligations to Be Redeemed**

See "APPENDIX B - FORM OF OFFICIAL ACTION."

The Paying Agent/Registrar, so long as a Book-Entry-Only System is used for the Bonds, will send any notice of redemption of the Bonds, notice of proposed amendment to the Order or other notices with respect to the Bonds only to DTC. Any failure by DTC to advise any DTC participant, or of any DTC participant or indirect participant to notify the beneficial owner, shall not affect the validity of the redemption of the Bonds called for redemption or any other action premised on any such notice. Redemption of portions of the Bonds by the Issuer will reduce the outstanding principal amount of such Bonds held by DTC.

#### **Book-Entry-Only System**

*The information in this caption concerning The Depository Trust Company, New York, New York ("DTC") and DTC's book entry system has been obtained from DTC and the Issuer makes no representation or warranty nor takes any responsibility for the accuracy or completeness of such information.*

DTC will act as securities depository for the Obligations. The Obligations will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered certificate will be issued for each maturity of the Obligations and deposited with DTC. See APPENDIX B - "FORM OF OFFICIAL ACTION."

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.6 million issues of United States and non-United States equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both United States and non-United States securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both United States and non-United States securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of "AA+." The DTC Rules applicable to its Participants are on file with the SEC. More information about DTC can be found at [www.dtcc.com](http://www.dtcc.com).

### **TAX MATTERS**

#### **Opinion**

Bond Counsel will deliver its opinion on the date of delivery of the Obligations substantially in the form as attached in "APPENDIX C - FORM OF OPINION OF CO-BOND COUNSEL."

## OTHER INFORMATION

### Forward Looking Statements

The statements contained in this Private Placement Memorandum, including the cover page, appendices, and any other information or documents provided by the Issuer, that are not purely historical, are forward-looking statements, including statements regarding the Issuer's expectations, hopes, intentions, or strategies regarding the future. Holders and beneficial owners of the Obligations have placed reliance on forward-looking statements. All forward looking statements included in this Private Placement Memorandum are based on information available to the Issuer on the date hereof. It is important to note that the Issuer's actual results could differ materially from those in such forward-looking statements.

### Ratings

**No application has been made to any ratings agency or municipal bond insurance company for qualification of the Obligations for ratings or municipal bond insurance, respectively, nor is it anticipated the Issuer would have received an investment grade rating had one been applied for.**

### Settlement of Purchase of Obligations

The Texas Water Development Board (the "Board") and the Issuer intend for the delivery of the Obligations to be facilitated through the book-entry-only system of DTC. See "THE OBLIGATIONS - Book-Entry-Only System." In connection with the delivery of the Obligations, a settlement agent may be used to effect the delivery of the Obligations. If such a settlement agent is used, such settlement agent (i) is being used solely to facilitate book-entry delivery of the Obligations, (ii) will be acting solely as a "Clearing DTC Participant" and not as an "underwriter" (each as defined in Section 2(a)(1) of the U.S. Securities Act of 1933, as amended, (iii) is not acting as a fiduciary or municipal advisor to the Board or the Issuer with regard to the Obligations and, accordingly, has no fiduciary duty to either the Board of the Issuer under Federal or state securities laws, and therefore is not required by federal or state law to act in the best interests of the Board or the Issuer, (iv) in providing information to either the Board or the Issuer, is not providing "advice" within the meaning of Section 15B of the Securities Exchange Act of 1934, as amended, and that the information provided has not been relied on by either the Board or the Issuer in the issuance of the Obligations and (v) has not provided any legal, accounting, regulatory or tax advice to the Issuer.

## LITIGATION

### General

On the date of delivery of the Obligations to the initial purchasers thereof, the Issuer will execute and deliver a certificate to the effect that, except as disclosed herein, no litigation of any nature has been filed or is pending, as of that date, to restrain or enjoin the issuance or delivery of the Obligations or which would affect the provisions made for their payment or security or in any manner questioning the validity of the Obligations.

### The Issuer

There is no litigation, proceeding, inquiry, or investigation pending by or before any court or other governmental authority or entity (or, to the best knowledge of the Issuer, threatened) that adversely affects the power, authority or obligation of the Issuer to deliver the Obligations, the security for, or the validity of, the Obligations or the financial condition of the Issuer.

## CONTINUING DISCLOSURE OF INFORMATION

In the Official Action, the Issuer has agreed for the benefit of the holders and beneficial owners of the Obligations to provide certain updated financial information and operating data, and timely notice of specified events, to the Municipal Securities Rulemaking Board through the Electronic Municipal Market Access System. The Issuer is required to observe the agreement for so long as it remains obligated to advance funds to pay the Obligations. SEE APPENDIX B - "FORM OF OFFICIAL ACTION."

**Compliance with Prior Undertakings [TO BE CONFIRMED]**

During the last five years, the Issuer has complied in all material respects with its continuing disclosure undertakings, with the possible exception of a January 24, 2013 notice provided to the MSRB of rating changes affecting its Series 2003 Bonds and Series 2005 Bonds that resulted from downgrades of municipal bond insurance companies insuring such bonds, of which the Issuer had no prior notice. The notice filed on January 24, 2013 also contained notice that the filing was late and notice of the then-current rating on the bonds. On September 24, 2014, the Issuer provided notice to the MSRB of a rating change affecting its Series 2005 Bonds that resulted from a March 18, 2014 upgrade of a municipal bond insurance company insuring such bonds, of which the Issuer had no prior notice.

**MISCELLANEOUS**

Any statements made in this Private Placement Memorandum involving matters of opinion or of estimates, whether or not so expressly stated, are set forth as such and not as representations of fact, and no representation is made that any of the estimates will be realized. Neither this Private Placement Memorandum nor any statement that may have been made verbally or in writing is to be construed as a contract with the owners of the Obligations.

The information contained above is neither guaranteed as to accuracy or completeness nor to be construed as a representation by the Issuer. The information and expressions of opinion herein are subject to change without notice and neither the delivery of this Private Placement Memorandum nor any sale made hereunder is to create, under any circumstances, any implication that there has been no change in the affairs of the Issuer or the Issuer from the date hereof.

The Private Placement Memorandum is submitted in connection with the sale of the securities referred to herein to the Texas Water Development Board on the Delivery Date and may not be reproduced or used, as a whole or in part, for any other purpose.

**ADDITIONAL INFORMATION**

The Private Placement Memorandum speaks only as of its date and the information contained herein is subject to change. Descriptions of the Obligations and the Official Action and any other agreements and documents contained herein constitute summaries of certain provisions thereof and do not purport to be complete. This Private Placement Memorandum was approved by the Issuer.

**APPENDIX A**  
**MATURITY SCHEDULE**

<u>Maturity Date</u> ( <u>[December 15]</u> )	<u>Principal</u> <u>Amounts (\$)</u>	<u>Interest</u> <u>Rates (%)</u>	<u>CUSIP No.</u>
--	---	-------------------------------------	------------------

(Interest accrues from Delivery Date)

**APPENDIX B**  
**FORM OF OFFICIAL ACTION**

**APPENDIX C**  
**FORM OF OPINION OF CO-BOND COUNSEL**

HOU:3662719.1

C-1

**Project Location**

County: Harris

Primary: Y

Can you locate your project to a specific address?: N

Project Address:

Project City:

Project State: TX

Project ZIP:





# Project Schedule

- a) Requested loan closing date: 12-09-2016
- b) Estimated date to submit environmental planning documents.: 12-09-2016
- c) Estimated date to submit engineering planning documents.: 12-09-2016
- d) Estimated date for completion of design.: 12-09-2016
- e) Estimated Construction start date for first contract.: 12-09-2016
- f) Estimated Construction end date for last contract: 12-09-2016

Population and Water Demand Projections

	Population						Demand (Acre-Feet per Year)						
	2020	2030	2040	2050	2060	2070	2020	2030	2040	2050	2060	2070	
NHCRWA	731,265	780,933	821,599	856,170	886,651	914,489	123,598	129,683	134,863	139,655	144,379	148,850	
Jersey Village	7,723	7,790	7,936	8,096	8,272	8,465	1,746	1,733	1,742	1,764	1,799	1,841	
The Woodlands	16,144	17,484	19,174	20,436	21,378	22,083	3,873	4,150	4,520	4,800	5,014	5,177	
Tomball	12,742	13,457	14,110	14,677	15,182	15,644	3,210	3,345	3,474	3,595	3,714	3,826	
<b>Total</b>	<b>767,874</b>	<b>819,664</b>	<b>862,819</b>	<b>899,379</b>	<b>931,483</b>	<b>960,681</b>	<b>132,427</b>	<b>138,911</b>	<b>144,599</b>	<b>149,814</b>	<b>154,906</b>	<b>159,694</b>	
							<b>Total Demand (MGD)</b>	<b>118</b>	<b>124</b>	<b>129</b>	<b>134</b>	<b>138</b>	<b>143</b>
							<b>Total Surface Water (MGD)</b>	<b>35</b>	<b>74</b>	<b>103</b>	<b>107</b>	<b>111</b>	<b>114</b>
							<b>Total Groundwater (MGD)</b>	<b>83</b>	<b>50</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>

Texas Water Development Board Water Project Information								
A. Project Name <b>NHCRWA Transmission Line</b>		B. Project No.		C. County <b>Harris</b>		D. Regional Planning Group (A-P) <b>H</b>		
E. Program(s) <b>SWIFT</b>		F. Loan <input checked="" type="checkbox"/> / Grant <input type="checkbox"/> Amount:		G. Loan Term: <b>20 years</b>				
H. Water Project Description: (Multiphase project, new or expansion; plant, well, storage, pump station, distribution system, etc)  <b>Transmission System (Second Source Line)</b>  <b>Attach map of service area affected by Project or other documentation.</b>								
I. Is an Inter Basin Transfer potentially involved? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				J. Is project located in a Groundwater District (If yes, identify District by name)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				
K. Projected Population from application for at least a 20 year period. Attach justification and list service area populations if different from Planning Area.		Year	Reference Year	2010	2020	2030	2040	<b>2050</b>
		Population Projection		<b>574,317</b>	<b>767,874</b>	<b>819,664</b>	<b>862,819</b>	<b>899,379</b>
Project Design Year	<b>2040</b>		Design Population	<b>862,819</b>				
L. Is the proposed project included in a current Regional Water Plan? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Don't Know <input type="checkbox"/> (If Yes, please specify on what page in the Regional Water Plan - Regional Water Plan Page Number: <b>4B23(1-2)</b> )								
M. What type of water source is associated directly with the proposed project? Surface Water <input checked="" type="checkbox"/> Groundwater <input type="checkbox"/> Reuse <input type="checkbox"/>								
N. Will the project increase the volume of water supply? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								
O. What volume of water is the project anticipated to deliver/ treat per year? <b>115,118</b> Acre-Feet/Year								
P. Current Water Supply Information								
Surface Water Supply Source / Provider Names <b>Lake Houston/City of Houston</b>		Certificate No. See City of Houston Application		Source County <b>Harris</b>		Annual Volume and Unit <b>27 MGD</b>		
Groundwater Source Aquifer <b>Gulf Coast Aquifer</b>		Well Field location Northwest Harris County (within boundaries of NHCRWA)		Source County <b>Harris</b>		Annual Volume and Unit <b>56 MGD</b>		
Q. Proposed Water Supply Associated Directly with the Proposed Project								
Surface Water Supply Source / Provider Names <b>Lake Houston/City of Houston</b>		Certificate No. See City of Houston Application		Source County <b>Harris</b>		Annual Volume and Unit <b>103 MGD</b>		
Groundwater Source Aquifer <b>Gulf Coast Aquifer</b>		Well Field location: Northwest Harris County (within boundaries of NHCRWA)		Source County <b>Harris</b>		Annual Volume and Unit <b>26 MGD</b>		
R. Consulting Engineer Name <b>Tom Rolen</b>			Telephone No. <b>713-267-3181</b>		E-mail address <b>tom.rolen@aecom.com</b>			
S. Applicant Contact Name, Title Mark Evans, Planning and Governmental Affairs Director			Telephone No. <b>281-440-3924</b>		E-mail address <b>mevans@nhcrwa.org</b>			

# Property Rights

a) Does the applicant currently own all the property rights, groundwater permits and surface water rights needed for this project?: Y

b) If all property rights, groundwater permits, and surface water rights, needed for this project have not yet been acquired, identify the rights and/or permits that will need to be acquired and provide the anticipated date by which the applicant expects to have acquired such rights and/or permits.

Type of Permit Water Right	Entity from which the right must be acquired	Acquired by lease or full ownership	Expected acquisition date	Permit / Water Right ID No.
-------------------------------	--	--	------------------------------	--------------------------------

Attachment Part D63 – Surface Water Affidavit

STATE OF TEXAS                    §  
  §  
COUNTY OF HARRIS               §

**SURFACE WATER  
AFFIDAVIT**

Before me, the undersigned notary, on this day personally appeared Jimmie Schindewolf, a person whose identity is known to me. After I administered an oath to him/her, upon his/her oath he/she said:

1. I am over 18 years of age, of sound mind, and capable of making this affidavit. The facts stated in this affidavit are within my personal knowledge and are true and correct.
2. I am an authorized representative of the North Harris County Regional Water Authority, an entity that has filed an application for financial assistance with the Texas Water Development Board for a project that proposes the development of a new surface water supply source.
3. Does the applicant possess a Certificate of Adjudication and/or Water Rights Permit(s) issued by the Texas Commission on Environmental Quality or a predecessor agency authorizing the appropriation and use of the surface water needed for the Project?

Yes                     No

Please attach a copy of the Certificate(s) of Adjudication and Water Rights Permit(s).

**Item attached:**   Yes                           No

4. Does the applicant have the contractual right to use the surface water from an entity that enjoys the right to appropriate and use the surface water needed for the project?

Yes                     No

Please attach a copy of any draft or executed water supply contract, lease or other legal instrument providing contractual authorization to use the surface water needed for the Project.

**Item attached:**   Yes                           No

Please identify the Certificate of Adjudication(s) and Water Rights Permit(s) possessed by the wholesale water provider pursuant to

Attachment Part D63 – Surface Water Affidavit

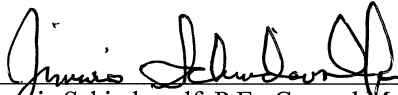
which the contract, lease or other legal instrument has been or will be executed.

Certificate of Adjudications: \_\_\_\_\_

**Item attached:** Yes  No

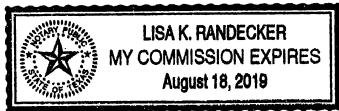
Water Rights Permit(s): See City of Houston SWIFT applications for a copy of the permit.

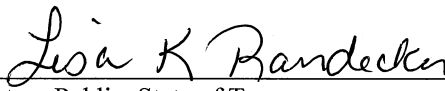
**Item attached:** Yes  No

  
\_\_\_\_\_  
Jimmie Schindewolf, P.E., General Manager of the  
North Harris County Regional Water Authority

SWORN TO AND SUBSCRIBED BEFORE ME by Jimmie Schindewolf, P.E., on this 2<sup>nd</sup> day of May, 2016.

(SEAL)



  
\_\_\_\_\_  
Notary Public, State of Texas

No groundwater rights associated with this project.



# Permits & Easements

Are any major permits necessary for completion of the project?: N

Has the applicant obtained all necessary land and easements for the project?: N

Description of Land or Easement Permit	Entity from which the permit or right must be acquired	Acquired by lease or full ownership	Expected acquisition date	To Be Funded by TWDB (Yes/No)
Multiple properties along proposed ROW	Multiple property owners along proposed	OWN	01-01-2020	Y

# Environmental Determination

Has a Categorical Exclusion (CE), Determination of No Effect, Finding of No Significant Impact (FONSI), Record of Decision (ROD), or any other environmental determination been issued for this project?: N

## CE/DNE

Is the project potentially eligible for a CE/ Determination of No Effect (DNE) because it involves only minor rehabilitation or the functional replacement of existing equipment?: N

# Adverse Environmental/Social Impacts

Are there potentially adverse environmental or social impacts that may require mitigation or extensive regulatory agency or public coordination (e.g. known impacts to properties eligible for listing on the National Register of Historic Places; potentially significant public controversy; need for an individual permit from the U.S. Army Corps of Engineers)?: N

## Associated PIF(s)

PIF number(s):

There are no associated PIFs.

# Additional Attachments

The following documents are attached after this page:

Engineering Consultant Contracts.pdf

Project Schedule for NHCRWA Transmission Line.pdf

Financial Info\_Bond Ratings.pdf

**TWDB Application for Financial Assistance**  
**Part A – General Information**  
**6. Applicant's Consultants**  
(in addition to previously submitted a. through f.)

**g. AEI Engineering, Inc.**

Nancy Blackwell, P.E., President  
Tom Matkin, P.E., Vice President  
616 Cypress Creek Pkwy., Suite 250  
Houston, TX 77090-3037  
281/350-7027 FAX 281/350-7035  
Email: tmatkin@aeiengr.com  
Email: nblackwell@aeiengr.com

**h. ARCADIS U.S., Inc.**

Edward Quiroz, Project Manager  
11490 Westheimer, Suite 600  
Houston, TX 77077  
281/497-6900 (main) FAX 281/496-2936  
281/509-6414 (Edward Quiroz)  
Email: edward.quiroz@arcadis-us.com

**i. Binkley & Barfield, Inc.**

Larry M. Barfield, P.E., President  
1710 Seamist Drive  
Houston, TX 77008-3189  
713/869-3433 FAX 713/869-6702  
Email: lmb@binkleybarfield.com

**j. Brown & Gay Engineers, Inc.**

Dave Scholler, P.E., Senior Project Manager  
10777 Westheimer, Suite 400  
Houston, TX 77042  
281/558-8700 FAX 281/558-9701  
Direct: 713/488-8148  
Email: dscholler@browngay.com

**k. Costello, Inc.**

Samuel Kruse, Jr., P.E.  
9990 Richmond Avenue Suite 450, North Building  
Houston, Texas 77042  
713/783-7788 Fax: 713/783-3580  
Email: skruse@coseng.com

**l. Dannenbaum Engineering Corporation**

James D. Dannenbaum, P.E., Chairman of the Board  
Wayne Ahrens, P.E., Chief Operating Officer  
3100 W. Alabama  
Houston, TX 77098  
713/520-9570 FAX 713/527-6404 [James]  
713/527-6378 FAX 713/527-6338 [Wayne]  
Email: jdd@dannenbaum.com  
Email: w.ahrens@dannenbaum.com

**m. IDS Engineering Group**

Jeff Ross, P.E., Senior Vice President  
13430 Northwest Freeway, #700  
Houston, TX 77040  
713/462-3178 FAX 713/462-1631  
Email: jeross@idsengineeringgroup.com

**n. Jacobs Engineering Group Inc.**

Wendell L. "Buddy" Barnes, P.E., FSAME, Operations Manager  
832/351-7954 FAX 832/351-7700  
Vernon Webb, P.E., Manager of Projects  
281/983-2357 FAX 832/351-7766  
5995 Rogerdale Road  
Houston, TX 77072  
Mobile: 713/248-8257 (Buddy Barnes)  
Mobile: 832/473-2162 (Vernon Webb)  
Email: Wendell.Barnes@jacobs.com  
Email: Vernon.Webb@jacobs.com

**o. Jones & Carter, Inc.**

Tobin Synatschk, P.E., Water Practice Leader  
David Warner, P.E. (281/363-4039)  
6335 Gulfon, Suite 100  
Houston, TX 77081  
713/777-5337 FAX 713/777-5976  
Email: tsynatschk@jonescarter.com  
Email: dwarner@jonescarter.com

**p. Klotz Associates, Inc.**

D. Wayne Klotz, P.E., President  
Ralph Cox, P.E., Vice President  
1160 Dairy Ashford Street, Suite 500  
Houston, TX 77079  
281/589-7257 FAX 281/589-7309  
Email: wayne.klotz@klotz.com  
Email: Ralph.cox@klotz.com

**q. LBG-Guyton Associates**

W. John Seifert, Jr., P.E., Principal  
11111 Katy Freeway, Suite 400  
Houston, TX 77079  
713/468-8600 FAX 713/468-4956  
Email: jseifert@lbgguyton.com

**r. Sander Engineering Corporation**

Dennis Sander, P.E.  
1250 W Sam Houston Pkwy S, Ste 400  
Houston, Texas 77042  
713/784-4830 Fax: 713/784-4052  
Email: dsander@sandereng.com

**s. Zarinkelk Engineering Services, Inc.**

Giti Zarinkelk, P.E.  
617 Caroline Street  
Houston, Texas 77002  
832/242-2426 Fax: 832-242-2445  
Email: giti.zarinkelk@zarinkelk.com



Jimmie Schindewolf, P.E.  
General Manager

December 28, 2006

BOARD OF DIRECTORS  
Alan J. Rendt, *President*  
Kelly Fessler, *Vice President*  
Lenox A. Sigler, *Secretary*  
James D. Pulliam, *Treasurer*  
Ron Graham, *Asst. Secretary*

Mark W. Adam, P.E., President  
AEI Engineering, Inc.  
616 FM 1960 West, Suite 250  
Houston, Texas 77090-3037

Re: Amended and Restated Agreement For Professional Engineering Services

Dear Mr. Adam:

Transmitted herewith please find one fully executed duplicate original of the Amended and Restated Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and AEI Engineering, Inc. This Agreement was approved by the Authority Board of Directors at the November 6, 2006, Board meeting. I am also sending one duplicate original to Tom Rolan (Authority Program Director), one to Robin Bobbitt (Authority General Counsel), and I am retaining two for the Authority contract file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

Jimmie Schindewolf, P.E.  
General Manager

JAS/lrs

Attachment

Cc: Robin S. Bobbitt, Johnson Radcliff Petrov & Bobbitt P.L.L.C. - w/attachment  
Tom Rolan, P.E., Turner Collie & Braden, Inc. - w/attachment  
Shawn Mandagiri, P.E., NHCRWA  
Cyndi Plunkett, NHCRWA - w/attachment

3648 FM 1960 West, Suite 110 ♦ Houston, TX 77068 ♦ 281-440-3924 ♦ Fax: 281-440-4104

Visit online: [www.nhcrwa.com](http://www.nhcrwa.com)

**AMENDED AND RESTATED AGREEMENT  
FOR PROFESSIONAL ENGINEERING SERVICES**

(AEI Engineering, Inc.)

THE STATE OF TEXAS    §  
                                  §  
COUNTY OF HARRIS    §

THIS AMENDED AND RESTATED AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Amended Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and AEI Engineering, Inc. (formerly Alexander Engineering, Inc.) (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects;

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

The Authority and the Engineer have previously entered into an Agreement for Professional Engineering Services; however, due to changed circumstances and the need for clarification and revision, the Authority and the Engineer desire to enter into this Amended Agreement;

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION I**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected in the detailed Scope of Services attached as **Appendices A and A-1** and that are specifically identified in the Scope of Services that will accompany each Work Authorization issued by the General Manager.
  
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional

services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).

3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.
4. "Design Phase Agreed Estimate" shall mean the estimate of probable Construction Cost for a Construction Package developed at the completion of the approved Preliminary Engineering Phase, updated at the completion of the Design Phase and agreed to in writing by the General Manager and the Engineer.
5. "Preliminary Phase Agreed Estimate" shall mean the estimate of probable Construction Cost developed and agreed to in writing by the General Manager and the Engineer prior to commencing work on the Preliminary Engineering Phase of the Project. This agreed estimate applies only to the Preliminary Engineering Phase.
6. "Program Manager" shall mean the Authority's manager of its water supply program.
7. "Project" shall mean a design and/or construction project of the Authority authorized by the General Manager through the issuance of a Work Authorization.

## SECTION II

### CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Amended Agreement, the General Manager of the Authority or his designee (hereinafter the "General Manager") may deliver to the Engineer written authorization (hereinafter known as "Work Authorization") in accordance with this Section for the performance of certain professional services with regard to specified Authority projects, which services the Engineer shall then perform in accordance with this Amended Agreement. The General Manager may authorize the Engineer to provide all or any of the engineering and related services that are listed in **Appendices A and A-1**, attached hereto and made a part hereof.

The Authority shall have no obligation to pay for any services hereunder that have been rendered without the prior Work Authorization of the General Manager. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the Authority with progress reports at such times and in such manner as may be requested by the General Manager. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the General Manager as soon as possible.



### SECTION III

#### TIME OF PERFORMANCE

Upon receipt of a Work Authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The Authority shall have no obligation to pay for a service performed after the required completion date for same, as set forth in its Work Authorization, except to the extent the date for required completion is extended and continuation of such service is approved by the General Manager.

### SECTION IV

#### THE ENGINEER'S COMPENSATION

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blue-line drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof, costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Amended Agreement are described as follows:

Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in **Appendix C**.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.

For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.

The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### SECTION V

##### TIME OF PAYMENT

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Amended Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager", in a form suitable to the Authority, setting forth the services provided under this Amended Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person

performing the services and countersigned by his/her supervisor certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Amended Agreement have been performed. Within forty-five (45) days after the performance of all services provided for in this Amended Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Amended Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

#### SECTION VI TERMINATION

Either party may terminate this Amended Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Amended Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Amended Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Amended Agreement, less such payments on account of the charges as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Amended Agreement shall be delivered to the Authority when and if this Amended Agreement is terminated.

#### SECTION VII NOTICE

Any notice required to be given under the provisions of this Amended Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Amended Agreement, all notices shall be delivered to the following addresses:

To the Engineer: ABI Engineering, Inc.  
616 FM 1960 West, Suite 250  
Houston, Texas 77090-3037

Attention: Mark W. Adam, P.E., President

To the Authority: North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Attention: General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### SECTION VIII

#### SUCCESSORS AND ASSIGNS

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Amended Agreement and to the successors, executors, administrators and assigns of such other party, in respect to all covenants of this Amended Agreement. Neither the Authority nor the Engineer shall assign, sublet, or transfer its or his/her interest in this Amended Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

#### SECTION IX

#### PUBLIC CONTACT

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Amended Agreement or any requested service shall be referred to the General Manager.

#### SECTION X

#### COMPLIANCE AND STANDARDS

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the

Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### SECTION XI

#### LICENSE REQUIREMENTS

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Amended Agreement.

#### SECTION XII

#### INSURANCE AND INDEMNIFICATION

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Amended Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Amended Agreement and that of its subsconsultants or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subsconsultants (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.

SECTION XIII  
OWNERSHIP OF PLANS, COPYRIGHT, AND  
OTHER INTELLECTUAL PROPERTY

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Amended Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Amended Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Amended Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Amended Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Amended Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Amended Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor; and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement.

Copies of all complete or partially complete information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes therefor, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement, shall also be delivered

by the Engineer to the General Manager when and if this Amended Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

#### **SECTION XIV**

#### **MODIFICATIONS**

This instrument contains the entire Amended Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

#### **SECTION XV**

#### **AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Amended Agreement and all questions as to the acceptable fulfillment of this Amended Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Amended Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Amended Agreement.

#### **SECTION XVI**

#### **SEVERABILITY**

Any provision or part of this Amended Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Amended Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.



**SECTION XVII**  
**MERGER**

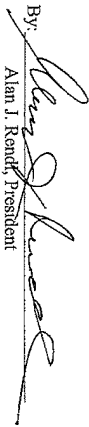
The Parties agree that this Amended Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Amended Agreement.

[The remainder of this page intentionally left blank.]

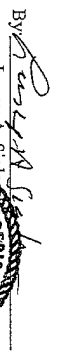
SECTION XVIII  
EXECUTION

The Authority executes this Amended Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Amended Agreement shall not become effective until executed by all parties hereto.

NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

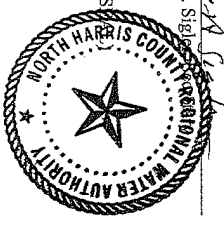
By:   
Alan J. Rendf, President  
Date Signed: 12-22-06

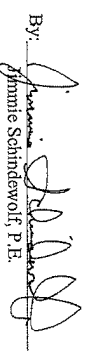
ATTEST:

By:   
Lenox A. Sigler

(AUTHORITY SECRETARY)

APPROVED:



By:   
Jhanita Schindewolf, P.E.  
General Manager

ADI ENGINEERING, INC.

By: 

Name: Mark W. Mann

Title: President

Date Signed: December 19, 2006

ATTEST:

By: Nancy Blackwell

Name: Nancy Blackwell

Title: Vice President

**APPENDIX A**  
**SCOPE OF SERVICES**  
**(AEI Engineering, Inc.)**

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see **Appendix A-1**) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnects, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.

## APPENDIX A-1

### SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES

(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

1. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternative water line alignments considering all relevant factors and prepare schematic layouts for each alternative route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review.
  - i. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.

2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues

- associated with such submittals within fourteen (14) calendar days of receipt of submittals from the Program Manager.
- e. Prepare revisions to the contract documents (i.e., change orders) at no charge to the Authority when such change orders are required to make clarifications, correct discrepancies, errors or omissions to the contract documents.
  - f. When requested by the Program Manager, evaluate contractor changes and cost proposals and recommend action to the Program Manager.
  - g. Make monthly site visits to the Project site to observe the progress and quality of the executed work. Such site visits are to be coordinated with the Program Manager and a site visit report shall be submitted to the Program Manager after each such site visit, indicating observations related to the executed work.
  - h. Attend final Project walkthrough.
  - i. Prepare "record drawings" indicating changes to the contract drawings and showing significant changes made to the work during the construction of the Project. Such changes will be based upon marked-up "record drawings" furnished to the Engineer by the Program Manager and the construction contractor.





APPENDIX C

CITY OF HOUSTON CURVES FOR MEDIAN COMPENSATION

(AEI Engineering, Inc.)



**CITY OF HOUSTON**  
Public Works and Engineering  
Department

Leo P. Brown  
Mayor

Jan C. Vanden Bergh, P.E.  
Director  
Public Works & Engineering  
P.O. Box 1892  
Houston, Texas 77251-1892  
P: 713.557.4027  
F: 713.557.4047  
www.ci.houston.tx.us

July 16, 2002

Christina M. Lindsay, Executive Director  
2000 West Loop West, Suite 240  
Houston, Texas 77018

Dear Ms. Lindsay:  
PW&E has selected the ranked Curves of Retention Compensation attached hereto. These curves and of the associated  
tables will be used for determining the engineering fees as appropriate in this Contract and all further notices.  
Sincerely,

Jan C. Vanden Bergh, P.E.  
Director  
Department of Public Works and Engineering

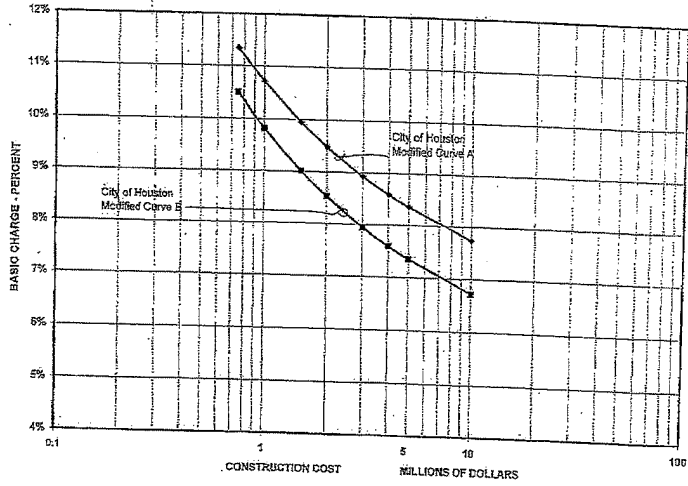
CC: Sheryl Nantepfili, P.E.  
Jeff Taylor  
Rick Vanden - Aviation Department  
Monique MacGibize - Building Services Department

Contract Reference: James T. Kelly, Chairman, Municipalities and Counties, Adam Williams and A. Bruce, Clerk, Dallas County, Texas  
Amended to Federal Contract Order, Order #2001-0001, Order #01-0001, Order #01-0001, Order #01-0001, Order #01-0001, Order #01-0001

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
Curves of Median Compensation  
Curves A and B

*Shankar*  
Shankar Rangiseti, P.E.  
Deputy Director

*J. C. Bosch*  
Jon C. Vanden Bosch, P.E.  
Director



02/26/2002

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
0.720	11.347%	\$85,080.31	0.720	10.489%	\$78,688.84		
0.775	11.210%	\$87,336.27	0.775	10.407%	\$80,486.49		
0.800	11.158%	\$88,292.42	0.800	10.325%	\$82,532.09		
0.825	11.106%	\$89,248.57	0.825	10.243%	\$84,577.69		
0.850	11.054%	\$90,204.72	0.850	10.161%	\$86,623.29		
0.875	10.998%	\$91,160.87	0.875	10.079%	\$88,668.89		
0.900	10.942%	\$92,117.02	0.900	10.000%	\$90,714.49		
0.925	10.886%	\$93,073.17	0.925	9.921%	\$92,760.09		
0.950	10.830%	\$94,029.32	0.950	9.842%	\$94,805.69		
0.975	10.774%	\$94,985.47	0.975	9.763%	\$96,851.29		
1.000	10.718%	\$95,941.62	1.000	9.684%	\$98,896.89		
1.025	10.662%	\$96,897.77	1.025	9.605%	\$100,942.49		
1.050	10.606%	\$97,853.92	1.050	9.526%	\$102,988.09		
1.075	10.550%	\$98,810.07	1.075	9.447%	\$105,033.69		
1.100	10.494%	\$99,766.22	1.100	9.368%	\$107,079.29		
1.125	10.438%	\$100,722.37	1.125	9.289%	\$109,124.89		
1.150	10.382%	\$101,678.52	1.150	9.210%	\$111,170.49		
1.175	10.326%	\$102,634.67	1.175	9.131%	\$113,216.09		
1.200	10.270%	\$103,590.82	1.200	9.052%	\$115,261.69		
1.225	10.214%	\$104,546.97	1.225	8.973%	\$117,307.29		
1.250	10.158%	\$105,503.12	1.250	8.894%	\$119,352.89		
1.275	10.102%	\$106,459.27	1.275	8.815%	\$121,398.49		
1.300	10.046%	\$107,415.42	1.300	8.736%	\$123,444.09		
1.325	9.990%	\$108,371.57	1.325	8.657%	\$125,489.69		
1.350	9.934%	\$109,327.72	1.350	8.578%	\$127,535.29		
1.375	9.878%	\$110,283.87	1.375	8.499%	\$129,580.89		
1.400	9.822%	\$111,240.02	1.400	8.420%	\$131,626.49		
1.425	9.766%	\$112,196.17	1.425	8.341%	\$133,672.09		
1.450	9.710%	\$113,152.32	1.450	8.262%	\$135,717.69		
1.475	9.654%	\$114,108.47	1.475	8.183%	\$137,763.29		
1.500	9.598%	\$115,064.62	1.500	8.104%	\$139,808.89		
1.525	9.542%	\$116,020.77	1.525	8.025%	\$141,854.49		
1.550	9.486%	\$116,976.92	1.550	7.946%	\$143,900.09		
1.575	9.430%	\$117,933.07	1.575	7.867%	\$145,945.69		
1.600	9.374%	\$118,889.22	1.600	7.788%	\$147,991.29		
1.625	9.318%	\$119,845.37	1.625	7.709%	\$150,036.89		
1.650	9.262%	\$120,801.52	1.650	7.630%	\$152,082.49		
1.675	9.206%	\$121,757.67	1.675	7.551%	\$154,128.09		
1.700	9.150%	\$122,713.82	1.700	7.472%	\$156,173.69		
1.725	9.094%	\$123,669.97	1.725	7.393%	\$158,219.29		
1.750	9.038%	\$124,626.12	1.750	7.314%	\$160,264.89		
1.775	8.982%	\$125,582.27	1.775	7.235%	\$162,310.49		
1.800	8.926%	\$126,538.42	1.800	7.156%	\$164,356.09		
1.825	8.870%	\$127,494.57	1.825	7.077%	\$166,401.69		
1.850	8.814%	\$128,450.72	1.850	7.000%	\$168,447.29		
1.875	8.758%	\$129,406.87	1.875	6.921%	\$170,492.89		
1.900	8.702%	\$130,363.02	1.900	6.842%	\$172,538.49		
1.925	8.646%	\$131,319.17	1.925	6.763%	\$174,584.09		
1.950	8.590%	\$132,275.32	1.950	6.684%	\$176,629.69		
1.975	8.534%	\$133,231.47	1.975	6.605%	\$178,675.29		
2.000	8.478%	\$134,187.62	2.000	6.526%	\$180,720.89		

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MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
1.825	8.641%	\$183,886.57	1.825	8.203%	\$185,218.08		
1.900	8.521%	\$189,685.83	1.850	8.342%	\$188,391.44		
1.975	8.401%	\$197,602.78	1.975	8.422%	\$198,397.44		
2.000	8.402%	\$198,647.68	2.000	8.522%	\$179,440.21		
2.025	8.403%	\$199,692.58	2.025	8.622%	\$172,176.80		
2.050	8.404%	\$199,636.78	2.050	8.722%	\$173,007.09		
2.075	8.405%	\$199,580.98	2.100	8.822%	\$170,058.12		
2.100	8.410%	\$197,901.06	2.100	8.922%	\$170,082.80		
2.125	8.389%	\$199,889.21	2.125	9.022%	\$160,818.80		
2.150	8.379%	\$201,562.97	2.150	9.122%	\$162,553.02		
2.175	8.369%	\$203,540.88	2.175	9.222%	\$164,288.18		
2.200	8.359%	\$205,518.79	2.200	9.322%	\$166,023.34		
2.225	8.349%	\$207,496.70	2.225	9.422%	\$167,758.50		
2.250	8.339%	\$209,474.61	2.250	9.522%	\$169,493.66		
2.275	8.329%	\$211,452.52	2.275	9.622%	\$171,228.82		
2.300	8.319%	\$213,430.43	2.300	9.722%	\$172,963.98		
2.325	8.309%	\$215,408.34	2.325	9.822%	\$174,699.14		
2.350	8.299%	\$217,386.25	2.350	9.922%	\$176,434.30		
2.375	8.289%	\$219,364.16	2.375	10.022%	\$178,169.46		
2.400	8.279%	\$221,342.07	2.400	10.122%	\$179,904.62		
2.425	8.269%	\$223,319.98	2.425	10.222%	\$181,639.78		
2.450	8.259%	\$225,297.89	2.450	10.322%	\$183,374.94		
2.475	8.249%	\$227,275.80	2.475	10.422%	\$185,110.10		
2.500	8.239%	\$229,253.71	2.500	10.522%	\$186,845.26		
2.525	8.229%	\$231,231.62	2.525	10.622%	\$188,580.42		
2.550	8.219%	\$233,209.53	2.550	10.722%	\$190,315.58		
2.575	8.209%	\$235,187.44	2.575	10.822%	\$192,050.74		
2.600	8.199%	\$237,165.35	2.600	10.922%	\$193,785.90		
2.625	8.189%	\$239,143.26	2.625	11.022%	\$195,521.06		
2.650	8.179%	\$241,121.17	2.650	11.122%	\$197,256.22		
2.675	8.169%	\$243,099.08	2.675	11.222%	\$198,991.38		
2.700	8.159%	\$245,076.99	2.700	11.322%	\$200,726.54		
2.725	8.149%	\$247,054.90	2.725	11.422%	\$202,461.70		
2.750	8.139%	\$249,032.81	2.750	11.522%	\$204,196.86		
2.775	8.129%	\$251,010.72	2.775	11.622%	\$205,932.02		
2.800	8.119%	\$252,988.63	2.800	11.722%	\$207,667.18		
2.825	8.109%	\$254,966.54	2.825	11.822%	\$209,402.34		
2.850	8.099%	\$256,944.45	2.850	11.922%	\$211,137.50		
2.875	8.089%	\$258,922.36	2.875	12.022%	\$212,872.66		
2.900	8.079%	\$260,900.27	2.900	12.122%	\$214,607.82		
2.925	8.069%	\$262,878.18	2.925	12.222%	\$216,342.98		
2.950	8.059%	\$264,856.09	2.950	12.322%	\$218,078.14		
2.975	8.049%	\$266,833.99	2.975	12.422%	\$219,813.30		
3.000	8.039%	\$268,811.90	3.000	12.522%	\$221,548.46		
3.025	8.029%	\$270,789.81	3.025	12.622%	\$223,283.62		
3.050	8.019%	\$272,767.72	3.050	12.722%	\$225,018.78		
3.075	8.009%	\$274,745.63	3.075	12.822%	\$226,753.94		

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MODIFIED CURVE A				MODIFIED CURVE B				
Construction	Percent	Fra	Construction	Percent	Fra	Construction	Percent	Fra
In Millions			In Millions			In Millions		
3,100	0.011%	\$276,332,411	3,100	7.069%	\$24,720,371	3,100	7.069%	\$24,720,371
3,140	0.011%	\$277,232,110	3,125	7.089%	\$24,649,232	3,125	7.089%	\$24,649,232
3,175	0.012%	\$281,426,551	3,100	7.070%	\$24,610,659	3,100	7.070%	\$24,610,659
3,200	0.012%	\$282,050,177	3,200	7.280%	\$26,780,170	3,200	7.280%	\$26,780,170
3,225	0.013%	\$284,053,441	3,225	7.366%	\$26,832,340	3,225	7.366%	\$26,832,340
3,250	0.013%	\$286,756,338	3,250	7.439%	\$26,912,285	3,250	7.439%	\$26,912,285
3,275	0.014%	\$289,059,330	3,275	7.503%	\$26,916,655	3,275	7.503%	\$26,916,655
3,300	0.014%	\$291,059,441	3,300	7.561%	\$26,925,521	3,300	7.561%	\$26,925,521
3,325	0.014%	\$292,456,333	3,325	7.613%	\$26,928,531	3,325	7.613%	\$26,928,531
3,350	0.014%	\$294,450,077	3,350	7.660%	\$26,925,822	3,350	7.660%	\$26,925,822
3,375	0.014%	\$295,546,655	3,375	7.703%	\$26,914,504	3,375	7.703%	\$26,914,504
3,400	0.014%	\$296,730,177	3,400	7.743%	\$26,897,728	3,400	7.743%	\$26,897,728
3,425	0.014%	\$297,904,338	3,425	7.780%	\$26,876,040	3,425	7.780%	\$26,876,040
3,450	0.014%	\$299,168,404	3,450	7.814%	\$26,850,320	3,450	7.814%	\$26,850,320
3,475	0.014%	\$299,704,338	3,475	7.845%	\$26,829,880	3,475	7.845%	\$26,829,880
3,500	0.014%	\$300,702,633	3,500	7.873%	\$26,805,637	3,500	7.873%	\$26,805,637
3,525	0.014%	\$301,458,330	3,525	7.900%	\$26,778,040	3,525	7.900%	\$26,778,040
3,550	0.014%	\$302,458,330	3,550	7.924%	\$26,748,080	3,550	7.924%	\$26,748,080
3,575	0.014%	\$303,633,445	3,575	7.945%	\$26,715,032	3,575	7.945%	\$26,715,032
3,600	0.014%	\$304,933,445	3,600	7.963%	\$26,679,188	3,600	7.963%	\$26,679,188
3,625	0.014%	\$306,416,622	3,625	7.978%	\$26,640,607	3,625	7.978%	\$26,640,607
3,650	0.014%	\$307,970,177	3,650	7.991%	\$26,600,040	3,650	7.991%	\$26,600,040
3,675	0.014%	\$309,694,330	3,675	8.002%	\$26,558,517	3,675	8.002%	\$26,558,517
3,700	0.014%	\$311,588,404	3,700	8.011%	\$26,516,040	3,700	8.011%	\$26,516,040
3,725	0.014%	\$313,652,330	3,725	8.018%	\$26,472,607	3,725	8.018%	\$26,472,607
3,750	0.014%	\$315,896,330	3,750	8.023%	\$26,428,188	3,750	8.023%	\$26,428,188
3,775	0.014%	\$318,320,404	3,775	8.026%	\$26,382,800	3,775	8.026%	\$26,382,800
3,800	0.014%	\$320,924,667	3,800	8.027%	\$26,336,410	3,800	8.027%	\$26,336,410
3,825	0.014%	\$323,708,667	3,825	8.026%	\$26,289,040	3,825	8.026%	\$26,289,040
3,850	0.014%	\$326,672,330	3,850	8.023%	\$26,240,607	3,850	8.023%	\$26,240,607
3,875	0.014%	\$329,816,000	3,875	8.018%	\$26,191,200	3,875	8.018%	\$26,191,200
3,900	0.014%	\$333,139,667	3,900	8.011%	\$26,140,800	3,900	8.011%	\$26,140,800
3,925	0.014%	\$336,643,330	3,925	8.002%	\$26,089,400	3,925	8.002%	\$26,089,400
3,950	0.014%	\$340,327,000	3,950	7.991%	\$26,037,600	3,950	7.991%	\$26,037,600
3,975	0.014%	\$344,190,667	3,975	7.978%	\$25,985,200	3,975	7.978%	\$25,985,200
4,000	0.014%	\$348,234,330	4,000	7.963%	\$25,932,000	4,000	7.963%	\$25,932,000
4,025	0.014%	\$352,458,000	4,025	7.945%	\$25,878,000	4,025	7.945%	\$25,878,000
4,050	0.014%	\$356,861,667	4,050	7.924%	\$25,823,200	4,050	7.924%	\$25,823,200
4,075	0.014%	\$361,445,330	4,075	7.900%	\$25,767,600	4,075	7.900%	\$25,767,600
4,100	0.014%	\$366,209,000	4,100	7.873%	\$25,711,200	4,100	7.873%	\$25,711,200
4,125	0.014%	\$371,152,667	4,125	7.845%	\$25,654,800	4,125	7.845%	\$25,654,800
4,150	0.014%	\$376,276,330	4,150	7.814%	\$25,598,400	4,150	7.814%	\$25,598,400
4,175	0.014%	\$381,580,000	4,175	7.780%	\$25,542,000	4,175	7.780%	\$25,542,000
4,200	0.014%	\$387,063,667	4,200	7.743%	\$25,485,600	4,200	7.743%	\$25,485,600
4,225	0.014%	\$392,727,330	4,225	7.703%	\$25,429,200	4,225	7.703%	\$25,429,200
4,250	0.014%	\$398,571,000	4,250	7.660%	\$25,372,800	4,250	7.660%	\$25,372,800

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
4.276	0.609%	\$363,736.18	4.276	7.410%	\$321,028.72		
4.300	0.602%	\$367,692.48	4.300	7.404%	\$322,891.43		
4.326	0.605%	\$367,447.60	4.326	7.407%	\$324,426.57		
4.350	0.608%	\$369,328.43	4.350	7.401%	\$325,984.38		
4.375	0.611%	\$371,246.80	4.375	7.405%	\$327,460.41		
4.400	0.614%	\$373,200.88	4.400	7.412%	\$328,958.51		
4.425	0.617%	\$374,690.80	4.425	7.419%	\$330,479.64		
4.450	0.620%	\$376,171.08	4.450	7.426%	\$332,022.81		
4.475	0.623%	\$377,642.10	4.475	7.433%	\$333,588.17		
4.500	0.626%	\$379,103.50	4.500	7.440%	\$335,174.88		
4.525	0.629%	\$380,555.00	4.525	7.447%	\$336,782.91		
4.550	0.632%	\$382,007.00	4.550	7.454%	\$338,412.36		
4.575	0.635%	\$383,459.00	4.575	7.461%	\$340,063.31		
4.600	0.638%	\$384,911.00	4.600	7.468%	\$341,735.76		
4.625	0.641%	\$386,363.00	4.625	7.475%	\$343,429.71		
4.650	0.644%	\$387,815.00	4.650	7.482%	\$345,145.16		
4.675	0.647%	\$389,267.00	4.675	7.489%	\$346,882.11		
4.700	0.650%	\$390,719.00	4.700	7.496%	\$348,640.56		
4.725	0.653%	\$392,171.00	4.725	7.503%	\$350,420.51		
4.750	0.656%	\$393,623.00	4.750	7.510%	\$352,221.96		
4.775	0.659%	\$395,075.00	4.775	7.517%	\$354,044.91		
4.800	0.662%	\$396,527.00	4.800	7.524%	\$355,889.36		
4.825	0.665%	\$397,979.00	4.825	7.531%	\$357,755.31		
4.850	0.668%	\$399,431.00	4.850	7.538%	\$359,642.76		
4.875	0.671%	\$400,883.00	4.875	7.545%	\$361,551.71		
4.900	0.674%	\$402,335.00	4.900	7.552%	\$363,482.16		
4.925	0.677%	\$403,787.00	4.925	7.559%	\$365,434.11		
4.950	0.680%	\$405,239.00	4.950	7.566%	\$367,407.56		
4.975	0.683%	\$406,691.00	4.975	7.573%	\$369,402.51		
5.000	0.686%	\$408,143.00	5.000	7.580%	\$371,418.96		
5.025	0.689%	\$409,595.00	5.025	7.587%	\$373,456.91		
5.050	0.692%	\$411,047.00	5.050	7.594%	\$375,516.36		
5.075	0.695%	\$412,499.00	5.075	7.601%	\$377,597.31		
5.100	0.698%	\$413,951.00	5.100	7.608%	\$379,699.76		
5.125	0.701%	\$415,403.00	5.125	7.615%	\$381,823.71		
5.150	0.704%	\$416,855.00	5.150	7.622%	\$383,969.16		
5.175	0.707%	\$418,307.00	5.175	7.629%	\$386,136.11		
5.200	0.710%	\$419,759.00	5.200	7.636%	\$388,324.56		
5.225	0.713%	\$421,211.00	5.225	7.643%	\$390,534.51		
5.250	0.716%	\$422,663.00	5.250	7.650%	\$392,765.96		
5.275	0.719%	\$424,115.00	5.275	7.657%	\$395,018.91		
5.300	0.722%	\$425,567.00	5.300	7.664%	\$397,293.36		
5.325	0.725%	\$427,019.00	5.325	7.671%	\$399,589.31		
5.350	0.728%	\$428,471.00	5.350	7.678%	\$401,906.76		
5.375	0.731%	\$429,923.00	5.375	7.685%	\$404,245.71		
5.400	0.734%	\$431,375.00	5.400	7.692%	\$406,606.16		
5.425	0.737%	\$432,827.00	5.425	7.699%	\$408,988.11		
5.450	0.740%	\$434,279.00	5.450	7.706%	\$411,391.56		
5.475	0.743%	\$435,731.00	5.475	7.713%	\$413,816.51		
5.500	0.746%	\$437,183.00	5.500	7.720%	\$416,263.96		
5.525	0.749%	\$438,635.00	5.525	7.727%	\$418,733.91		
5.550	0.752%	\$440,087.00	5.550	7.734%	\$421,226.36		
5.575	0.755%	\$441,539.00	5.575	7.741%	\$423,741.31		
5.600	0.758%	\$442,991.00	5.600	7.748%	\$426,277.76		
5.625	0.761%	\$444,443.00	5.625	7.755%	\$428,835.71		
5.650	0.764%	\$445,895.00	5.650	7.762%	\$431,415.16		
5.675	0.767%	\$447,347.00	5.675	7.769%	\$434,016.11		
5.700	0.770%	\$448,799.00	5.700	7.776%	\$436,638.56		
5.725	0.773%	\$450,251.00	5.725	7.783%	\$439,282.51		
5.750	0.776%	\$451,703.00	5.750	7.790%	\$441,947.96		
5.775	0.779%	\$453,155.00	5.775	7.797%	\$444,634.91		
5.800	0.782%	\$454,607.00	5.800	7.804%	\$447,343.36		
5.825	0.785%	\$456,059.00	5.825	7.811%	\$450,074.31		
5.850	0.788%	\$457,511.00	5.850	7.818%	\$452,826.76		
5.875	0.791%	\$458,963.00	5.875	7.825%	\$455,600.71		
5.900	0.794%	\$460,415.00	5.900	7.832%	\$458,396.16		
5.925	0.797%	\$461,867.00	5.925	7.839%	\$461,213.11		
5.950	0.800%	\$463,319.00	5.950	7.846%	\$464,051.56		
5.975	0.803%	\$464,771.00	5.975	7.853%	\$466,911.51		
6.000	0.806%	\$466,223.00	6.000	7.860%	\$469,792.96		
6.025	0.809%	\$467,675.00	6.025	7.867%	\$472,695.91		
6.050	0.812%	\$469,127.00	6.050	7.874%	\$475,620.36		
6.075	0.815%	\$470,579.00	6.075	7.881%	\$478,566.31		
6.100	0.818%	\$472,031.00	6.100	7.888%	\$481,533.76		
6.125	0.821%	\$473,483.00	6.125	7.895%	\$484,522.71		
6.150	0.824%	\$474,935.00	6.150	7.902%	\$487,533.16		
6.175	0.827%	\$476,387.00	6.175	7.909%	\$490,565.11		
6.200	0.830%	\$477,839.00	6.200	7.916%	\$493,618.56		
6.225	0.833%	\$479,291.00	6.225	7.923%	\$496,693.51		
6.250	0.836%	\$480,743.00	6.250	7.930%	\$499,789.96		
6.275	0.839%	\$482,195.00	6.275	7.937%	\$502,907.91		
6.300	0.842%	\$483,647.00	6.300	7.944%	\$506,047.36		
6.325	0.845%	\$485,099.00	6.325	7.951%	\$509,208.31		
6.350	0.848%	\$486,551.00	6.350	7.958%	\$512,390.76		
6.375	0.851%	\$488,003.00	6.375	7.965%	\$515,594.71		
6.400	0.854%	\$489,455.00	6.400	7.972%	\$518,820.16		
6.425	0.857%	\$490,907.00	6.425	7.979%	\$522,067.11		
6.450	0.860%	\$492,359.00	6.450	7.986%	\$525,335.56		
6.475	0.863%	\$493,811.00	6.475	7.993%	\$528,625.51		
6.500	0.866%	\$495,263.00	6.500	7.999%	\$531,936.96		
6.525	0.869%	\$496,715.00	6.525	8.006%	\$535,269.91		
6.550	0.872%	\$498,167.00	6.550	8.013%	\$538,624.36		
6.575	0.875%	\$499,619.00	6.575	8.020%	\$542,000.31		
6.600	0.878%	\$501,071.00	6.600	8.027%	\$545,397.76		
6.625	0.881%	\$502,523.00	6.625	8.034%	\$548,816.71		
6.650	0.884%	\$503,975.00	6.650	8.041%	\$552,257.16		
6.675	0.887%	\$505,427.00	6.675	8.048%	\$555,729.11		
6.700	0.890%	\$506,879.00	6.700	8.055%	\$559,232.56		
6.725	0.893%	\$508,331.00	6.725	8.062%	\$562,767.51		
6.750	0.896%	\$509,783.00	6.750	8.069%	\$566,333.96		
6.775	0.899%	\$511,235.00	6.775	8.076%	\$569,931.91		
6.800	0.902%	\$512,687.00	6.800	8.083%	\$573,561.36		
6.825	0.905%	\$514,139.00	6.825	8.090%	\$577,222.31		
6.850	0.908%	\$515,591.00	6.850	8.097%	\$580,914.76		
6.875	0.911%	\$517,043.00	6.875	8.104%	\$584,638.71		
6.900	0.914%	\$518,495.00	6.900	8.111%	\$588,394.16		
6.925	0.917%	\$519,947.00	6.925	8.118%	\$592,181.11		
6.950	0.920%	\$521,399.00	6.950	8.125%	\$596,000.56		
6.975	0.923%	\$522,851.00	6.975	8.132%	\$599,852.51		
7.000	0.926%	\$524,303.00	7.000	8.139%	\$603,736.96		
7.025	0.929%	\$525,755.00	7.025	8.146%	\$607,653.91		
7.050	0.932%	\$527,207.00	7.050	8.153%	\$611,603.36		
7.075	0.935%	\$528,659.00	7.075	8.160%	\$615,585.31		
7.100	0.938%	\$530,111.00	7.100	8.167%	\$619,599.76		
7.125	0.941%	\$531,563.00	7.125	8.174%	\$623,646.71		
7.150	0.944%	\$533,015.00	7.150	8.181%	\$627,726.16		
7.175	0.947%	\$534,467.00	7.175	8.188%	\$631,838.11		
7.200	0.950%	\$535,919.00	7.200	8.195%	\$635,981.56		
7.225	0.953%	\$537,371.00	7.225	8.202%	\$640,156.51		
7.250	0.956%	\$538,823.00	7.250	8.209%	\$644,362.96		
7.275	0.959%	\$540,275.00	7.275	8.216%	\$648,599.91		
7.300	0.962%	\$541,727.00	7.300	8.223%	\$652,877.36		
7.325	0.965%	\$543,179.00	7.325	8.230%	\$657,195.31		
7.350	0.968%	\$544,631.00	7.350	8.237%	\$661,544.76		
7.375	0.971%	\$546,083.00	7.375	8.244%	\$665,925.71		
7.400	0.974%	\$547,535.00	7.400	8.251%	\$670,338.16		
7.425	0.977%	\$548,987.00	7.425	8.258%	\$674,782.11		
7.450	0.980%	\$550,439.00	7.450	8.265%	\$679,257.56		
7.475	0.983%	\$551,891.00	7.475	8.272%	\$683,764.51		
7.500	0.986%	\$553,343.00	7.500	8.279%	\$688,302.96		
7.525	0.989%	\$554,795.00	7.525	8.286%	\$692,872.91		
7.550	0.992%	\$556,247.00	7.550	8.293%	\$697,474.36		
7.575	0.995%	\$557,699.00	7.575	8.300%	\$702,107.31		
7.600	0.998%	\$559,151.00	7.600	8.307%	\$706,771.76		
7.625	1.001%	\$560,603.00	7.625	8.314%	\$711,467.71		
7.650	1.004%	\$562,055.00	7.650	8.321%	\$716,195.16		
7.675	1.007%	\$563,507.00	7.675	8.328%	\$720,954.11		
7.700	1.010%	\$564,959.00	7.700	8.335%	\$725,744.56		
7.725	1.013%	\$566,411.00	7.725	8.342%	\$730,565.51		
7.750	1.016%	\$567,863.00	7.750	8.349%	\$735,417.96		
7.775	1.019%	\$569,315.00	7.775	8.356%	\$740,301.91		
7.800	1.022%	\$570,767.00	7.800	8.363%	\$745,217.36		
7.825	1.025%	\$572,219.00	7.825	8.370%	\$750,164.31		
7.850	1.028%	\$573,671.00	7.850	8.377%	\$755,142.76		
7.875	1.031%	\$575,123.00	7.875	8.384%	\$760,152.71		
7.900	1.034%	\$576,575.00	7.900	8.391%	\$765,194.16		
7.925	1.037%	\$578,027.00	7.925	8.398%	\$770,267.11		
7.950	1.040%	\$579,47					

6/25/2012

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction in Millions	Percent	Fee	Cost of Construction in Millions	Percent	Fee
6.400	8.263%	\$493,133.32	6.400	7.215%	\$385,298.49
6.410	8.263%	\$493,133.32	6.410	7.215%	\$385,298.49
6.420	8.263%	\$493,133.32	6.420	7.215%	\$385,298.49
6.430	8.263%	\$493,133.32	6.430	7.215%	\$385,298.49
6.440	8.263%	\$493,133.32	6.440	7.215%	\$385,298.49
6.450	8.263%	\$493,133.32	6.450	7.215%	\$385,298.49
6.460	8.263%	\$493,133.32	6.460	7.215%	\$385,298.49
6.470	8.263%	\$493,133.32	6.470	7.215%	\$385,298.49
6.480	8.263%	\$493,133.32	6.480	7.215%	\$385,298.49
6.490	8.263%	\$493,133.32	6.490	7.215%	\$385,298.49
6.500	8.263%	\$493,133.32	6.500	7.215%	\$385,298.49
6.510	8.263%	\$493,133.32	6.510	7.215%	\$385,298.49
6.520	8.263%	\$493,133.32	6.520	7.215%	\$385,298.49
6.530	8.263%	\$493,133.32	6.530	7.215%	\$385,298.49
6.540	8.263%	\$493,133.32	6.540	7.215%	\$385,298.49
6.550	8.263%	\$493,133.32	6.550	7.215%	\$385,298.49
6.560	8.263%	\$493,133.32	6.560	7.215%	\$385,298.49
6.570	8.263%	\$493,133.32	6.570	7.215%	\$385,298.49
6.580	8.263%	\$493,133.32	6.580	7.215%	\$385,298.49
6.590	8.263%	\$493,133.32	6.590	7.215%	\$385,298.49
6.600	8.263%	\$493,133.32	6.600	7.215%	\$385,298.49

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MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
6.626	8.077%	\$536,085.72	6.625	7.055%	\$468,871.94
6.890	8.073%	\$536,891.83	6.660	7.062%	\$469,807.72
6.772	8.070%	\$536,676.46	6.875	7.039%	\$471,142.41
6.729	8.068%	\$536,449.21	6.700	7.059%	\$472,077.21
6.769	8.069%	\$536,607.48	6.725	7.061%	\$472,311.64
6.775	8.059%	\$534,580.23	6.740	7.064%	\$472,546.38
6.800	8.059%	\$534,742.50	6.775	7.041%	\$472,811.06
6.805	8.039%	\$530,434.51	6.825	7.038%	\$480,344.88
6.875	8.044%	\$534,001.54	6.850	7.035%	\$481,570.05
6.900	8.044%	\$534,000.67	6.900	7.028%	\$482,400.25
6.925	8.034%	\$530,980.98	6.925	7.025%	\$483,558.83
6.950	8.034%	\$530,980.47	6.950	7.018%	\$484,808.13
6.975	8.024%	\$527,179.35	6.975	7.015%	\$486,081.19
7.000	8.022%	\$527,179.35	7.000	7.009%	\$487,380.27
7.025	8.022%	\$527,179.35	7.025	7.003%	\$488,708.83
7.050	8.018%	\$523,221.39	7.050	7.003%	\$490,068.13
7.075	8.018%	\$523,221.39	7.075	7.003%	\$491,448.19
7.100	8.010%	\$519,174.25	7.100	7.003%	\$492,848.04
7.125	8.010%	\$519,174.25	7.125	6.998%	\$494,267.28
7.150	8.010%	\$519,174.25	7.150	6.998%	\$495,705.43
7.175	8.007%	\$514,472.22	7.175	6.993%	\$497,163.28
7.200	8.004%	\$510,267.35	7.200	6.987%	\$498,641.48
7.225	8.001%	\$506,462.05	7.225	6.981%	\$499,149.72
7.250	7.998%	\$502,256.75	7.250	6.974%	\$500,687.22
7.275	7.995%	\$497,651.41	7.275	6.967%	\$502,284.02
7.300	7.992%	\$493,646.11	7.300	6.960%	\$503,940.82
7.325	7.989%	\$489,240.81	7.325	6.953%	\$505,658.02
7.350	7.986%	\$485,435.51	7.350	6.946%	\$507,435.82
7.375	7.983%	\$481,230.21	7.375	6.939%	\$509,274.02
7.400	7.980%	\$477,624.91	7.400	6.932%	\$511,172.82
7.425	7.977%	\$473,619.61	7.425	6.925%	\$513,131.62
7.450	7.974%	\$469,214.31	7.450	6.918%	\$515,150.42
7.475	7.971%	\$464,409.01	7.475	6.911%	\$517,229.22
7.500	7.968%	\$459,203.71	7.500	6.904%	\$519,368.02
7.525	7.965%	\$453,598.41	7.525	6.897%	\$521,566.82
7.550	7.962%	\$447,593.11	7.550	6.890%	\$523,825.62
7.575	7.959%	\$441,187.81	7.575	6.883%	\$526,144.42
7.600	7.956%	\$434,382.51	7.600	6.876%	\$528,523.22
7.625	7.953%	\$427,177.21	7.625	6.869%	\$530,962.02
7.650	7.950%	\$419,571.91	7.650	6.862%	\$533,460.82
7.675	7.947%	\$411,566.61	7.675	6.855%	\$536,019.62
7.700	7.944%	\$403,161.31	7.700	6.848%	\$538,638.42
7.725	7.941%	\$393,456.01	7.725	6.841%	\$541,317.22
7.750	7.938%	\$383,350.71	7.750	6.834%	\$544,056.02
7.775	7.935%	\$372,845.41	7.775	6.827%	\$546,854.82
					\$549,713.62
					\$552,672.42
					\$555,631.22
					\$558,690.02
					\$561,748.82
					\$564,907.62
					\$568,066.42
					\$571,325.22
					\$574,684.02
					\$578,142.82
					\$581,601.62
					\$585,060.42
					\$588,619.22
					\$592,178.02
					\$595,736.82
					\$600,000.00

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6/25/2002

02/28/202

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
7.000	7.000%	\$510,970.80	7.800	6.920%	\$530,760.08
7.025	7.025%	\$517,971.40	7.825	6.917%	\$541,240.49
7.050	7.050%	\$524,972.00	7.850	6.914%	\$547,796.83
7.075	7.075%	\$531,972.60	7.875	6.911%	\$554,311.19
7.100	7.100%	\$538,973.20	7.900	6.908%	\$560,793.56
7.125	7.125%	\$545,973.80	7.925	6.905%	\$567,248.94
7.150	7.150%	\$552,974.40	7.950	6.902%	\$573,677.34
7.175	7.175%	\$559,975.00	7.975	6.899%	\$580,080.76
7.200	7.200%	\$566,975.60	8.000	6.896%	\$586,461.20
7.225	7.225%	\$573,976.20	8.025	6.893%	\$592,829.66
7.250	7.250%	\$580,976.80	8.050	6.890%	\$599,177.14
7.275	7.275%	\$587,977.40	8.075	6.887%	\$605,504.64
7.300	7.300%	\$594,978.00	8.100	6.884%	\$611,813.16
7.325	7.325%	\$601,978.60	8.125	6.881%	\$618,102.70
7.350	7.350%	\$608,979.20	8.150	6.878%	\$624,373.26
7.375	7.375%	\$615,979.80	8.175	6.875%	\$630,624.84
7.400	7.400%	\$622,980.40	8.200	6.872%	\$636,857.44
7.425	7.425%	\$629,981.00	8.225	6.869%	\$643,072.06
7.450	7.450%	\$636,981.60	8.250	6.866%	\$649,268.70
7.475	7.475%	\$643,982.20	8.275	6.863%	\$655,447.36
7.500	7.500%	\$650,982.80	8.300	6.860%	\$661,608.04
7.525	7.525%	\$657,983.40	8.325	6.857%	\$667,750.74
7.550	7.550%	\$664,984.00	8.350	6.854%	\$673,875.46
7.575	7.575%	\$671,984.60	8.375	6.851%	\$679,982.20
7.600	7.600%	\$678,985.20	8.400	6.848%	\$686,071.96
7.625	7.625%	\$685,985.80	8.425	6.845%	\$692,144.74
7.650	7.650%	\$692,986.40	8.450	6.842%	\$698,199.54
7.675	7.675%	\$699,987.00	8.475	6.839%	\$704,236.36
7.700	7.700%	\$706,987.60	8.500	6.836%	\$710,255.20
7.725	7.725%	\$713,988.20	8.525	6.833%	\$716,256.16
7.750	7.750%	\$720,988.80	8.550	6.830%	\$722,239.24
7.775	7.775%	\$727,989.40	8.575	6.827%	\$728,204.44
7.800	7.800%	\$734,990.00	8.600	6.824%	\$734,151.76
7.825	7.825%	\$741,990.60	8.625	6.821%	\$740,081.20
7.850	7.850%	\$748,991.20	8.650	6.818%	\$746,002.76
7.875	7.875%	\$755,991.80	8.675	6.815%	\$751,916.44
7.900	7.900%	\$762,992.40	8.700	6.812%	\$757,812.24
7.925	7.925%	\$769,993.00	8.725	6.809%	\$763,699.06
7.950	7.950%	\$776,993.60	8.750	6.806%	\$769,576.90
7.975	7.975%	\$783,994.20	8.775	6.803%	\$775,445.76
8.000	8.000%	\$790,994.80	8.800	6.800%	\$781,306.64
8.025	8.025%	\$797,995.40	8.825	6.797%	\$787,159.54
8.050	8.050%	\$804,996.00	8.850	6.794%	\$793,004.46
8.075	8.075%	\$811,996.60	8.875	6.791%	\$798,841.40
8.100	8.100%	\$818,997.20	8.900	6.788%	\$804,670.36
8.125	8.125%	\$825,997.80	8.925	6.785%	\$810,491.34
8.150	8.150%	\$832,998.40	8.950	6.782%	\$816,304.34
8.175	8.175%	\$839,999.00	8.975	6.779%	\$822,109.36
8.200	8.200%	\$846,999.60	9.000	6.776%	\$827,916.40
8.225	8.225%	\$853,999.20	9.025	6.773%	\$833,715.46
8.250	8.250%	\$860,999.80	9.050	6.770%	\$839,506.54
8.275	8.275%	\$867,999.40	9.075	6.767%	\$845,289.64
8.300	8.300%	\$874,999.00	9.100	6.764%	\$851,074.76
8.325	8.325%	\$881,999.60	9.125	6.761%	\$856,851.90
8.350	8.350%	\$888,999.20	9.150	6.758%	\$862,621.06
8.375	8.375%	\$895,999.80	9.175	6.755%	\$868,382.24
8.400	8.400%	\$902,999.40	9.200	6.752%	\$874,135.44
8.425	8.425%	\$909,999.00	9.225	6.749%	\$879,880.66
8.450	8.450%	\$916,999.60	9.250	6.746%	\$885,617.90
8.475	8.475%	\$923,999.20	9.275	6.743%	\$891,347.16
8.500	8.500%	\$930,999.80	9.300	6.740%	\$897,068.44
8.525	8.525%	\$937,999.40	9.325	6.737%	\$902,781.74
8.550	8.550%	\$944,999.00	9.350	6.734%	\$908,487.06
8.575	8.575%	\$951,999.60	9.375	6.731%	\$914,184.40
8.600	8.600%	\$958,999.20	9.400	6.728%	\$919,873.76
8.625	8.625%	\$965,999.80	9.425	6.725%	\$925,555.14
8.650	8.650%	\$972,999.40	9.450	6.722%	\$931,228.54
8.675	8.675%	\$979,999.00	9.475	6.719%	\$936,893.96
8.700	8.700%	\$986,999.60	9.500	6.716%	\$942,551.40
8.725	8.725%	\$993,999.20	9.525	6.713%	\$948,200.86
8.750	8.750%	\$1,000,999.80	9.550	6.710%	\$953,842.34
8.775	8.775%	\$1,007,999.40	9.575	6.707%	\$959,475.84
8.800	8.800%	\$1,014,999.00	9.600	6.704%	\$965,101.36
8.825	8.825%	\$1,021,999.60	9.625	6.701%	\$970,718.90
8.850	8.850%	\$1,028,999.20	9.650	6.698%	\$976,328.46
8.875	8.875%	\$1,035,999.80	9.675	6.695%	\$981,930.04
8.900	8.900%	\$1,042,999.40	9.700	6.692%	\$987,523.64
8.925	8.925%	\$1,049,999.00	9.725	6.689%	\$993,109.26
8.950	8.950%	\$1,056,999.60	9.750	6.686%	\$998,686.90
8.975	8.975%	\$1,063,999.20	9.775	6.683%	\$1,004,257.56
9.000	9.000%	\$1,070,999.80	9.800	6.680%	\$1,009,821.24
9.025	9.025%	\$1,077,999.40	9.825	6.677%	\$1,015,377.94
9.050	9.050%	\$1,084,999.00	9.850	6.674%	\$1,020,926.66
9.075	9.075%	\$1,091,999.60	9.875	6.671%	\$1,026,467.40
9.100	9.100%	\$1,098,999.20	9.900	6.668%	\$1,032,000.16
9.125	9.125%	\$1,105,999.80	9.925	6.665%	\$1,037,524.94
9.150	9.150%	\$1,112,999.40	9.950	6.662%	\$1,043,041.74
9.175	9.175%	\$1,119,999.00	9.975	6.659%	\$1,048,550.56
9.200	9.200%	\$1,126,999.60	10.000	6.656%	\$1,054,051.40
9.225	9.225%	\$1,133,999.20			
9.250	9.250%	\$1,140,999.80			
9.275	9.275%	\$1,147,999.40			
9.300	9.300%	\$1,154,999.00			
9.325	9.325%	\$1,161,999.60			
9.350	9.350%	\$1,168,999.20			
9.375	9.375%	\$1,175,999.80			
9.400	9.400%	\$1,182,999.40			
9.425	9.425%	\$1,189,999.00			
9.450	9.450%	\$1,196,999.60			
9.475	9.475%	\$1,203,999.20			
9.500	9.500%	\$1,210,999.80			
9.525	9.525%	\$1,217,999.40			
9.550	9.550%	\$1,224,999.00			
9.575	9.575%	\$1,231,999.60			
9.600	9.600%	\$1,238,999.20			
9.625	9.625%	\$1,245,999.80			
9.650	9.650%	\$1,252,999.40			
9.675	9.675%	\$1,259,999.00			
9.700	9.700%	\$1,266,999.60			
9.725	9.725%	\$1,273,999.20			
9.750	9.750%	\$1,280,999.80			
9.775	9.775%	\$1,287,999.40			
9.800	9.800%	\$1,294,999.00			
9.825	9.825%	\$1,301,999.60			
9.850	9.850%	\$1,308,999.20			
9.875	9.875%	\$1,315,999.80			
9.900	9.900%	\$1,322,999.40			
9.925	9.925%	\$1,329,999.00			
9.950	9.950%	\$1,336,999.60			
9.975	9.975%	\$1,343,999.20			
10.000	10.000%	\$1,350,999.80			

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
8.076	7.823%	\$702,018.04	8.876	6.803%	\$910,600.61		
8.030	7.820%	\$703,777.91	8.900	6.801%	\$912,690.82		
8.026	7.819%	\$703,839.26	8.926	6.799%	\$914,800.82		
8.022	7.818%	\$703,900.61	8.950	6.797%	\$916,910.82		
8.018	7.817%	\$703,961.96	8.976	6.794%	\$919,020.82		
8.100	7.811%	\$710,010.32	9.100	6.782%	\$938,082.84		
8.126	7.808%	\$712,907.86	9.126	6.780%	\$940,688.08		
8.150	7.807%	\$714,924.88	9.150	6.780%	\$942,980.73		
8.170	7.807%	\$716,941.90	9.170	6.780%	\$945,273.38		
8.190	7.807%	\$718,958.92	9.190	6.780%	\$947,566.03		
8.225	7.806%	\$719,983.86	9.225	6.781%	\$952,676.51		
8.276	7.806%	\$721,349.79	9.276	6.779%	\$957,672.33		
8.300	7.806%	\$723,108.31	9.300	6.777%	\$959,688.24		
8.350	7.806%	\$726,410.59	9.326	6.775%	\$961,704.15		
8.376	7.806%	\$728,124.45	9.376	6.771%	\$963,699.88		
8.400	7.806%	\$731,028.30	9.400	6.769%	\$965,695.61		
8.426	7.806%	\$733,932.22	9.426	6.768%	\$967,691.34		
8.450	7.806%	\$736,836.14	9.450	6.768%	\$969,687.07		
8.500	7.799%	\$737,138.81	9.476	6.768%	\$971,682.80		
8.526	7.799%	\$738,681.80	9.526	6.768%	\$973,678.53		
8.550	7.799%	\$740,224.79	9.550	6.768%	\$975,674.26		
8.576	7.798%	\$742,368.72	9.576	6.768%	\$977,669.99		
8.600	7.798%	\$744,512.65	9.600	6.768%	\$979,665.72		
8.626	7.798%	\$746,656.58	9.626	6.768%	\$981,661.45		
8.650	7.798%	\$748,800.50	9.650	6.768%	\$983,657.18		
8.676	7.798%	\$750,944.43	9.676	6.768%	\$985,652.91		
8.700	7.798%	\$753,088.36	9.700	6.768%	\$987,648.64		
8.726	7.798%	\$755,232.28	9.726	6.768%	\$989,644.37		
8.750	7.798%	\$757,376.21	9.750	6.768%	\$991,640.10		
8.776	7.798%	\$759,520.14	9.776	6.768%	\$993,635.83		
8.800	7.798%	\$761,664.07	9.800	6.768%	\$995,631.56		
8.826	7.798%	\$763,807.99	9.826	6.768%	\$997,627.29		
8.850	7.798%	\$765,951.92	9.850	6.768%	\$999,623.02		
8.876	7.798%	\$768,095.85	9.876	6.768%	\$1,001,618.75		
8.900	7.798%	\$770,239.78	9.900	6.768%	\$1,003,614.48		
8.926	7.798%	\$772,383.71	9.926	6.768%	\$1,005,610.21		
8.950	7.798%	\$774,527.64	9.950	6.768%	\$1,007,605.94		
8.976	7.798%	\$776,671.57	9.976	6.768%	\$1,009,601.67		
9.000	7.798%	\$778,815.50	10.000	6.768%	\$1,011,597.40		
9.026	7.798%	\$780,959.43					
9.050	7.798%	\$783,103.36					
9.076	7.798%	\$785,247.29					
9.100	7.798%	\$787,391.22					
9.126	7.798%	\$789,535.15					
9.150	7.798%	\$791,679.08					
9.170	7.798%	\$793,823.01					
9.190	7.798%	\$795,966.94					
9.225	7.798%	\$798,110.87					
9.276	7.798%	\$800,254.80					
9.300	7.798%	\$802,398.73					
9.326	7.798%	\$804,542.66					
9.350	7.798%	\$806,686.59					
9.376	7.798%	\$808,830.52					
9.400	7.798%	\$810,974.45					
9.426	7.798%	\$813,118.38					
9.450	7.798%	\$815,262.31					
9.476	7.798%	\$817,406.24					
9.500	7.798%	\$819,550.17					
9.526	7.798%	\$821,694.10					
9.550	7.798%	\$823,838.03					
9.576	7.798%	\$825,981.96					
9.600	7.798%	\$828,125.89					
9.626	7.798%	\$830,269.82					
9.650	7.798%	\$832,413.75					
9.676	7.798%	\$834,557.68					
9.700	7.798%	\$836,701.61					
9.726	7.798%	\$838,845.54					
9.750	7.798%	\$840,989.47					
9.776	7.798%	\$843,133.40					
9.800	7.798%	\$845,277.33					
9.826	7.798%	\$847,421.26					
9.850	7.798%	\$849,565.19					
9.876	7.798%	\$851,709.12					
9.900	7.798%	\$853,853.05					
9.926	7.798%	\$855,996.98					
9.950	7.798%	\$858,140.91					
9.976	7.798%	\$860,284.84					
10.000	7.798%	\$862,428.77					

0



Jimmie Schindewolf, P.E.  
General Manager

January 3, 2007

BOARD OF DIRECTORS  
Alan J. Rendt, *President*  
Kelly Fessler, *Vice President*  
Lenox A. Sigler, *Secretary*  
James D. Pulliam, *Treasurer*  
Ron Graham, *Asst. Secretary*


Sanjay Ramabhadran, P.E., Business Practice Manager  
ARCADIS G&M, Inc.  
11490 Westheimer, Suite 600  
Houston, Texas 77077

Re: Amended and Restated Agreement For Professional Engineering Services  
Dear Mr. Ramabhadran:

Transmitted herewith please find one fully executed duplicate original of the Amended and Restated Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and ARCADIS G&M, Inc. This Agreement was approved by the Authority Board of Directors at the November 6, 2006, Board meeting. I am also sending one duplicate original to Tom Rolan (Authority Program Director), one to Robin Bobbitt (Authority General Counsel), and I am retaining two for the Authority contract file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

  
Jimmie Schindewolf, P.E.  
General Manager

JAS/lt

Attachment

Cc: Robin S. Bobbitt, Johnson Radcliff Petrov & Bobbitt PLLC - w/attachment  
Tom Rolan, P.E., Turner Collier & Braden, Inc. - w/attachment  
Shovvi Nandagiri, P.E., NHCRWA  
Cyndi Plunkett, NHCRWA - w/attachment

**AMENDED AND RESTATED AGREEMENT  
FOR PROFESSIONAL ENGINEERING SERVICES  
(ARCADIS G&M, Inc.)**

THE STATE OF TEXAS     §  
                                  §  
COUNTY OF HARRIS     §

THIS AMENDED AND RESTATED AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Amended Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and ARCADIS G&M, Inc. (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects;

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

The Authority and the Engineer have previously entered into an Agreement for Professional Engineering Services; however, due to changed circumstances and the need for clarification and revision, the Authority and the Engineer desire to enter into this Amended Agreement;

NOW, THEREFORE, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION I**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected in the detailed Scope of Services attached as Appendices A and A-1 and that are specifically identified in the Scope of Services that will accompany each Work Authorization issued by the General Manager.
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional

services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).

3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.
4. "Design Phase Agreed Estimate" shall mean the estimate of probable Construction Cost for a Construction Package developed at the completion of the approved Preliminary Engineering Phase, updated at the completion of the Design Phase and agreed to in writing by the General Manager and the Engineer.
5. "Preliminary Phase Agreed Estimate" shall mean the estimate of probable Construction Cost developed and agreed to in writing by the General Manager and the Engineer prior to commencing work on the Preliminary Engineering Phase of the Project. This agreed estimate applies only to the Preliminary Engineering Phase.
6. "Program Manager" shall mean the Authority's manager of its water supply program.
7. "Project" shall mean a design and/or construction project of the Authority authorized by the General Manager through the issuance of a Work Authorization.

## SECTION II

### CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Amended Agreement, the General Manager of the Authority or his designee (hereinafter the "General Manager") may deliver to the Engineer written authorization (hereinafter known as "Work Authorization") in accordance with this Section for the performance of certain professional services with regard to specified Authority projects, which services the Engineer shall then perform in accordance with this Amended Agreement. The General Manager may authorize the Engineer to provide all or any of the engineering and related services that are listed in **Appendices A and A-1**, attached hereto and made a part hereof.

The Authority shall have no obligation to pay for any services hereunder that have been rendered without the prior Work Authorization of the General Manager. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the Authority with progress reports at such times and in such manner as may be requested by the General Manager. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the General Manager as soon as possible.

**SECTION III**  
**TIME OF PERFORMANCE**

Upon receipt of a Work Authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The Authority shall have no obligation to pay for a service performed after the required completion date for same, as set forth in its Work Authorization, except to the extent the date for required completion is extended and continuation of such service is approved by the General Manager.

**SECTION IV**  
**THE ENGINEER'S COMPENSATION**

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blue-line drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof, costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Amended Agreement are described as follows:

Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in **Appendix C**.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.



For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.

The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### SECTION V

#### TIME OF PAYMENT

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Amended Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager", in a form suitable to the Authority, setting forth the services provided under this Amended Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person

performing the services and countersigned by his/her supervisor certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Amended Agreement have been performed. Within forty-five (45) days after the performance of all services provided for in this Amended Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Amended Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

#### SECTION VI

#### TERMINATION

Either party may terminate this Amended Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Amended Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Amended Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Amended Agreement, less such payments on account of the changes as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Amended Agreement shall be delivered to the Authority when and if this Amended Agreement is terminated.

#### SECTION VII

#### NOTICE

Any notice required to be given under the provisions of this Amended Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Amended Agreement, all notices shall be delivered to the following addresses:

To the Engineer:      ARCADIS G&M, Inc.  
   11490 Westheimer, Suite 600  
   Houston, Texas 77077

Attention:                      Sanjay Ramabhadram, P.E., Business Practice Manager

To the Authority:            North Harris County Regional Water Authority  
   3648 FM 1960 West, Suite 110  
   Houston, Texas 77068

Attention:                      General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### SECTION VIII

#### SUCCESSORS AND ASSIGNS

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Amended Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Amended Agreement. Neither the Authority nor the Engineer shall assign, sublet, or transfer its or his/her interest in this Amended Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

#### SECTION IX

#### PUBLIC CONTACT

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Amended Agreement or any requested service shall be referred to the Central Manager.

#### SECTION X

#### COMPLIANCE AND STANDARDS

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the

Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### SECTION XI

#### LICENSE REQUIREMENTS

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Amended Agreement.

#### SECTION XII

#### INSURANCE AND INDEMNIFICATION

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Amended Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Amended Agreement and that of its subconsultants or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subconsultants (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.

SECTION XIII  
OWNERSHIP OF PLANS, COPYRIGHT, AND  
OTHER INTELLECTUAL PROPERTY

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Amended Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Amended Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Amended Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Amended Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Amended Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Amended Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement.

Copies of all complete or partially complete information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement, shall also be delivered

by the Engineer to the General Manager when and if this Amended Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

#### **SECTION XIV**

#### **MODIFICATIONS**

This instrument contains the entire Amended Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

#### **SECTION XV**

#### **AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Amended Agreement and all questions as to the acceptable fulfillment of this Amended Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Amended Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Amended Agreement.

#### **SECTION XVI**

#### **SEVERABILITY**

Any provision or part of this Amended Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Amended Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**SECTION XVII**

**MERGER**

The Parties agree that this Amended Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Amended Agreement.

[The remainder of this page intentionally left blank.]

SECTION XVIII  
EXECUTION

The Authority executes this Amended Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Amended Agreement shall not become effective until executed by all parties hereto.

NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

By: *Alan J. Rend*  
Alan J. Rend, President

Date Signed: 1-22-07

ATTEST:

By: *Lenox K. Sigler*  
Lenox K. Sigler, Secretary

(AUTHORITY SEAL)



APPROVED:

By: *Jim Schindewolf*  
Jim Schindewolf, P.E.  
General Manager



ARCADIS G&M, INC.

By: *William E. Kallas*  
Name: WILLIAM E. KALLAS PE  
Title: SENIOR VICE PRESIDENT  
Date Signed: 12/29/06

ATTEST:

By: *Lana Gyer*  
Name: Lana Gyer  
Title: ASSISTANT CORPORATE SECRETARY

APPENDIX A  
SCOPE OF SERVICES  
(ARCADIS G&M, Inc.)

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see Appendix A-1) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnects, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.

APPENDIX A-1

SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES

(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

1. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternative water line alignments considering all relevant factors and prepare schematic layouts for each alternative route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review.
  - i. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.

2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues



APPENDIX B  
HOURLY BILLING RATES  
(ARCADIS G&M, Inc.)

Word Processing	\$ 56.00
Clerical/Administrative	\$ 65.00
CADD Operator	\$ 57.00
Senior/CADD Operator	\$ 77.00
Scientist/Engineer	\$ 65.00
Staff Scientist/Engineer	\$ 72.00
Project Scientist/Engineer I	\$ 85.00
Project Scientist/Engineer II	\$108.00
Senior Scientist/Engineer	\$115.00
Principal Scientist/Engineer	\$135.00
Project Manager	\$165.00
Director	\$220.00

- Notes:**
- (1) Above hourly rates are 2003 values. Additional classifications and subsequent year rates must be approved in writing by the General Manager.
  - (2) Subconsultant costs and other miscellaneous expenses as approved by the General Manager will be paid at cost plus 10%.
  - (3)

APPENDIX C

CITY OF HOUSTON CURVES FOR MEDIAN COMPENSATION

(ARCADIS G&M, Inc.)



**CITY OF HOUSTON**  
Public Works and Engineering  
Department

LAG R. BROWN  
Mayor  
Jan G. Vaden, Sr., P.E.  
Public Works & Engineering  
Department  
Houston, Texas 77261-1482  
T. 713.847.2007  
F. 713.847.2040  
www.houstontx.gov

July 15, 2002

Christine M. Lindsay, Executive Director  
Houston - CEO  
1220 North Loop West, Suite 240  
Houston, Texas 77019

Dear Ms. Lindsay:

FW&E has adapted the revised Curves of Median Compensation attached herein. These curves and/or the associated  
Boxes will be used for determining the engineering fees as appropriate in this Department and other notices.  
Sincerely,

John G. Vaden, Sr., P.E.  
Mayor  
Department of Public Works and Engineering

CC: Shivan Mandraghi, P.E.  
Director  
Eric Duggan  
Rick Vester - Aviation Department  
Ronald MacSizor - Building Services Department

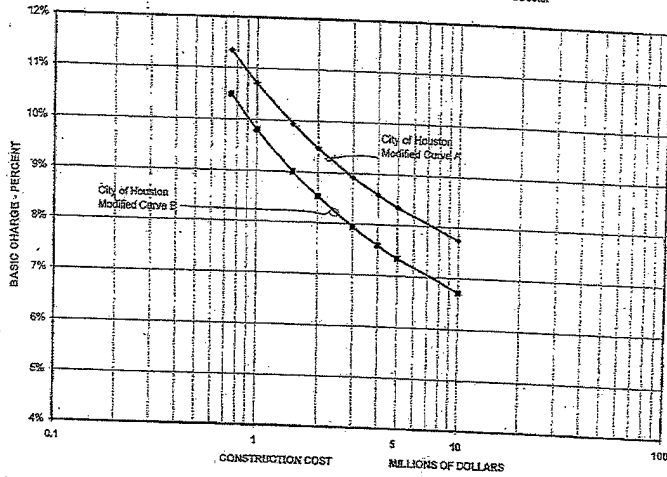
Conrad Kewener - Bruce Tate, Chief of Security; Mike Gilling; Jodi Parker; John Murren; Rick A. Bell; Van Kater; Gerald Murren; Chris Kovacs  
James G. Papp; Gordon Cook; Sherry Sneed; Charles D. Kohn; Larry Cramer; G. Murren; Cheryl; Sylvia H. Davis



DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
Curves of Median Compensation  
Curves A and B

*Shashi*  
Shashi Nandgiri, P.E.  
Deputy Director

*J. C. Vanden Bosch*  
Jon C. Vanden Bosch, P.E.  
Director



MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
0.750	11.917%	\$59,698.91	0.750	10.409%	\$79,048.04		
0.775	11.274%	\$59,434.27	0.775	10.329%	\$79,082.09		
0.800	11.189%	\$59,653.35	0.800	10.254%	\$79,116.14		
0.825	11.158%	\$59,759.97	0.825	10.183%	\$79,150.20		
0.850	11.028%	\$59,001.04	0.850	10.113%	\$79,184.26		
0.875	10.922%	\$58,208.05	0.875	10.043%	\$79,218.32		
0.900	10.853%	\$58,208.05	0.900	9.972%	\$79,252.37		
0.925	10.874%	\$100,685.59	0.925	9.902%	\$79,286.43		
0.950	10.817%	\$102,704.38	0.950	9.832%	\$79,320.49		
0.975	10.783%	\$100,635.78	0.975	9.762%	\$79,354.54		
1.000	10.749%	\$100,635.78	1.000	9.692%	\$79,388.60		
1.025	10.683%	\$100,207.33	1.025	9.622%	\$79,422.65		
1.050	10.610%	\$111,407.58	1.050	9.552%	\$79,456.71		
1.075	10.603%	\$113,452.17	1.075	9.482%	\$79,490.76		
1.100	10.517%	\$110,600.11	1.100	9.412%	\$79,524.82		
1.125	10.443%	\$110,600.11	1.125	9.342%	\$79,558.87		
1.150	10.450%	\$110,488.05	1.150	9.272%	\$79,592.93		
1.175	10.389%	\$122,089.48	1.175	9.202%	\$79,626.98		
1.200	10.349%	\$124,183.25	1.200	9.132%	\$79,661.04		
1.225	10.349%	\$124,183.25	1.225	9.062%	\$79,695.09		
1.250	10.272%	\$126,897.23	1.250	8.992%	\$79,729.15		
1.275	10.243%	\$130,488.25	1.275	8.922%	\$79,763.20		
1.300	10.189%	\$132,690.59	1.300	8.852%	\$79,797.26		
1.325	10.193%	\$134,080.08	1.325	8.782%	\$79,831.31		
1.350	10.189%	\$134,080.08	1.350	8.712%	\$79,865.37		
1.375	10.089%	\$139,046.28	1.375	8.642%	\$79,899.42		
1.400	10.089%	\$142,992.77	1.400	8.572%	\$79,933.48		
1.425	10.028%	\$140,021.18	1.425	8.502%	\$79,967.53		
1.450	9.974%	\$140,021.18	1.450	8.432%	\$79,999.59		
1.475	9.944%	\$144,832.70	1.475	8.362%	\$80,033.65		
1.500	9.944%	\$144,832.70	1.500	8.292%	\$80,067.70		
1.525	9.917%	\$151,238.05	1.525	8.222%	\$80,101.76		
1.550	9.890%	\$153,350.89	1.550	8.152%	\$80,135.81		
1.575	9.890%	\$153,350.89	1.575	8.082%	\$80,169.87		
1.600	9.811%	\$165,422.35	1.600	8.012%	\$80,203.92		
1.625	9.811%	\$165,422.35	1.625	7.942%	\$80,237.98		
1.650	9.765%	\$169,493.10	1.650	7.872%	\$80,272.03		
1.675	9.704%	\$169,493.10	1.675	7.802%	\$80,306.09		
1.700	9.704%	\$169,493.10	1.700	7.732%	\$80,340.14		
1.725	9.733%	\$167,553.76	1.725	7.662%	\$80,374.20		
1.750	9.890%	\$169,573.76	1.750	7.592%	\$80,408.25		
1.775	9.887%	\$171,594.37	1.775	7.522%	\$80,442.31		
1.800	9.887%	\$171,594.37	1.800	7.452%	\$80,476.36		
1.825	9.841%	\$175,591.00	1.825	7.382%	\$80,510.42		
1.850	9.841%	\$175,591.00	1.850	7.312%	\$80,544.47		
1.875	9.692%	\$177,637.50	1.875	7.242%	\$80,578.53		
1.900	9.692%	\$177,637.50	1.900	7.172%	\$80,612.58		
1.925	9.681%	\$181,652.24	1.925	7.102%	\$80,646.64		
1.950	9.681%	\$181,652.24	1.950	7.032%	\$80,680.69		

8/25/2002

02/26/2002

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
1,929	0.541%	\$183,055.17	1,925	0.603%	\$165,218.08		
1,900	0.521%	\$185,056.33	1,900	0.602%	\$166,581.44		
1,975	0.570%	\$187,062.79	1,975	0.612%	\$168,702.07		
2,070	0.620%	\$191,630.70	2,000	0.622%	\$170,440.01		
2,029	0.616%	\$191,630.70	2,080	0.653%	\$172,178.80		
2,090	0.646%	\$193,638.47	2,076	0.644%	\$172,636.12		
2,076	0.642%	\$193,638.47	2,100	0.646%	\$173,386.74		
2,100	0.641%	\$193,638.47	2,125	0.649%	\$174,000.09		
2,150	0.675%	\$201,662.57	2,175	0.632%	\$182,353.00		
2,175	0.698%	\$203,670.80	2,200	0.639%	\$184,281.88		
2,200	0.642%	\$206,615.43	2,225	0.639%	\$186,097.64		
2,225	0.640%	\$207,480.21	2,250	0.637%	\$187,000.91		
2,450	0.620%	\$217,062.79	2,425	0.631%	\$187,000.91		
2,475	0.620%	\$217,062.79	2,450	0.630%	\$187,000.91		
2,380	0.627%	\$218,383.18	2,300	0.638%	\$181,100.99		
2,325	0.629%	\$218,383.18	2,325	0.633%	\$182,807.70		
2,350	0.629%	\$218,383.18	2,350	0.627%	\$184,612.30		
2,400	0.621%	\$221,328.53	2,400	0.628%	\$187,000.91		
2,450	0.620%	\$221,328.53	2,425	0.621%	\$187,000.91		
2,400	0.618%	\$221,328.53	2,450	0.621%	\$189,013.46		
2,450	0.618%	\$221,328.53	2,460	0.620%	\$189,013.46		
2,500	0.618%	\$221,328.53	2,525	0.617%	\$190,000.00		
2,550	0.618%	\$221,328.53	2,550	0.614%	\$190,000.00		
2,575	0.612%	\$224,884.62	2,575	0.614%	\$190,000.00		
2,600	0.608%	\$224,884.62	2,600	0.613%	\$191,000.00		
2,625	0.608%	\$224,884.62	2,625	0.613%	\$191,000.00		
2,650	0.608%	\$224,884.62	2,650	0.613%	\$191,000.00		
2,675	0.607%	\$224,884.62	2,675	0.609%	\$191,000.00		
2,700	0.607%	\$224,884.62	2,700	0.609%	\$191,000.00		
2,725	0.607%	\$224,884.62	2,725	0.609%	\$191,000.00		
2,750	0.607%	\$224,884.62	2,750	0.609%	\$191,000.00		
2,775	0.607%	\$224,884.62	2,775	0.609%	\$191,000.00		
2,800	0.607%	\$224,884.62	2,800	0.609%	\$191,000.00		
2,825	0.607%	\$224,884.62	2,825	0.609%	\$191,000.00		
2,850	0.607%	\$224,884.62	2,850	0.609%	\$191,000.00		
2,875	0.607%	\$224,884.62	2,875	0.609%	\$191,000.00		
2,900	0.607%	\$224,884.62	2,900	0.609%	\$191,000.00		
2,925	0.607%	\$224,884.62	2,925	0.609%	\$191,000.00		
2,950	0.607%	\$224,884.62	2,950	0.609%	\$191,000.00		
2,975	0.607%	\$224,884.62	2,975	0.609%	\$191,000.00		
3,000	0.607%	\$224,884.62	3,000	0.609%	\$191,000.00		
3,025	0.607%	\$224,884.62	3,025	0.609%	\$191,000.00		
3,050	0.607%	\$224,884.62	3,050	0.609%	\$191,000.00		
3,075	0.607%	\$224,884.62	3,075	0.609%	\$191,000.00		

2

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
3.100	0.841%	\$27,623,41	3.100	7.699%	\$24,728,37
3.141	0.841%	\$27,623,41	3.120	7.699%	\$24,643,23
3.160	0.841%	\$27,623,41	3.140	7.699%	\$24,558,09
3.175	0.842%	\$27,623,41	3.170	7.699%	\$24,379,97
3.300	0.842%	\$27,623,41	3.200	7.698%	\$24,198,84
3.320	0.843%	\$27,623,41	3.225	7.698%	\$24,113,70
3.340	0.843%	\$27,623,41	3.250	7.698%	\$24,028,56
3.370	0.844%	\$27,623,41	3.300	7.697%	\$23,779,25
3.380	0.844%	\$27,623,41	3.300	7.697%	\$23,779,25
3.395	0.845%	\$27,623,41	3.330	7.697%	\$23,694,11
3.400	0.845%	\$27,623,41	3.340	7.698%	\$23,608,97
3.425	0.846%	\$27,623,41	3.370	7.698%	\$23,523,82
3.450	0.846%	\$27,623,41	3.400	7.698%	\$23,438,68
3.475	0.847%	\$27,623,41	3.470	7.693%	\$23,177,26
3.500	0.847%	\$27,623,41	3.500	7.693%	\$23,100,89
3.525	0.848%	\$27,623,41	3.525	7.693%	\$23,024,52
3.550	0.848%	\$27,623,41	3.550	7.693%	\$22,948,15
3.575	0.849%	\$27,623,41	3.575	7.693%	\$22,871,78
3.600	0.849%	\$27,623,41	3.600	7.693%	\$22,795,41
3.625	0.850%	\$27,623,41	3.625	7.693%	\$22,719,04
3.650	0.850%	\$27,623,41	3.650	7.693%	\$22,642,67
3.675	0.851%	\$27,623,41	3.675	7.693%	\$22,566,30
3.700	0.851%	\$27,623,41	3.700	7.693%	\$22,489,93
3.725	0.852%	\$27,623,41	3.725	7.693%	\$22,413,56
3.750	0.852%	\$27,623,41	3.750	7.693%	\$22,337,19
3.775	0.853%	\$27,623,41	3.775	7.693%	\$22,260,82
3.800	0.853%	\$27,623,41	3.800	7.693%	\$22,184,45
3.825	0.854%	\$27,623,41	3.825	7.693%	\$22,108,08
3.850	0.854%	\$27,623,41	3.850	7.693%	\$22,031,71
3.875	0.855%	\$27,623,41	3.875	7.693%	\$21,955,34
3.900	0.855%	\$27,623,41	3.900	7.693%	\$21,878,97
3.925	0.856%	\$27,623,41	3.925	7.693%	\$21,802,60
3.950	0.856%	\$27,623,41	3.950	7.693%	\$21,726,23
3.975	0.857%	\$27,623,41	3.975	7.693%	\$21,649,86
4.000	0.857%	\$27,623,41	4.000	7.693%	\$21,573,49
4.025	0.858%	\$27,623,41	4.025	7.693%	\$21,497,12
4.050	0.858%	\$27,623,41	4.050	7.693%	\$21,420,75
4.075	0.859%	\$27,623,41	4.075	7.693%	\$21,344,38
4.100	0.859%	\$27,623,41	4.100	7.693%	\$21,268,01
4.125	0.860%	\$27,623,41	4.125	7.693%	\$21,191,64
4.150	0.860%	\$27,623,41	4.150	7.693%	\$21,115,27
4.175	0.861%	\$27,623,41	4.175	7.693%	\$21,038,90
4.200	0.861%	\$27,623,41	4.200	7.693%	\$20,962,53
4.225	0.862%	\$27,623,41	4.225	7.693%	\$20,886,16
4.250	0.862%	\$27,623,41	4.250	7.693%	\$20,809,79

3

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
4.275	8.500%	\$363,738.18	4.275	7.610%	\$321,608.75		
4.300	8.600%	\$369,992.48	4.300	7.601%	\$322,964.44		
4.325	8.680%	\$376,447.60	4.325	7.491%	\$324,566.37		
4.350	8.700%	\$383,002.48	4.350	7.491%	\$325,964.33		
4.375	8.710%	\$389,718.09	4.375	7.405%	\$327,646.41		
4.400	8.710%	\$396,549.89	4.400	7.472%	\$329,082.94		
4.425	8.471%	\$397,111.09	4.425	7.488%	\$332,282.41		
4.450	8.468%	\$397,711.09	4.450	7.469%	\$333,921.04		
4.475	8.465%	\$398,311.09	4.475	7.484%	\$335,611.77		
4.500	8.462%	\$398,911.09	4.500	7.462%	\$336,800.75		
4.525	8.442%	\$399,472.78	4.525	7.486%	\$340,178.80		
4.550	8.438%	\$399,994.89	4.550	7.430%	\$341,768.41		
4.575	8.430%	\$399,700.75	4.575	7.482%	\$344,332.00		
4.600	8.420%	\$399,606.50	4.600	7.445%	\$346,432.70		
4.625	8.414%	\$399,334.18	4.625	7.412%	\$348,623.77		
4.700	8.400%	\$398,777.07	4.700	7.401%	\$349,197.94		
4.725	8.403%	\$398,701.17	4.725	7.384%	\$349,591.33		
4.750	8.392%	\$398,711.05	4.750	7.380%	\$349,803.74		
4.775	8.388%	\$400,379.89	4.775	7.370%	\$350,017.04		
4.800	8.391%	\$402,540.83	4.800	7.373%	\$350,298.34		
4.825	8.379%	\$405,218.13	4.825	7.382%	\$350,753.89		
4.850	8.369%	\$408,092.42	4.850	7.367%	\$350,330.60		
4.875	8.359%	\$411,728.46	4.875	7.352%	\$349,808.89		
4.900	8.350%	\$415,693.75	4.900	7.341%	\$349,097.77		
4.925	8.340%	\$419,067.29	4.925	7.339%	\$348,693.07		
4.950	8.330%	\$422,987.71	4.950	7.331%	\$347,778.84		
5.000	8.330%	\$427,284.42	5.000	7.309%	\$347,002.84		
5.050	8.320%	\$431,971.29	5.050	7.291%	\$346,002.10		
5.100	8.310%	\$437,098.14	5.100	7.281%	\$345,333.09		
5.125	8.320%	\$442,380.72	5.125	7.281%	\$345,785.89		
5.150	8.315%	\$447,823.33	5.150	7.281%	\$346,302.77		
5.200	8.305%	\$453,527.29	5.200	7.281%	\$346,902.77		
5.225	8.295%	\$459,491.68	5.225	7.281%	\$347,585.89		
5.250	8.291%	\$465,718.50	5.250	7.281%	\$348,352.77		
5.275	8.288%	\$472,207.29	5.275	7.281%	\$349,202.77		
5.300	8.288%	\$478,958.89	5.300	7.281%	\$350,135.89		
5.325	8.277%	\$485,982.80	5.325	7.272%	\$350,693.89		
5.350	8.273%	\$493,278.30	5.350	7.267%	\$350,901.66		
5.400	8.268%	\$498,478.30	5.400	7.262%	\$350,952.82		
5.425	8.264%	\$503,801.88	5.425	7.259%	\$350,728.83		

0/0/2002

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction in Millions	Percent	Fee	Cost of Construction in Millions	Percent	Fee
6.480	8.289%	\$60,123.22	6.480	7.265%	\$38,238.40
6.475	8.285%	\$46,644.22	6.475	7.244%	\$39,286.40
6.500	8.260%	\$465,784.60	6.500	7.244%	\$398,411.88
6.525	8.240%	\$465,984.34	6.525	7.230%	\$398,072.83
6.550	8.237%	\$465,234.17	6.550	7.230%	\$401,535.24
6.675	8.237%	\$461,039.06	6.675	7.229%	\$404,661.08
6.800	8.220%	\$462,857.13	6.800	7.211%	\$400,205.32
6.825	8.224%	\$464,673.80	6.825	7.217%	\$407,785.94
6.900	8.219%	\$468,305.33	6.900	7.213%	\$400,325.35
6.925	8.218%	\$470,120.19	6.925	7.204%	\$412,483.16
6.950	8.208%	\$471,034.47	6.950	7.200%	\$413,993.36
6.975	8.205%	\$473,248.18	6.975	7.189%	\$416,616.56
6.980	8.205%	\$477,374.77	6.980	7.187%	\$416,665.28
6.985	8.185%	\$479,185.71	6.985	7.183%	\$421,728.48
6.990	8.183%	\$480,637.07	6.990	7.176%	\$420,570.13
6.995	8.176%	\$481,427.75	6.995	7.167%	\$428,411.92
6.998	8.171%	\$480,238.86	6.998	7.163%	\$427,091.71
6.999	8.160%	\$481,669.81	6.999	7.161%	\$432,500.18
6.999	8.159%	\$482,497.69	6.999	7.149%	\$434,166.81
6.999	8.142%	\$487,274.04	6.999	7.145%	\$438,703.07
6.999	8.140%	\$490,079.94	6.999	7.139%	\$439,248.90
6.999	8.139%	\$492,830.42	6.999	7.131%	\$440,541.47
6.999	8.137%	\$494,404.02	6.999	7.127%	\$441,930.29
6.999	8.133%	\$495,237.68	6.999	7.123%	\$443,430.70
6.999	8.132%	\$495,888.82	6.999	7.118%	\$444,942.02
6.999	8.123%	\$491,702.63	6.999	7.112%	\$446,000.99
6.999	8.119%	\$491,607.11	6.999	7.108%	\$446,000.99
6.999	8.118%	\$491,601.17	6.999	7.103%	\$446,422.00
6.999	8.108%	\$491,608.17	6.999	7.097%	\$446,422.00
6.999	8.104%	\$492,708.30	6.999	7.094%	\$446,797.34
6.999	8.101%	\$492,907.34	6.999	7.089%	\$447,207.10
6.999	8.097%	\$492,908.97	6.999	7.085%	\$448,048.36
6.999	8.088%	\$492,904.46	6.999	7.079%	\$448,1593.33
6.999	8.084%	\$491,489.00	6.999	7.079%	\$449,481.90
6.999	8.080%	\$491,489.00	6.999	7.089%	\$450,036.08

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MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
6.838	8.073%	\$550,408.72	6.928	7.405%	\$489,071.34		
6.850	8.073%	\$550,408.72	6.975	7.408%	\$492,167.12		
6.878	8.070%	\$550,070.48	6.700	7.055%	\$472,577.21		
6.700	8.003%	\$549,204.28	6.728	7.051%	\$474,114.94		
6.726	8.000%	\$549,204.28	6.700	7.048%	\$473,746.38		
6.750	8.000%	\$549,204.28	6.741	7.044%	\$474,671.09		
6.800	8.004%	\$549,424.31	6.800	7.058%	\$480,344.08		
6.825	8.004%	\$549,424.31	6.825	7.058%	\$480,344.08		
6.850	8.017%	\$549,128.55	6.850	7.058%	\$480,344.08		
6.875	8.014%	\$549,128.55	6.875	7.051%	\$479,807.05		
6.900	8.014%	\$549,128.55	6.900	7.041%	\$478,494.15		
6.925	8.038%	\$550,550.35	6.925	7.028%	\$478,494.15		
6.950	8.034%	\$550,356.47	6.950	7.022%	\$479,208.27		
6.975	8.031%	\$550,175.65	6.975	7.018%	\$479,358.93		
7.000	8.025%	\$549,152.15	7.000	7.012%	\$479,458.18		
7.025	8.022%	\$548,546.09	7.025	7.009%	\$479,116.18		
7.050	8.019%	\$547,940.03	7.050	7.003%	\$478,543.04		
7.075	8.016%	\$547,337.38	7.075	7.002%	\$478,170.06		
7.100	8.013%	\$546,734.72	7.100	6.998%	\$477,801.14		
7.125	8.010%	\$546,132.06	7.125	6.995%	\$477,436.14		
7.150	8.007%	\$545,529.40	7.150	6.993%	\$477,074.65		
7.175	8.004%	\$544,926.74	7.175	6.991%	\$476,716.16		
7.200	8.001%	\$544,324.08	7.200	6.989%	\$476,360.67		
7.225	8.001%	\$543,721.42	7.225	6.987%	\$476,008.18		
7.250	8.001%	\$543,118.76	7.250	6.985%	\$475,658.69		
7.275	8.001%	\$542,516.10	7.275	6.984%	\$475,312.20		
7.300	8.001%	\$541,913.44	7.300	6.983%	\$474,968.71		
7.325	8.001%	\$541,310.78	7.325	6.982%	\$474,628.22		
7.350	8.001%	\$540,708.12	7.350	6.981%	\$474,290.73		
7.375	8.001%	\$540,105.46	7.375	6.980%	\$473,956.24		
7.400	8.000%	\$539,502.80	7.400	6.979%	\$473,624.75		
7.425	8.000%	\$538,900.14	7.425	6.978%	\$473,296.26		
7.450	8.000%	\$538,297.48	7.450	6.977%	\$472,970.77		
7.475	8.000%	\$537,694.82	7.475	6.976%	\$472,648.28		
7.500	8.000%	\$537,092.16	7.500	6.975%	\$472,328.79		
7.525	8.000%	\$536,489.50	7.525	6.974%	\$472,012.30		
7.550	8.000%	\$535,886.84	7.550	6.973%	\$471,700.81		
7.575	8.000%	\$535,284.18	7.575	6.972%	\$471,393.32		
7.600	8.000%	\$534,681.52	7.600	6.971%	\$471,090.83		
7.625	8.000%	\$534,078.86	7.625	6.970%	\$470,793.34		
7.650	8.000%	\$533,476.20	7.650	6.969%	\$470,500.85		
7.675	8.000%	\$532,873.54	7.675	6.968%	\$470,213.36		
7.700	8.000%	\$532,270.88	7.700	6.967%	\$470,000.87		
7.725	8.000%	\$531,668.22	7.725	6.966%	\$469,793.38		
7.750	8.000%	\$531,065.56	7.750	6.965%	\$469,590.89		
7.775	8.000%	\$530,462.90	7.775	6.964%	\$469,393.40		
7.800	8.000%	\$529,860.24	7.800	6.963%	\$469,200.91		
7.825	8.000%	\$529,257.58	7.825	6.962%	\$469,013.42		
7.850	8.000%	\$528,654.92	7.850	6.961%	\$468,830.93		
7.875	8.000%	\$528,052.26	7.875	6.960%	\$468,653.44		
7.900	8.000%	\$527,449.60	7.900	6.959%	\$468,481.95		
7.925	8.000%	\$526,846.94	7.925	6.958%	\$468,316.46		
7.950	8.000%	\$526,244.28	7.950	6.957%	\$468,156.97		
7.975	8.000%	\$525,641.62	7.975	6.956%	\$468,002.48		
8.000	8.000%	\$525,038.96	8.000	6.955%	\$467,853.99		

02/27/2002

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
7.800	7.838%	\$916,978.50	7.000	6.320%	\$630,788.08
7.825	7.834%	\$912,811.58	7.025	6.317%	\$641,281.48
7.850	7.830%	\$908,644.66	7.050	6.314%	\$651,774.88
7.875	7.826%	\$904,477.74	7.075	6.312%	\$662,268.28
7.900	7.822%	\$900,310.82	7.100	6.310%	\$672,761.68
7.925	7.818%	\$896,143.90	7.125	6.308%	\$683,255.08
7.950	7.814%	\$891,976.98	7.150	6.306%	\$693,748.48
7.975	7.810%	\$887,810.06	7.175	6.304%	\$704,241.88
8.000	7.806%	\$883,643.14	7.200	6.302%	\$714,735.28
8.025	7.802%	\$879,476.22	7.225	6.300%	\$725,228.68
8.050	7.798%	\$875,309.30	7.250	6.298%	\$735,722.08
8.075	7.794%	\$871,142.38	7.275	6.296%	\$746,215.48
8.100	7.790%	\$866,975.46	7.300	6.294%	\$756,708.88
8.125	7.786%	\$862,808.54	7.325	6.292%	\$767,202.28
8.150	7.782%	\$858,641.62	7.350	6.290%	\$777,695.68
8.175	7.778%	\$854,474.70	7.375	6.288%	\$788,189.08
8.200	7.774%	\$850,307.78	7.400	6.286%	\$798,682.48
8.225	7.770%	\$846,140.86	7.425	6.284%	\$809,175.88
8.250	7.766%	\$841,973.94	7.450	6.282%	\$819,669.28
8.275	7.762%	\$837,807.02	7.475	6.280%	\$830,162.68
8.300	7.758%	\$833,640.10	7.500	6.278%	\$840,656.08
8.325	7.754%	\$829,473.18	7.525	6.276%	\$851,149.48
8.350	7.750%	\$825,306.26	7.550	6.274%	\$861,642.88
8.375	7.746%	\$821,139.34	7.575	6.272%	\$872,136.28
8.400	7.742%	\$816,972.42	7.600	6.270%	\$882,629.68
8.425	7.738%	\$812,805.50	7.625	6.268%	\$893,123.08
8.450	7.734%	\$808,638.58	7.650	6.266%	\$903,616.48
8.475	7.730%	\$804,471.66	7.675	6.264%	\$914,109.88
8.500	7.726%	\$800,304.74	7.700	6.262%	\$924,603.28
8.525	7.722%	\$796,137.82	7.725	6.260%	\$935,096.68
8.550	7.718%	\$791,970.90	7.750	6.258%	\$945,590.08
8.575	7.714%	\$787,803.98	7.775	6.256%	\$956,083.48
8.600	7.710%	\$783,637.06	7.800	6.254%	\$966,576.88
8.625	7.706%	\$779,470.14	7.825	6.252%	\$977,070.28
8.650	7.702%	\$775,303.22	7.850	6.250%	\$987,563.68
8.675	7.698%	\$771,136.30	7.875	6.248%	\$998,057.08
8.700	7.694%	\$766,969.38	7.900	6.246%	\$1,008,550.48
8.725	7.690%	\$762,802.46	7.925	6.244%	\$1,019,043.88
8.750	7.686%	\$758,635.54	7.950	6.242%	\$1,029,537.28
8.775	7.682%	\$754,468.62	7.975	6.240%	\$1,040,030.68
8.800	7.678%	\$750,301.70	8.000	6.238%	\$1,050,524.08
8.825	7.674%	\$746,134.78	8.025	6.236%	\$1,061,017.48
8.850	7.670%	\$741,967.86	8.050	6.234%	\$1,071,510.88
8.875	7.666%	\$737,800.94	8.075	6.232%	\$1,082,004.28
8.900	7.662%	\$733,634.02	8.100	6.230%	\$1,092,497.68
8.925	7.658%	\$729,467.10	8.125	6.228%	\$1,102,991.08
8.950	7.654%	\$725,300.18	8.150	6.226%	\$1,113,484.48
8.975	7.650%	\$721,133.26	8.175	6.224%	\$1,123,977.88
9.000	7.646%	\$716,966.34	8.200	6.222%	\$1,134,471.28
9.025	7.642%	\$712,799.42	8.225	6.220%	\$1,144,964.68
9.050	7.638%	\$708,632.50	8.250	6.218%	\$1,155,458.08
9.075	7.634%	\$704,465.58	8.275	6.216%	\$1,165,951.48
9.100	7.630%	\$700,298.66	8.300	6.214%	\$1,176,444.88
9.125	7.626%	\$696,131.74	8.325	6.212%	\$1,186,938.28
9.150	7.622%	\$691,964.82	8.350	6.210%	\$1,197,431.68
9.175	7.618%	\$687,797.90	8.375	6.208%	\$1,207,925.08
9.200	7.614%	\$683,630.98	8.400	6.206%	\$1,218,418.48
9.225	7.610%	\$679,464.06	8.425	6.204%	\$1,228,911.88
9.250	7.606%	\$675,297.14	8.450	6.202%	\$1,239,405.28
9.275	7.602%	\$671,130.22	8.475	6.200%	\$1,249,898.68
9.300	7.598%	\$666,963.30	8.500	6.198%	\$1,260,392.08
9.325	7.594%	\$662,796.38	8.525	6.196%	\$1,270,885.48
9.350	7.590%	\$658,629.46	8.550	6.194%	\$1,281,378.88
9.375	7.586%	\$654,462.54	8.575	6.192%	\$1,291,872.28
9.400	7.582%	\$650,295.62	8.600	6.190%	\$1,302,365.68
9.425	7.578%	\$646,128.70	8.625	6.188%	\$1,312,859.08
9.450	7.574%	\$641,961.78	8.650	6.186%	\$1,323,352.48
9.475	7.570%	\$637,794.86	8.675	6.184%	\$1,333,845.88
9.500	7.566%	\$633,627.94	8.700	6.182%	\$1,344,339.28
9.525	7.562%	\$629,461.02	8.725	6.180%	\$1,354,832.68
9.550	7.558%	\$625,294.10	8.750	6.178%	\$1,365,326.08
9.575	7.554%	\$621,127.18	8.775	6.176%	\$1,375,819.48
9.600	7.550%	\$616,960.26	8.800	6.174%	\$1,386,312.88
9.625	7.546%	\$612,793.34	8.825	6.172%	\$1,396,806.28
9.650	7.542%	\$608,626.42	8.850	6.170%	\$1,407,299.68
9.675	7.538%	\$604,459.50	8.875	6.168%	\$1,417,793.08
9.700	7.534%	\$600,292.58	8.900	6.166%	\$1,428,286.48
9.725	7.530%	\$596,125.66	8.925	6.164%	\$1,438,779.88
9.750	7.526%	\$591,958.74	8.950	6.162%	\$1,449,273.28
9.775	7.522%	\$587,791.82	8.975	6.160%	\$1,459,766.68
9.800	7.518%	\$583,624.90	9.000	6.158%	\$1,470,260.08
9.825	7.514%	\$579,457.98	9.025	6.156%	\$1,480,753.48
9.850	7.510%	\$575,291.06	9.050	6.154%	\$1,491,246.88
9.875	7.506%	\$571,124.14	9.075	6.152%	\$1,501,740.28
9.900	7.502%	\$566,957.22	9.100	6.150%	\$1,512,233.68
9.925	7.498%	\$562,790.30	9.125	6.148%	\$1,522,727.08
9.950	7.494%	\$558,623.38	9.150	6.146%	\$1,533,220.48
9.975	7.490%	\$554,456.46	9.175	6.144%	\$1,543,713.88
10.000	7.486%	\$550,289.54	9.200	6.142%	\$1,554,207.28

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MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fed	Cost of Construction In Millions	Percent	Fed
8,976	7.822%	\$709,319.04	8,976	8.803%	\$810,850.81
8,000	7.820%	\$708,774.81	8,000	8.799%	\$810,850.81
8,025	7.819%	\$707,924.73	8,025	8.797%	\$810,850.81
9,075	7.813%	\$709,092.69	9,075	8.794%	\$810,850.81
9,100	7.811%	\$710,010.32	9,100	8.792%	\$810,850.81
9,125	7.809%	\$712,587.05	9,125	8.790%	\$810,850.81
9,150	7.807%	\$718,061.41	9,150	8.788%	\$810,850.81
9,200	7.803%	\$717,837.84	9,200	8.786%	\$810,850.81
9,225	7.801%	\$719,658.88	9,225	8.791%	\$810,850.81
9,250	7.799%	\$721,340.79	9,250	8.794%	\$810,850.81
9,275	7.797%	\$723,022.70	9,275	8.796%	\$810,850.81
9,300	7.794%	\$724,800.55	9,300	8.776%	\$810,850.81
9,325	7.792%	\$728,814.47	9,325	8.773%	\$810,850.81
9,350	7.790%	\$728,970.11	9,350	8.771%	\$810,850.81
9,375	7.788%	\$730,125.86	9,375	8.769%	\$810,850.81
9,400	7.786%	\$733,632.28	9,400	8.764%	\$810,850.81
9,425	7.784%	\$736,365.79	9,425	8.762%	\$810,850.81
9,450	7.782%	\$737,438.51	9,450	8.760%	\$810,850.81
9,475	7.780%	\$740,338.50	9,475	8.758%	\$810,850.81
9,500	7.778%	\$742,388.41	9,500	8.756%	\$810,850.81
9,525	7.776%	\$744,148.78	9,525	8.754%	\$810,850.81
9,550	7.774%	\$746,448.88	9,550	8.752%	\$810,850.81
9,575	7.772%	\$748,403.18	9,575	8.750%	\$810,850.81
9,600	7.770%	\$750,808.00	9,600	8.748%	\$810,850.81
9,625	7.768%	\$752,594.68	9,625	8.746%	\$810,850.81
9,650	7.766%	\$755,608.02	9,650	8.744%	\$810,850.81
9,675	7.764%	\$758,164.89	9,675	8.742%	\$810,850.81
9,700	7.762%	\$761,053.03	9,700	8.740%	\$810,850.81
9,725	7.760%	\$765,094.39	9,725	8.738%	\$810,850.81
9,750	7.758%	\$769,164.89	9,750	8.736%	\$810,850.81
9,775	7.756%	\$773,268.02	9,775	8.734%	\$810,850.81
9,800	7.754%	\$778,408.71	9,800	8.732%	\$810,850.81
9,825	7.752%	\$783,587.88	9,825	8.730%	\$810,850.81
9,850	7.750%	\$788,814.29	9,850	8.728%	\$810,850.81
9,875	7.748%	\$794,088.71	9,875	8.726%	\$810,850.81
9,900	7.746%	\$799,412.88	9,900	8.724%	\$810,850.81
9,925	7.744%	\$804,787.74	9,925	8.722%	\$810,850.81
9,950	7.742%	\$810,213.24	9,950	8.720%	\$810,850.81
9,975	7.740%	\$815,688.48	9,975	8.718%	\$810,850.81
10,000	7.738%	\$821,213.70	10,000	8.716%	\$810,850.81



Jimmie Schindewolf, P.E.  
General Manager

December 5, 2006

BOARD OF DIRECTORS  
Alan J. Rendt, President  
Kelly Fessler, Vice President  
Lenox A. Sigler, Secretary  
James D. Pulliam, Treasurer  
Ron Graham, Asst. Secretary

Larry M. Barfield, P.E., President  
Binkley & Barfield, Inc.  
1710 Seannist Drive  
Houston, Texas 77008-3189


Re: Amended and Restated Agreement For Professional Engineering Services

Dear Mr. Barfield:

Transmitted herewith please find one fully executed duplicate original of the Amended and Restated Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and Binkley & Barfield, Inc. This Agreement was approved by the Authority Board of Directors at the November 6, 2006, Board meeting. I am also sending one duplicate original to Tom Rolen (Authority Program Director), one to Robin Bobbitt (Authority General Counsel), and I am retaining two for the Authority contract file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

  
Jimmie Schindewolf, P.E.  
General Manager

JAS/lms

Attachment

Cc: Robin S. Bobbitt, Johnson Radcliff Petrov & Bobbitt PLLC - w/attachment  
Tom Rolen, P.E., Turner Collier & Braden, Inc. - w/attachment  
Shawri Nandagiri, P.E., NHCRWA  
Cynidi Plunkert, NHCRWA - w/attachment

**AMENDED AND RESTATED AGREEMENT  
FOR PROFESSIONAL ENGINEERING SERVICES**

**(Binkley & Barfield, Inc.)**

THE STATE OF TEXAS     §  
  §  
COUNTY OF HARRIS     §

THIS AMENDED AND RESTATED AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Amended Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and Binkley & Barfield, Inc. (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects;

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

The Authority and the Engineer have previously entered into an Agreement for Professional Engineering Services; however, due to changed circumstances and the need for clarification and revision, the Authority and the Engineer desire to enter into this Amended Agreement;

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION I**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected in the detailed Scope of Services attached as **Appendices A and A-1** and that are specifically identified in the Scope of Services that will accompany each Work Authorization issued by the General Manager.
  
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional

services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).

3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.
4. "Design Phase Agreed Estimate" shall mean the estimate of probable Construction Cost for a Construction Package developed at the completion of the approved Preliminary Engineering Phase, updated at the completion of the Design Phase and agreed to in writing by the General Manager and the Engineer.
5. "Preliminary Phase Agreed Estimate" shall mean the estimate of probable Construction Cost developed and agreed to in writing by the General Manager and the Engineer prior to commencing work on the Preliminary Engineering Phase of the Project. This agreed estimate applies only to the Preliminary Engineering Phase.
6. "Program Manager" shall mean the Authority's manager of its water supply program.
7. "Project" shall mean a design and/or construction project of the Authority authorized by the General Manager through the issuance of a Work Authorization.

## SECTION II

### CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Amended Agreement, the General Manager of the Authority or his designee (hereinafter the "General Manager") may deliver to the Engineer written authorization (hereinafter known as "Work Authorization") in accordance with this Section for the performance of certain professional services with regard to specified Authority projects, which services the Engineer shall then perform in accordance with this Amended Agreement. The General Manager may authorize the Engineer to provide all or any of the engineering and related services that are listed in **Appendices A and A-1**, attached hereto and made a part hereof.

The Authority shall have no obligation to pay for any services hereunder that have been rendered without the prior Work Authorization of the General Manager. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the Authority with progress reports at such times and in such manner as may be requested by the General Manager. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the General Manager as soon as possible.

**SECTION III**

**TIME OF PERFORMANCE**

Upon receipt of a Work Authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The Authority shall have no obligation to pay for a service performed after the required completion date for same, as set forth in its Work Authorization, except to the extent the date for required completion is extended and continuation of such service is approved by the General Manager.

**SECTION IV**

**THE ENGINEER'S COMPENSATION**

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blueprint drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof; costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Amended Agreement are described as follows:

Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in **Appendix C**.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.

For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
  2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
  3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.
- The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### SECTION V

##### TIME OF PAYMENT

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Amended Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager" in a form suitable to the Authority, setting forth the services provided under this Amended Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person

performing the services and countersigned by his/her supervisor certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Amended Agreement have been performed. Within forty-five (45) days after the performance of all services provided for in this Amended Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Amended Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

#### **SECTION VI TERMINATION**

Either party may terminate this Amended Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Amended Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Amended Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Amended Agreement, less such payments on account of the charges as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Amended Agreement shall be delivered to the Authority when and if this Amended Agreement is terminated.

#### **SECTION VII NOTICE**

Any notice required to be given under the provisions of this Amended Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Amended Agreement, all notices shall be delivered to the following addresses:



To the Engineer: Binkley & Barfield, Inc.  
1710 Seaman Drive  
Houston, Texas 77008-3189

Attention: Larry M. Barfield, P.E., President

To the Authority: North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Attention: General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### **SECTION VIII**

#### **SUCCESSORS AND ASSIGNS**

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Amended Agreement and to the successors, executors administrators, and assigns of such other party, in respect to all covenants of this Amended Agreement. Neither the Authority nor the Engineer shall assign, sublet, or transfer its or his/her interest in this Amended Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

#### **SECTION IX**

#### **PUBLIC CONTACT**

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Amended Agreement or any requested service shall be referred to the General Manager.

#### **SECTION X**

#### **COMPLIANCE AND STANDARDS**

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the

Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### **SECTION XI**

#### **LICENSE REQUIREMENTS**

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Amended Agreement.

#### **SECTION XII**

#### **INSURANCE AND INDEMNIFICATION**

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Amended Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Amended Agreement and that of its subconsultants or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subconsultants (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.

SECTION XIII  
OWNERSHIP OF PLANS, COPYRIGHT, AND  
OTHER INTELLECTUAL PROPERTY

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproductions, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Amended Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Amended Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Amended Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Amended Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Amended Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Amended Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproductions, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement.

Copies of all complete or partially complete information, programs, Mylar reproductions, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement, shall also be delivered

by the Engineer to the General Manager when and if this Amended Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

#### **SECTION XIV**

#### **MODIFICATIONS**

This instrument contains the entire Amended Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

#### **SECTION XV**

#### **AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Amended Agreement and all questions as to the acceptable fulfillment of this Amended Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Amended Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Amended Agreement.

#### **SECTION XVI**

#### **SEVERABILITY**

Any provision or part of this Amended Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Amended Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**SECTION XVII**

**MERGER**


The Parties agree that this Amended Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Amended Agreement.

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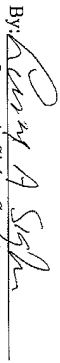
SECTION XVIII  
EXECUTION

The Authority executes this Amended Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Amended Agreement shall not become effective until executed by all parties hereto.

NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

By:   
Alan J. Rendt, President  
Date Signed: 12-9-06

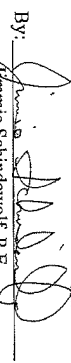
ATTEST:

By:   
Lenox A. Sigler, Secretary


(AUTHORITY SEAL)



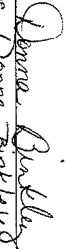
APPROVED:

By:   
Jimmie Schindewolf, P. E.  
General Manager

BINKLEY & BARFIELD, INC.

By:   
Name: Peter M. Barfield  
Title: President  
Date Signed: 11/29/06

ATTEST:

By:   
Name: Donna Binkley  
Title: Corporate Secretary

**APPENDIX A**  
**SCOPE OF SERVICES**  
**(Binkley & Barfield, Inc.)**

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see **Appendix A-1**) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnects, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.



## APPENDIX A-1

### SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES

(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

1. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternative water line alignments considering all relevant factors and prepare schematic layouts for each alternative route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review.
  - i. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.

2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues associated with such submittals within fourteen (14) calendar days of receipt of submittals from the Program Manager.

- e. Prepare revisions to the contract documents (*i.e.*, change orders) at no charge to the Authority when such change orders are required to make clarifications, correct discrepancies, errors or omissions to the contract documents.
- f. When requested by the Program Manager, evaluate contractor changes and cost proposals and recommend action to the Program Manager.
- g. Make monthly site visits to the Project site to observe the progress and quality of the executed work. Such site visits are to be coordinated with the Program Manager and a site visit report shall be submitted to the Program Manager after each such site visit, indicating observations related to the executed work.
- h. Attend final Project walkthrough.
- i. Prepare "record drawings" indicating changes to the contract drawings and showing significant changes made to the work during the construction of the Project. Such changes will be based upon marked-up "record drawings" furnished to the Engineer by the Program Manager and the construction contractor.

APPENDIX B  
HOURLY BILLING RATES  
(Binkley & Barfield, Inc.)

<u>Classification</u>	<u>Hourly Rates</u>
Principal	\$160.00
Project Manager	\$150.00
Project Engineer	\$118.00
BIT	\$101.00
Graduate Engineer	\$ 84.00
Sr. Designer	\$ 84.00
Designer	\$ 80.00
Sr. CAD Operator	\$ 75.00
CADD Operator	\$ 70.00
Sr. Clerical/Administration	\$ 55.00
Clerical/Administration	\$ 50.00

SURVEYING

FIELD PARTIES:

2 - Man Field Party	\$105.00 per hour
3 - Man Field Party	115.00 per hour
4 - Man Field Party	130.00 per hour
1 - Man Field Party with GPS	115.00 per hour
2 - Man Field Party with GPS	150.00 per hour
3 - Man Field Party with GPS	170.00 per hour
4 - Man Field Party with GPS	190.00 per hour

OFFICE PERSONNEL:

Surveying Principal	\$ 95.00 per hour
Survey Project Manager (RPLS)	90.00 per hour
Project Surveyor (RPLS)	80.00 per hour
Senior Survey Technician (min S.L.T.)	75.00 per hour
Survey Technician	70.00 per hour
CADD Technician	65.00 per hour
Clerical	35.00 per hour

The above rates for field parties include all normal labor, material, vehicle, usual surveying equipment, travel and incidental costs and are charged portal-to-portal from our office.

- A. G.P.S. rates include: one "base station" with "rover(s)"
- B. Upon authorization from the General Manager, all time over eight (8) hours per day, Saturdays, Sundays, and Holidays shall be billed at 1.50 times the above rates.
- C. All direct non-labor expenses, as may be required for the proper execution of the work, shall be billed at cost.

Notes:

- (1) Above hourly rates are 2003 values. Additional classifications and subsequent year rates must be approved in writing by the General Manager.
- (2) Subconsultant costs and other miscellaneous expenses as approved by the General Manager will be paid at cost plus 10%.

APPENDIX C  
CITY OF HOUSTON CURVES FOR MEDIAN COMPENSATION  
(Binkley & Barfield, Inc.)



**CITY OF HOUSTON**  
Public Works and Engineering  
Department

Leo P. Brown  
Mayor  
Jan C. Viretta Beach, P.E.  
Public Works & Engineering  
Department  
Houston, Texas 77251-1482  
T. 713.837.2037  
F. 713.837.2550  
l.p.brown@houstontx.gov

July 14, 2002

Christina M. Lindsay, Executive Director  
Houston - CEC  
2000  
Houston, Texas 77018

Dear Ms. Lindsay:  
PW&E has adopted the revised Curves of Median Compensation attached hereto. These curves grid or the associated tables will be used for determining the engineering fees as appropriate in this Department until further notice.  
Sincerely,

John C. Viretta Beach, P.E.  
Executive Director  
Department of Public Works and Engineering

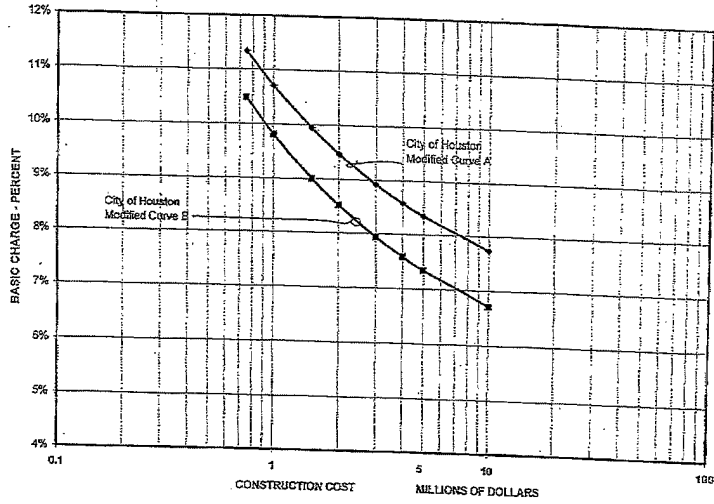
CC: Shawn Ventreghil, P.E.  
Jan Taylor  
Rick Vasef - Aviation Department  
Monique MacGibira - Building Services Department

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DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
Curves of Median Compensation  
Curves A and B

*Shouri Nandigati*  
Shouri Nandigati, P.E.  
Deputy Director

*Joa C. Vander Bosch*  
Joa C. Vander Bosch, P.E.  
Director



6/25/2024

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
0.760	1.347%	\$95,098.31	0.750	10.469%	\$78,888.44
0.775	1.270%	\$97,338.27	0.775	10.407%	\$80,655.49
0.800	1.149%	\$99,580.35	0.800	10.329%	\$82,532.05
0.825	1.030%	\$101,822.43	0.825	10.243%	\$84,506.09
0.850	1.1189%	\$104,064.51	0.850	10.150%	\$86,580.13
0.875	10.8395%	\$86,204.43	0.875	10.118%	\$88,654.17
0.900	10.533%	\$98,398.99	0.900	10.050%	\$90,728.21
0.925	10.874%	\$100,593.53	0.925	9.987%	\$92,802.25
0.950	10.877%	\$102,788.08	0.950	9.927%	\$94,876.29
0.975	10.785%	\$104,982.63	0.975	9.869%	\$96,950.33
1.000	10.693%	\$107,177.18	1.000	9.813%	\$99,024.37
1.025	10.600%	\$109,371.73	1.025	9.757%	\$101,098.41
1.050	10.610%	\$111,566.28	1.050	9.707%	\$103,172.45
1.075	10.629%	\$113,760.83	1.075	9.657%	\$105,246.49
1.100	10.517%	\$115,955.38	1.100	9.609%	\$107,320.53
1.125	10.473%	\$118,149.93	1.125	9.562%	\$109,394.57
1.150	10.380%	\$120,344.48	1.150	9.517%	\$111,468.61
1.175	10.349%	\$122,539.03	1.175	9.474%	\$113,542.65
1.200	10.310%	\$124,733.58	1.200	9.431%	\$115,616.69
1.225	10.310%	\$126,928.13	1.225	9.390%	\$117,690.73
1.250	10.272%	\$129,122.68	1.250	9.350%	\$119,764.77
1.275	10.235%	\$131,317.23	1.275	9.311%	\$121,838.81
1.300	10.198%	\$133,511.78	1.300	9.273%	\$123,912.85
1.325	10.161%	\$135,706.33	1.325	9.236%	\$125,986.89
1.350	10.131%	\$137,900.88	1.350	9.200%	\$128,060.93
1.375	10.098%	\$140,095.43	1.375	9.167%	\$130,134.97
1.400	10.069%	\$142,289.98	1.400	9.135%	\$132,209.01
1.425	10.039%	\$144,484.53	1.425	9.104%	\$134,283.05
1.450	10.009%	\$146,679.08	1.450	9.074%	\$136,357.09
1.475	9.974%	\$148,873.63	1.475	9.045%	\$138,431.13
1.500	9.944%	\$151,068.18	1.500	9.017%	\$140,505.17
1.525	9.917%	\$153,262.73	1.525	8.990%	\$142,579.21
1.550	9.890%	\$155,457.28	1.550	8.964%	\$144,653.25
1.575	9.860%	\$157,651.83	1.575	8.939%	\$146,727.29
1.600	9.834%	\$159,846.38	1.600	8.915%	\$148,801.33
1.625	9.811%	\$162,040.93	1.625	8.892%	\$150,875.37
1.650	9.789%	\$164,235.48	1.650	8.870%	\$152,949.41
1.675	9.769%	\$166,429.03	1.675	8.849%	\$155,023.45
1.700	9.751%	\$168,623.58	1.700	8.829%	\$157,097.49
1.725	9.733%	\$170,818.13	1.725	8.810%	\$159,171.53
1.750	9.716%	\$173,012.68	1.750	8.792%	\$161,245.57
1.775	9.700%	\$175,207.23	1.775	8.775%	\$163,319.61
1.800	9.685%	\$177,401.78	1.800	8.759%	\$165,393.65
1.825	9.670%	\$179,596.33	1.825	8.744%	\$167,467.69
1.850	9.656%	\$181,790.88	1.850	8.729%	\$169,541.73
1.875	9.642%	\$183,985.43	1.875	8.715%	\$171,615.77
1.900	9.629%	\$186,179.98	1.900	8.701%	\$173,689.81
1.925	9.616%	\$188,374.53	1.925	8.688%	\$175,763.85
1.950	9.603%	\$190,569.08	1.950	8.675%	\$177,837.89
1.975	9.591%	\$192,763.63	1.975	8.663%	\$179,911.93
2.000	9.579%	\$194,958.18	2.000	8.651%	\$181,985.97

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MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
1.925	9.641%	\$189,695.17	1.925	8.953%	\$188,210.08
1.980	9.427%	\$189,893.43	1.980	8.962%	\$188,991.44
1.975	9.450%	\$187,662.70	1.975	8.962%	\$188,702.07
2.000	9.483%	\$189,647.59	2.000	8.972%	\$189,702.07
2.025	9.464%	\$191,639.79	2.025	8.962%	\$172,178.30
2.050	9.445%	\$193,629.37	2.050	8.963%	\$173,907.99
2.075	9.427%	\$186,618.48	2.075	8.964%	\$178,038.12
2.100	9.408%	\$189,607.06	2.100	8.965%	\$179,586.74
2.125	9.390%	\$186,595.57	2.125	8.966%	\$179,000.30
2.150	9.372%	\$201,682.87	2.150	8.967%	\$182,633.02
2.175	9.354%	\$203,670.39	2.175	8.968%	\$184,291.66
2.200	9.342%	\$205,616.49	2.200	8.969%	\$185,997.54
2.225	9.328%	\$207,469.21	2.225	8.970%	\$187,660.91
2.250	9.309%	\$209,408.74	2.250	8.971%	\$189,302.03
2.275	9.291%	\$211,343.03	2.275	8.972%	\$190,922.43
2.300	9.278%	\$213,363.18	2.300	8.973%	\$192,507.70
2.325	9.263%	\$215,367.18	2.325	8.974%	\$194,042.30
2.350	9.248%	\$217,318.03	2.350	8.975%	\$195,514.78
2.375	9.233%	\$219,270.81	2.375	8.976%	\$197,916.19
2.400	9.219%	\$221,238.53	2.400	8.977%	\$199,913.56
2.425	9.204%	\$223,182.23	2.425	8.978%	\$201,913.56
2.450	9.190%	\$225,107.89	2.450	8.979%	\$203,904.26
2.475	9.176%	\$227,007.69	2.475	8.980%	\$205,897.83
2.500	9.162%	\$228,947.48	2.500	8.981%	\$207,897.83
2.525	9.148%	\$229,906.37	2.525	8.982%	\$209,897.83
2.550	9.134%	\$230,894.37	2.550	8.983%	\$211,897.83
2.575	9.120%	\$231,899.33	2.575	8.984%	\$213,897.83
2.600	9.106%	\$231,789.33	2.600	8.985%	\$214,897.83
2.625	9.093%	\$246,707.05	2.625	8.986%	\$214,812.26
2.650	9.080%	\$246,044.91	2.650	8.987%	\$216,800.24
2.675	9.071%	\$245,678.23	2.675	8.988%	\$218,780.27
2.700	9.062%	\$245,612.54	2.700	8.989%	\$219,944.19
2.725	9.054%	\$245,574.89	2.725	8.990%	\$221,104.19
2.750	9.046%	\$245,574.89	2.750	8.991%	\$222,264.19
2.775	9.038%	\$245,574.89	2.775	8.992%	\$223,424.19
2.800	9.031%	\$245,574.89	2.800	8.993%	\$224,584.19
2.825	9.024%	\$245,574.89	2.825	8.994%	\$225,744.19
2.850	9.017%	\$245,574.89	2.850	8.995%	\$226,904.19
2.875	9.010%	\$245,574.89	2.875	8.996%	\$228,064.19
2.900	9.003%	\$245,574.89	2.900	8.997%	\$229,224.19
2.925	9.000%	\$245,574.89	2.925	8.998%	\$230,384.19
2.950	9.000%	\$245,574.89	2.950	8.999%	\$231,544.19
2.975	9.000%	\$245,574.89	2.975	8.999%	\$232,704.19
3.000	9.000%	\$245,574.89	3.000	8.999%	\$233,864.19
3.025	9.000%	\$245,574.89	3.025	8.999%	\$235,024.19
3.050	9.000%	\$245,574.89	3.050	8.999%	\$236,184.19
3.075	9.000%	\$245,574.89	3.075	8.999%	\$237,344.19

6/25/2002

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent
3,100	8.681%	\$276,333.41	3,100	7.806%	\$244,739.37	3,100	7.806%
3,125	8.871%	\$277,232.18	3,125	7.889%	\$246,439.23	3,125	7.889%
3,150	9.062%	\$278,130.95	3,150	7.976%	\$248,098.89	3,150	7.976%
3,175	9.254%	\$279,029.72	3,175	8.065%	\$249,798.73	3,175	8.065%
3,200	9.447%	\$280,928.49	3,200	8.156%	\$251,538.40	3,200	8.156%
3,225	9.641%	\$282,827.26	3,225	8.249%	\$253,317.87	3,225	8.249%
3,250	9.836%	\$284,726.03	3,250	8.344%	\$255,137.95	3,250	8.344%
3,275	10.032%	\$286,624.80	3,275	8.441%	\$257,000.00	3,275	8.441%
3,300	10.229%	\$288,523.57	3,300	8.540%	\$258,905.55	3,300	8.540%
3,325	10.427%	\$290,422.34	3,325	8.641%	\$260,853.53	3,325	8.641%
3,350	10.626%	\$292,321.11	3,350	8.744%	\$262,844.37	3,350	8.744%
3,375	10.826%	\$294,220.88	3,375	8.849%	\$264,877.82	3,375	8.849%
3,400	11.027%	\$296,120.65	3,400	8.956%	\$266,954.40	3,400	8.956%
3,425	11.229%	\$298,020.42	3,425	9.065%	\$269,074.64	3,425	9.065%
3,450	11.432%	\$299,920.19	3,450	9.176%	\$271,238.99	3,450	9.176%
3,475	11.636%	\$301,820.96	3,475	9.289%	\$273,448.49	3,475	9.289%
3,500	11.841%	\$303,721.73	3,500	9.404%	\$275,703.19	3,500	9.404%
3,525	12.047%	\$305,622.50	3,525	9.521%	\$278,003.64	3,525	9.521%
3,550	12.254%	\$307,523.27	3,550	9.640%	\$280,349.40	3,550	9.640%
3,575	12.462%	\$309,424.04	3,575	9.761%	\$282,740.99	3,575	9.761%
3,600	12.671%	\$311,324.81	3,600	9.884%	\$285,178.03	3,600	9.884%
3,625	12.881%	\$313,225.58	3,625	10.009%	\$287,661.18	3,625	10.009%
3,650	13.092%	\$315,126.35	3,650	10.136%	\$290,190.99	3,650	10.136%
3,675	13.304%	\$317,027.12	3,675	10.265%	\$292,767.99	3,675	10.265%
3,700	13.517%	\$318,927.89	3,700	10.396%	\$295,392.64	3,700	10.396%
3,725	13.731%	\$320,828.66	3,725	10.529%	\$298,065.50	3,725	10.529%
3,750	13.946%	\$322,729.43	3,750	10.664%	\$300,787.19	3,750	10.664%
3,775	14.162%	\$324,630.20	3,775	10.801%	\$303,558.24	3,775	10.801%
3,800	14.379%	\$326,530.97	3,800	10.940%	\$306,379.19	3,800	10.940%
3,825	14.597%	\$328,431.74	3,825	11.081%	\$309,250.99	3,825	11.081%
3,850	14.816%	\$330,332.51	3,850	11.224%	\$312,174.20	3,850	11.224%
3,875	15.036%	\$332,233.28	3,875	11.369%	\$315,149.36	3,875	11.369%
3,900	15.257%	\$334,134.05	3,900	11.516%	\$318,176.53	3,900	11.516%
3,925	15.479%	\$336,034.82	3,925	11.665%	\$321,256.36	3,925	11.665%
3,950	15.702%	\$337,935.59	3,950	11.816%	\$324,389.29	3,950	11.816%
3,975	15.926%	\$339,836.36	3,975	11.969%	\$327,575.86	3,975	11.969%
4,000	16.151%	\$341,737.13	4,000	12.124%	\$330,816.64	4,000	12.124%
4,025	16.377%	\$343,637.90	4,025	12.281%	\$334,113.09	4,025	12.281%
4,050	16.604%	\$345,538.67	4,050	12.440%	\$337,465.86	4,050	12.440%
4,075	16.832%	\$347,439.44	4,075	12.601%	\$340,875.59	4,075	12.601%
4,100	17.061%	\$349,340.21	4,100	12.764%	\$344,342.84	4,100	12.764%
4,125	17.291%	\$351,240.98	4,125	12.929%	\$347,868.16	4,125	12.929%
4,150	17.522%	\$353,141.75	4,150	13.096%	\$351,452.99	4,150	13.096%
4,175	17.754%	\$355,042.52	4,175	13.265%	\$355,097.86	4,175	13.265%
4,200	17.987%	\$356,943.29	4,200	13.436%	\$358,803.31	4,200	13.436%
4,225	18.221%	\$358,844.06	4,225	13.609%	\$362,569.00	4,225	13.609%
4,250	18.456%	\$360,744.83	4,250	13.784%	\$366,395.58	4,250	13.784%

3

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee		Cost of Construction In Millions	Percent	Fee	
4.275	8.509%	\$365,738.18		4.275	7.504%	\$321,083.78	
4.300	8.502%	\$365,692.48		4.300	7.504%	\$322,061.51	
4.325	8.495%	\$365,646.78		4.325	7.497%	\$322,268.37	
4.350	8.488%	\$365,601.08		4.350	7.491%	\$322,476.23	
4.375	8.481%	\$365,555.38		4.375	7.485%	\$322,684.09	
4.400	8.474%	\$365,509.68		4.400	7.479%	\$322,891.95	
4.425	8.467%	\$365,463.98		4.425	7.473%	\$323,099.81	
4.450	8.460%	\$365,418.28		4.450	7.467%	\$323,307.67	
4.475	8.453%	\$365,372.58		4.475	7.461%	\$323,515.53	
4.500	8.446%	\$365,326.88		4.500	7.455%	\$323,723.39	
4.525	8.439%	\$365,281.18		4.525	7.449%	\$323,931.25	
4.550	8.432%	\$365,235.48		4.550	7.443%	\$324,139.11	
4.575	8.425%	\$365,189.78		4.575	7.437%	\$324,346.97	
4.600	8.418%	\$365,144.08		4.600	7.431%	\$324,554.83	
4.625	8.411%	\$365,098.38		4.625	7.425%	\$324,762.69	
4.650	8.404%	\$365,052.68		4.650	7.419%	\$324,970.55	
4.675	8.397%	\$365,006.98		4.675	7.413%	\$325,178.41	
4.700	8.390%	\$364,961.28		4.700	7.407%	\$325,386.27	
4.725	8.383%	\$364,915.58		4.725	7.401%	\$325,594.13	
4.750	8.376%	\$364,869.88		4.750	7.395%	\$325,801.99	
4.775	8.369%	\$364,824.18		4.775	7.389%	\$326,009.85	
4.800	8.362%	\$364,778.48		4.800	7.383%	\$326,217.71	
4.825	8.355%	\$364,732.78		4.825	7.377%	\$326,425.57	
4.850	8.348%	\$364,687.08		4.850	7.371%	\$326,633.43	
4.875	8.341%	\$364,641.38		4.875	7.365%	\$326,841.29	
4.900	8.334%	\$364,595.68		4.900	7.359%	\$327,049.15	
4.925	8.327%	\$364,549.98		4.925	7.353%	\$327,257.01	
4.950	8.320%	\$364,504.28		4.950	7.347%	\$327,464.87	
4.975	8.313%	\$364,458.58		4.975	7.341%	\$327,672.73	
5.000	8.306%	\$364,412.88		5.000	7.335%	\$327,880.59	
5.025	8.299%	\$364,367.18		5.025	7.329%	\$328,088.45	
5.050	8.292%	\$364,321.48		5.050	7.323%	\$328,296.31	
5.075	8.285%	\$364,275.78		5.075	7.317%	\$328,504.17	
5.100	8.278%	\$364,230.08		5.100	7.311%	\$328,712.03	
5.125	8.271%	\$364,184.38		5.125	7.305%	\$328,919.89	
5.150	8.264%	\$364,138.68		5.150	7.299%	\$329,127.75	
5.175	8.257%	\$364,092.98		5.175	7.293%	\$329,335.61	
5.200	8.250%	\$364,047.28		5.200	7.287%	\$329,543.47	
5.225	8.243%	\$364,001.58		5.225	7.281%	\$329,751.33	
5.250	8.236%	\$363,955.88		5.250	7.275%	\$329,959.19	
5.275	8.229%	\$363,910.18		5.275	7.269%	\$330,167.05	
5.300	8.222%	\$363,864.48		5.300	7.263%	\$330,374.91	
5.325	8.215%	\$363,818.78		5.325	7.257%	\$330,582.77	
5.350	8.208%	\$363,773.08		5.350	7.251%	\$330,790.63	
5.375	8.201%	\$363,727.38		5.375	7.245%	\$331,000.00	
5.400	8.194%	\$363,681.68		5.400	7.239%	\$331,208.87	
5.425	8.187%	\$363,635.98		5.425	7.233%	\$331,417.73	
5.450	8.180%	\$363,590.28				\$331,626.60	
5.475	8.173%	\$363,544.58				\$331,835.47	
5.500	8.166%	\$363,498.88				\$332,044.33	
5.525	8.159%	\$363,453.18				\$332,253.20	
5.550	8.152%	\$363,407.48				\$332,462.07	
5.575	8.145%	\$363,361.78				\$332,670.93	
5.600	8.138%	\$363,316.08				\$332,879.80	
5.625	8.131%	\$363,270.38				\$333,088.67	
5.650	8.124%	\$363,224.68				\$333,297.53	
5.675	8.117%	\$363,178.98				\$333,506.40	
5.700	8.110%	\$363,133.28				\$333,715.27	
5.725	8.103%	\$363,087.58				\$333,924.13	
5.750	8.096%	\$363,041.88				\$334,132.99	
5.775	8.089%	\$362,996.18				\$334,341.86	
5.800	8.082%	\$362,950.48				\$334,550.73	
5.825	8.075%	\$362,904.78				\$334,759.59	
5.850	8.068%	\$362,859.08				\$334,968.46	
5.875	8.061%	\$362,813.38				\$335,177.32	
5.900	8.054%	\$362,767.68				\$335,386.19	
5.925	8.047%	\$362,721.98				\$335,595.05	
5.950	8.040%	\$362,676.28				\$335,803.92	
5.975	8.033%	\$362,630.58				\$336,012.78	
6.000	8.026%	\$362,584.88				\$336,221.65	
6.025	8.019%	\$362,539.18				\$336,430.51	
6.050	8.012%	\$362,493.48				\$336,639.38	
6.075	8.005%	\$362,447.78				\$336,848.24	
6.100	7.998%	\$362,402.08				\$337,057.11	
6.125	7.991%	\$362,356.38				\$337,265.97	
6.150	7.984%	\$362,310.68				\$337,474.84	
6.175	7.977%	\$362,264.98				\$337,683.70	
6.200	7.970%	\$362,219.28				\$337,892.57	
6.225	7.963%	\$362,173.58				\$338,101.43	
6.250	7.956%	\$362,127.88				\$338,310.30	
6.275	7.949%	\$362,082.18				\$338,519.16	
6.300	7.942%	\$362,036.48				\$338,728.03	
6.325	7.935%	\$361,990.78				\$338,936.89	
6.350	7.928%	\$361,945.08				\$339,145.76	
6.375	7.921%	\$361,899.38				\$339,354.62	
6.400	7.914%	\$361,853.68				\$339,563.49	
6.425	7.907%	\$361,807.98				\$339,772.35	
6.450	7.900%	\$361,762.28				\$339,981.22	
6.475	7.893%	\$361,716.58				\$340,190.08	
6.500	7.886%	\$361,670.88				\$340,398.95	
6.525	7.879%	\$361,625.18				\$340,607.81	
6.550	7.872%	\$361,579.48				\$340,816.68	
6.575	7.865%	\$361,533.78				\$341,025.54	
6.600	7.858%	\$361,488.08				\$341,234.41	
6.625	7.851%	\$361,442.38				\$341,443.27	
6.650	7.844%	\$361,396.68				\$341,652.14	
6.675	7.837%	\$361,350.98				\$341,860.99	
6.700	7.830%	\$361,305.28				\$342,069.86	
6.725	7.823%	\$361,259.58				\$342,278.72	
6.750	7.816%	\$361,213.88				\$342,487.59	
6.775	7.809%	\$361,168.18				\$342,696.45	
6.800	7.802%	\$361,122.48				\$342,905.32	
6.825	7.795%	\$361,076.78				\$343,114.18	
6.850	7.788%	\$361,031.08				\$343,323.05	
6.875	7.781%	\$360,985.38				\$343,531.91	
6.900	7.774%	\$360,939.68				\$343,740.78	
6.925	7.767%	\$360,893.98				\$343,949.64	
6.950	7.760%	\$360,848.28				\$344,158.51	
6.975	7.753%	\$360,802.58				\$344,367.37	
7.000	7.746%	\$360,756.88				\$344,576.24	
7.025	7.739%	\$360,711.18				\$344,785.10	
7.050	7.732%	\$360,665.48				\$344,993.97	
7.075	7.725%	\$360,619.78				\$345,202.83	
7.100	7.718%	\$360,574.08				\$345,411.70	
7.125	7.711%	\$360,528.38				\$345,620.56	
7.150	7.704%	\$360,482.68				\$345,829.43	
7.175	7.697%	\$360,436.98				\$346,038.29	
7.200	7.690%	\$360,391.28				\$346,247.16	
7.225	7.683%	\$360,345.58				\$346,456.02	
7.250	7.676%	\$360,300.00				\$346,664.88	
7.275	7.669%	\$360,254.50				\$346,873.74	
7.300	7.662%	\$360,209.00				\$347,082.60	
7.325	7.655%	\$360,163.50				\$347,291.46	
7.350	7.648%	\$360,118.00				\$347,500.32	
7.375	7.641%	\$360,072.50				\$347,709.18	
7.400	7.634%	\$360,027.00				\$347,918.04	
7.425	7.627%	\$359,981.50				\$348,126.90	
7.450	7.620%	\$359,936.00				\$348,335.76	
7.475	7.613%	\$359,890.50				\$348,544.62	
7.500	7.606%	\$359,845.00				\$348,753.48	
7.525	7.599%	\$359,799.50				\$348,962.34	
7.550	7.592%	\$359,754.00				\$349,171.20	
7.575	7.585%	\$359,708.50				\$349,380.06	
7.600	7.578%	\$359,663.00				\$349,588.92	
7.625	7.571%	\$359,617.50				\$349,797.78	
7.650	7.564%	\$359,572.00				\$349,996.64	
7.675	7.557%	\$359,526.50				\$350,200.00	
7.700	7.550%	\$359,481.00				\$350,400.00	
7.725	7.543%	\$359,435.50				\$350,600.00	
7.750	7.536%	\$359,390.00				\$350,800.00	
7.775	7.529%	\$359,344.50				\$351,000.00	
7.800	7.522%	\$359,299.00				\$351,200.00	
7.825	7.515%	\$359,253.50					

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction in Millions	Percent	Fee	Cost of Construction in Millions	Percent	Fee		
6.400	0.293%	\$460,123.22	6.400	7.253%	\$398,298.40		
6.475	0.295%	\$461,644.22	6.475	7.248%	\$398,600.41		
6.500	0.297%	\$463,164.60	6.500	7.244%	\$398,911.69		
6.525	0.299%	\$464,684.34	6.525	7.239%	\$399,222.63		
6.550	0.299%	\$467,403.47	6.550	7.236%	\$401,592.74		
6.575	0.299%	\$469,231.87	6.575	7.233%	\$403,092.22		
6.600	0.299%	\$471,059.47	6.600	7.230%	\$404,611.48		
6.625	0.299%	\$472,887.07	6.625	7.227%	\$406,150.74		
6.650	0.299%	\$474,714.67	6.650	7.224%	\$407,709.99		
6.675	0.299%	\$476,542.27	6.675	7.221%	\$409,289.24		
6.700	0.299%	\$478,369.87	6.700	7.218%	\$410,888.49		
6.725	0.299%	\$480,197.47	6.725	7.215%	\$412,506.74		
6.750	0.299%	\$482,025.07	6.750	7.212%	\$414,145.00		
6.775	0.299%	\$483,852.67	6.775	7.209%	\$415,803.25		
6.800	0.299%	\$485,680.27	6.800	7.206%	\$417,481.50		
6.825	0.299%	\$487,507.87	6.825	7.203%	\$419,179.75		
6.850	0.299%	\$489,335.47	6.850	7.200%	\$420,908.00		
6.875	0.299%	\$491,163.07	6.875	7.197%	\$422,666.25		
6.900	0.299%	\$492,990.67	6.900	7.194%	\$424,444.50		
6.925	0.299%	\$494,818.27	6.925	7.191%	\$426,242.75		
6.950	0.299%	\$496,645.87	6.950	7.188%	\$428,061.00		
6.975	0.299%	\$498,473.47	6.975	7.185%	\$429,909.25		
7.000	0.299%	\$499,301.07	7.000	7.182%	\$431,787.50		
7.025	0.299%	\$501,128.67	7.025	7.179%	\$433,695.75		
7.050	0.299%	\$502,956.27	7.050	7.176%	\$435,634.00		
7.075	0.299%	\$504,783.87	7.075	7.173%	\$437,602.25		
7.100	0.299%	\$506,611.47	7.100	7.170%	\$439,600.50		
7.125	0.299%	\$508,439.07	7.125	7.167%	\$441,628.75		
7.150	0.299%	\$510,266.67	7.150	7.164%	\$443,687.00		
7.175	0.299%	\$512,094.27	7.175	7.161%	\$445,775.25		
7.200	0.299%	\$513,921.87	7.200	7.158%	\$447,893.50		
7.225	0.299%	\$515,749.47	7.225	7.155%	\$450,041.75		
7.250	0.299%	\$517,577.07	7.250	7.152%	\$452,220.00		
7.275	0.299%	\$519,404.67	7.275	7.149%	\$454,428.25		
7.300	0.299%	\$521,232.27	7.300	7.146%	\$456,666.50		
7.325	0.299%	\$523,059.87	7.325	7.143%	\$458,934.75		
7.350	0.299%	\$524,887.47	7.350	7.140%	\$461,233.00		
7.375	0.299%	\$526,715.07	7.375	7.137%	\$463,561.25		
7.400	0.299%	\$528,542.67	7.400	7.134%	\$465,929.50		
7.425	0.299%	\$530,370.27	7.425	7.131%	\$468,337.75		
7.450	0.299%	\$532,197.87	7.450	7.128%	\$470,776.00		
7.475	0.299%	\$534,025.47	7.475	7.125%	\$473,244.25		
7.500	0.299%	\$535,853.07	7.500	7.122%	\$475,742.50		
7.525	0.299%	\$537,680.67	7.525	7.119%	\$478,270.75		
7.550	0.299%	\$539,508.27	7.550	7.116%	\$480,829.00		
7.575	0.299%	\$541,335.87	7.575	7.113%	\$483,417.25		
7.600	0.299%	\$543,163.47	7.600	7.110%	\$486,035.50		
7.625	0.299%	\$544,991.07	7.625	7.107%	\$488,683.75		
7.650	0.299%	\$546,818.67	7.650	7.104%	\$491,362.00		
7.675	0.299%	\$548,646.27	7.675	7.101%	\$494,070.25		
7.700	0.299%	\$550,473.87	7.700	7.098%	\$496,808.50		
7.725	0.299%	\$552,301.47	7.725	7.095%	\$499,576.75		
7.750	0.299%	\$554,129.07	7.750	7.092%	\$502,375.00		
7.775	0.299%	\$555,956.67	7.775	7.089%	\$505,203.25		
7.800	0.299%	\$557,784.27	7.800	7.086%	\$508,061.50		
7.825	0.299%	\$559,611.87	7.825	7.083%	\$510,949.75		
7.850	0.299%	\$561,439.47	7.850	7.080%	\$513,868.00		
7.875	0.299%	\$563,267.07	7.875	7.077%	\$516,816.25		
7.900	0.299%	\$565,094.67	7.900	7.074%	\$519,794.50		
7.925	0.299%	\$566,922.27	7.925	7.071%	\$522,802.75		
7.950	0.299%	\$568,749.87	7.950	7.068%	\$525,841.00		
7.975	0.299%	\$570,577.47	7.975	7.065%	\$528,909.25		
8.000	0.299%	\$572,405.07	8.000	7.062%	\$532,007.50		

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
6.820	8.077%	\$636,086.72	6.825	7.093%	\$468,071.34		
6.840	8.073%	\$636,081.61	6.850	7.082%	\$468,607.12		
6.875	8.070%	\$636,670.46	6.875	7.072%	\$471,182.41		
6.900	8.067%	\$640,470.81	6.900	7.063%	\$471,182.41		
6.925	8.063%	\$642,284.28	6.925	7.054%	\$472,211.61		
6.950	8.060%	\$644,057.48	6.950	7.046%	\$472,745.39		
6.975	8.057%	\$645,800.23	6.975	7.041%	\$477,278.78		
6.990	8.057%	\$646,404.31	6.990	7.038%	\$478,811.03		
6.995	8.057%	\$646,404.31	6.995	7.038%	\$481,344.08		
6.885	8.047%	\$661,228.65	6.880	7.031%	\$483,077.85		
6.880	8.044%	\$661,228.65	6.875	7.028%	\$484,608.68		
6.976	8.041%	\$684,820.87	6.800	7.025%	\$488,468.18		
6.975	8.041%	\$684,820.87	6.925	7.025%	\$489,468.18		
6.925	8.039%	\$690,608.95	6.950	7.022%	\$497,068.27		
6.920	8.039%	\$690,608.95	6.975	7.022%	\$497,068.27		
6.970	8.034%	\$692,358.47	6.900	7.018%	\$497,068.27		
6.970	8.034%	\$692,358.47	6.925	7.018%	\$497,068.27		
7.000	8.029%	\$691,984.17	7.000	7.014%	\$497,068.27		
7.025	8.025%	\$693,792.38	7.025	7.014%	\$497,068.27		
7.050	8.022%	\$695,640.09	7.050	7.008%	\$494,181.19		
7.075	8.019%	\$697,527.39	7.075	7.004%	\$495,448.04		
7.100	8.016%	\$699,442.28	7.100	7.002%	\$497,170.46		
7.125	8.013%	\$701,387.72	7.125	6.998%	\$499,125.08		
7.150	8.010%	\$703,362.86	7.150	6.995%	\$501,250.08		
7.160	8.010%	\$703,362.86	7.175	6.990%	\$503,275.71		
7.195	8.007%	\$707,472.22	7.200	6.987%	\$504,800.83		
7.200	8.004%	\$707,472.22	7.225	6.984%	\$506,826.72		
7.225	8.001%	\$709,527.39	7.250	6.981%	\$508,852.88		
7.250	7.998%	\$711,602.82	7.275	6.978%	\$510,879.36		
7.275	7.995%	\$713,700.43	7.300	6.975%	\$512,906.18		
7.300	7.992%	\$715,820.43	7.325	6.972%	\$514,933.35		
7.325	7.989%	\$717,962.81	7.350	6.969%	\$516,960.81		
7.350	7.986%	\$720,127.58	7.375	6.966%	\$519,000.39		
7.375	7.983%	\$722,315.81	7.400	6.963%	\$521,051.12		
7.400	7.980%	\$724,527.81	7.425	6.960%	\$523,113.12		
7.425	7.977%	\$726,763.68	7.450	6.957%	\$525,186.39		
7.450	7.974%	\$729,024.51	7.475	6.954%	\$527,271.04		
7.475	7.971%	\$731,320.59	7.500	6.951%	\$529,367.17		
7.500	7.968%	\$733,642.12	7.525	6.948%	\$531,474.36		
7.525	7.965%	\$736,000.45	7.550	6.945%	\$533,592.62		
7.550	7.962%	\$738,425.95	7.575	6.942%	\$535,721.95		
7.575	7.959%	\$740,918.05	7.600	6.939%	\$537,862.36		
7.600	7.956%	\$743,477.14	7.625	6.936%	\$540,013.85		
7.625	7.953%	\$746,104.21	7.650	6.933%	\$542,176.43		
7.650	7.950%	\$748,798.24	7.675	6.930%	\$544,350.11		
7.675	7.947%	\$751,559.21	7.700	6.927%	\$546,534.89		
7.700	7.944%	\$754,386.82	7.725	6.924%	\$548,729.78		
7.725	7.941%	\$757,280.59	7.750	6.921%	\$550,934.78		
7.750	7.938%	\$760,240.90	7.775	6.918%	\$553,150.00		
7.775	7.935%	\$763,267.39					

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MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
7.800	7.9395%	\$610,970.00	7.800	8.020%	\$530,766.08		
7.925	7.939%	\$620,751.33	7.925	8.017%	\$541,281.49		
7.950	7.930%	\$622,556.49	7.950	8.014%	\$541,281.49		
7.975	7.929%	\$624,300.70	7.975	8.012%	\$544,141.80		
7.990	7.928%	\$625,074.00	7.990	8.009%	\$545,656.45		
7.995	7.927%	\$625,481.19	7.995	8.008%	\$547,330.33		
7.998	7.926%	\$625,891.13	7.998	8.007%	\$548,052.54		
7.999	7.925%	\$626,304.13	7.999	8.006%	\$548,826.90		
7.9995	7.924%	\$626,719.89	7.9995	8.005%	\$549,653.74		
8.000	7.914%	\$627,138.89	8.000	8.004%	\$550,534.14		
8.025	7.912%	\$628,594.89	8.025	8.003%	\$551,467.79		
8.050	7.909%	\$629,701.88	8.050	8.002%	\$552,456.09		
8.100	7.901%	\$630,226.34	8.100	8.001%	\$553,499.97		
8.125	7.897%	\$630,728.38	8.125	8.000%	\$554,599.21		
8.150	7.894%	\$631,208.39	8.150	8.000%	\$555,753.74		
8.175	7.891%	\$631,665.23	8.175	8.000%	\$556,963.57		
8.200	7.887%	\$632,100.75	8.200	8.000%	\$558,228.82		
8.225	7.882%	\$632,515.91	8.225	8.000%	\$559,558.64		
8.250	7.877%	\$632,911.72	8.250	8.000%	\$560,953.19		
8.275	7.882%	\$633,289.28	8.275	8.000%	\$562,412.64		
8.300	7.884%	\$633,649.69	8.300	8.000%	\$563,937.07		
8.325	7.882%	\$633,993.08	8.325	8.000%	\$565,527.57		
8.350	7.880%	\$634,320.48	8.350	8.000%	\$567,184.20		
8.375	7.877%	\$634,632.89	8.375	8.000%	\$568,908.07		
8.400	7.872%	\$634,930.24	8.400	8.000%	\$570,698.23		
8.425	7.867%	\$635,213.04	8.425	8.000%	\$572,554.76		
8.450	7.862%	\$635,481.29	8.450	8.000%	\$574,477.91		
8.475	7.859%	\$635,734.97	8.475	8.000%	\$576,467.68		
8.500	7.859%	\$635,974.19	8.500	8.000%	\$578,524.14		
8.525	7.859%	\$636,200.98	8.525	8.000%	\$580,647.43		
8.550	7.859%	\$636,415.24	8.550	8.000%	\$582,837.68		
8.575	7.859%	\$636,617.47	8.575	8.000%	\$585,094.97		
8.600	7.859%	\$636,808.68	8.600	8.000%	\$587,419.40		
8.625	7.859%	\$636,989.87	8.625	8.000%	\$589,811.07		
8.650	7.859%	\$637,162.04	8.650	8.000%	\$592,270.00		
8.675	7.859%	\$637,325.69	8.675	8.000%	\$594,796.29		
8.700	7.859%	\$637,480.92	8.700	8.000%	\$597,389.96		
8.725	7.859%	\$637,627.71	8.725	8.000%	\$600,051.14		
8.750	7.859%	\$637,766.16	8.750	8.000%	\$602,780.97		
8.775	7.859%	\$637,896.28	8.775	8.000%	\$605,579.57		
8.800	7.859%	\$638,018.07	8.800	8.000%	\$608,447.00		
8.825	7.859%	\$638,131.44	8.825	8.000%	\$611,383.37		
8.850	7.859%	\$638,236.49	8.850	8.000%	\$614,388.78		
8.875	7.859%	\$638,333.24	8.875	8.000%	\$617,464.37		
8.900	7.859%	\$638,421.71	8.900	8.000%	\$620,610.18		
8.925	7.859%	\$638,501.98	8.925	8.000%	\$623,826.24		
8.950	7.859%	\$638,574.05	8.950	8.000%	\$627,112.61		

7

02/25/2002

MODIFIED CURVE A

MODIFIED CURVE B

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
8.978	7.622%	\$709,919.04	9.978	6.803%	\$810,400.61
9.025	7.644%	\$703,777.61	9.000	6.801%	\$612,069.62
9.069	7.619%	\$705,659.46	9.026	6.798%	\$491,699.32
9.076	7.613%	\$709,052.89	9.050	6.797%	\$916,098.71
9.100	7.611%	\$710,910.32	9.076	6.794%	\$910,994.74
9.126	7.609%	\$712,907.08	9.100	6.792%	\$910,922.54
9.150	7.607%	\$714,981.41	9.126	6.790%	\$910,857.13
9.200	7.603%	\$717,937.64	9.175	6.789%	\$692,693.97
9.225	7.600%	\$719,939.99	9.200	6.789%	\$692,690.49
9.250	7.598%	\$721,940.79	9.226	6.781%	\$926,979.71
9.276	7.595%	\$723,940.31	9.250	6.778%	\$927,972.03
9.300	7.593%	\$725,939.59	9.276	6.777%	\$928,964.24
9.326	7.591%	\$727,938.44	9.300	6.773%	\$929,956.46
9.350	7.700%	\$729,937.11	9.326	6.771%	\$931,956.69
9.375	7.789%	\$730,934.46	9.350	6.769%	\$933,953.89
9.400	7.784%	\$731,932.29	9.400	6.769%	\$934,947.09
9.426	7.784%	\$733,932.29	9.426	6.764%	\$936,941.60
9.450	7.782%	\$735,932.29	9.450	6.764%	\$937,936.62
9.476	7.779%	\$737,932.29	9.476	6.762%	\$938,931.64
9.500	7.778%	\$739,932.29	9.500	6.762%	\$940,926.67
9.526	7.778%	\$741,932.29	9.526	6.762%	\$942,921.70
9.550	7.774%	\$742,932.29	9.550	6.754%	\$943,916.83
9.576	7.772%	\$744,932.29	9.576	6.752%	\$945,911.86
9.600	7.770%	\$746,932.29	9.600	6.749%	\$946,906.89
9.626	7.768%	\$748,932.29	9.626	6.748%	\$948,901.92
9.650	7.764%	\$749,932.29	9.650	6.748%	\$949,896.95
9.676	7.762%	\$751,932.29	9.676	6.744%	\$951,891.98
9.700	7.762%	\$753,932.29	9.700	6.742%	\$953,886.98
9.726	7.760%	\$755,932.29	9.726	6.740%	\$955,881.98
9.750	7.758%	\$757,932.29	9.750	6.739%	\$957,876.98
9.776	7.756%	\$759,932.29	9.776	6.738%	\$959,871.98
9.800	7.754%	\$761,932.29	9.800	6.734%	\$961,866.98
9.826	7.752%	\$763,932.29	9.826	6.732%	\$963,861.98
9.850	7.750%	\$765,932.29	9.850	6.730%	\$965,856.98
9.876	7.748%	\$767,932.29	9.876	6.728%	\$967,851.98
9.900	7.746%	\$769,932.29	9.900	6.726%	\$969,846.98
9.926	7.744%	\$771,932.29	9.926	6.724%	\$971,841.98
9.950	7.742%	\$773,932.29	9.950	6.722%	\$973,836.98
9.976	7.740%	\$775,932.29	9.976	6.720%	\$975,831.98
10.000	7.738%	\$777,932.29	10.000	6.718%	\$977,826.98



Jimmie Schindewolf, P.E.  
General Manager

BOARD OF DIRECTORS  
Alan J. Rendt, *President*  
Kelly Fessler, *Vice President*  
Lenox A. Sigler, *Secretary*  
James D. Pulliam, *Treasurer*  
Ron Graham, *Asst. Secretary*

November 16, 2006

Mr. Dave Scholler, P.E.  
Project Manager  
Brown & Gay Engineers, Inc.  
10777 Westheimer, Suite 400  
Houston, Texas 77042


Re: Amended and Restated Agreement For Professional Engineering Services

Dear Mr. Scholler:

Transmitted herewith please find one fully executed duplicate original of the Amended and Restated Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and Brown & Gay Engineers, Inc. This Agreement was approved by the Authority Board of Directors at the November 6, 2006, Board meeting. I am also sending one duplicate original to Tom Rolan (Authority Program Director), one to Robin Bobbitt of Johnson Radcliff Petrov & Bobbitt PLLC, and I am retaining two for the Authority contract file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

  
Jimmie Schindewolf, P.E.  
General Manager

JAS/ln

Attachment

Cc: Robin S. Bobbitt, Johnson Radcliff Petrov & Bobbitt PLLC - w/attachment  
Tom Rolan, P.E., Turner Collier & Braden Inc. - w/attachment  
Shovri Nandagiri, P.E., NHCRWA  
Cyndi Phunkett, NHCRWA - w/attachment



**AMENDED AND RESTATED AGREEMENT  
FOR PROFESSIONAL ENGINEERING SERVICES**

(Brown & Gay Engineers, Inc.)

THE STATE OF TEXAS       §  
  §  
COUNTY OF HARRIS       §

THIS AMENDED AND RESTATED AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Amended Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and Brown & Gay Engineers, Inc. (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects;

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

The Authority and the Engineer have previously entered into an Agreement for Professional Engineering Services; however, due to changed circumstances and the need for clarification and revision, the Authority and the Engineer desire to enter into this Amended Agreement;

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION I**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected in the detailed Scope of Services attached as Appendices A and A-1 and that are specifically identified in the Scope of Services that will accompany each Work Authorization issued by the General Manager.
  
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional

services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).

3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.
4. "Design Phase Agreed Estimate" shall mean the estimate of probable Construction Cost for a Construction Package developed at the completion of the approved Preliminary Engineering Phase, updated at the completion of the Design Phase and agreed to in writing by the General Manager and the Engineer.
5. "Preliminary Phase Agreed Estimate" shall mean the estimate of probable Construction Cost developed and agreed to in writing by the General Manager and the Engineer prior to commencing work on the Preliminary Engineering Phase of the Project. This agreed estimate applies only to the Preliminary Engineering Phase.
6. "Program Manager" shall mean the Authority's manager of its water supply program.
7. "Project" shall mean a design and/or construction project of the Authority authorized by the General Manager through the issuance of a Work Authorization.

## SECTION II

### CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Amended Agreement, the General Manager of the Authority or his designee (hereinafter the "General Manager") may deliver to the Engineer written authorization (hereinafter known as "Work Authorization") in accordance with this Section for the performance of certain professional services with regard to specified Authority projects, which services the Engineer shall then perform in accordance with this Amended Agreement. The General Manager may authorize the Engineer to provide all or any of the engineering and related services that are listed in **Appendices A and A-1**, attached hereto and made a part hereof.

The Authority shall have no obligation to pay for any services hereunder that have been rendered without the prior Work Authorization of the General Manager. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the Authority with progress reports at such times and in such manner as may be requested by the General Manager. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the General Manager as soon as possible.

### SECTION III

#### TIME OF PERFORMANCE

Upon receipt of a Work Authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The Authority shall have no obligation to pay for a service performed after the required completion date for same, as set forth in its Work Authorization, except to the extent the date for required completion is extended and continuation of such service is approved by the General Manager.

### SECTION IV

#### THE ENGINEER'S COMPENSATION

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blueprint drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof, costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Amended Agreement are described as follows:

Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and Interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in **Appendix C**.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.

For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.

The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### **SECTION V**

##### **TIME OF PAYMENT**

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Amended Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager", in a form suitable to the Authority, setting forth the services provided under this Amended Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person

performing the services and countersigned by his/her supervisor certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Amended Agreement have been performed. Within forty-five (45) days after the performance of all services provided for in this Amended Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Amended Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

#### **SECTION VI**

#### **TERMINATION**

Either party may terminate this Amended Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Amended Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Amended Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Amended Agreement, less such payments on account of the changes as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Amended Agreement shall be delivered to the Authority when and if this Amended Agreement is terminated.

#### **SECTION VII**

#### **NOTICE**

Any notice required to be given under the provisions of this Amended Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Amended Agreement, all notices shall be delivered to the following addresses:

To the Engineer: Brown & Gay Engineers, Inc.  
10777 Westheimer, Suite 400  
Houston, Texas 77042

Attention: David Scholler, P.E., Senior Project Manager

To the Authority: North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Attention: General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### **SECTION VIII**

#### **SUCCESSORS AND ASSIGNS**

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Amended Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Amended Agreement. Neither the Authority nor the Engineer shall assign, subcontract, or transfer its or his/her interest in this Amended Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

#### **SECTION IX**

#### **PUBLIC CONTACT**

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Amended Agreement or any requested service shall be referred to the General Manager.

#### **SECTION X**

#### **COMPLIANCE AND STANDARDS**

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the

Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### SECTION XI

#### LICENSE REQUIREMENTS

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Amended Agreement.

#### SECTION XII

#### INSURANCE AND INDEMNIFICATION

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Amended Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Amended Agreement and that of its subcontractors or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subcontractants (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.



SECTION XIII  
OWNERSHIP OF PLANS, COPYRIGHT, AND  
OTHER INTELLECTUAL PROPERTY

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproducible, plans, preliminary layout, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Amended Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Amended Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Amended Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Amended Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Amended Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Amended Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproducible, plans, preliminary layout, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement.

Copies of all complete or partially complete information, programs, Mylar reproducible, plans, preliminary layout, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes therefor, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement, shall also be delivered

by the Engineer to the General Manager when and if this Amended Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

#### **SECTION XIV**

#### **MODIFICATIONS**

This instrument contains the entire Amended Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

#### **SECTION XV**

#### **AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Amended Agreement and all questions as to the acceptable fulfillment of this Amended Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Amended Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Amended Agreement.

#### **SECTION XVI**

#### **SEVERABILITY**

Any provision or part of this Amended Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Amended Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**SECTION XVII**

**MERGER**


The Parties agree that this Amended Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Amended Agreement.

[The remainder of this page intentionally left blank.]

SECTION XVIII  
EXECUTION

The Authority executes this Amended Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Amended Agreement shall not become effective until executed by all parties hereto.

NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

By:   
Alan I. Rendl, President  
Date Signed: 11-15-06

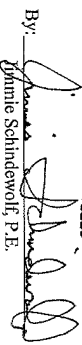
ATTEST:

By:   
Lenox A. Sidel

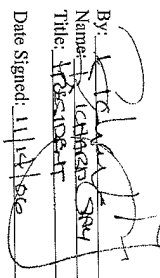
(AUTHORITY)  
APPROVED:



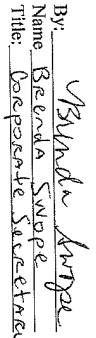
The seal is circular with a five-pointed star in the center. The text "NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY" is written around the perimeter of the seal.

By:   
Dianne Schindewolf, P.E.  
General Manager

BROWN & GAY ENGINEERS, INC.

By:   
Name: Richard Spiv  
Title: President  
Date Signed: 11/14/06

ATTEST:

By:   
Name: Brenda Sapiro  
Title: Corporate Secretary

APPENDIX A  
SCOPE OF SERVICES

(Brown & Gay Engineers, Inc.)

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see Appendix A-1) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnects, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.

APPENDIX A-1

SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES

(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

1. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternative water line alignments considering all relevant factors and prepare schematic layouts for each alternative route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review.
  - i. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.

2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues



- associated with such submittals within fourteen (14) calendar days of receipt of submittals from the Program Manager.
- e. Prepare revisions to the contract documents (*i.e.*, change orders) at no charge to the Authority when such change orders are required to make clarifications, correct discrepancies, errors or omissions to the contract documents.
  - f. When requested by the Program Manager, evaluate contractor changes and cost proposals and recommend action to the Program Manager.
  - g. Make monthly site visits to the Project site to observe the progress and quality of the executed work. Such site visits are to be coordinated with the Program Manager and a site visit report shall be submitted to the Program Manager after each such site visit, indicating observations related to the executed work.
  - h. Attend final Project walkthrough.
  - i. Prepare "record drawings" indicating changes to the contract drawings and showing significant changes made to the work during the construction of the Project. Such changes will be based upon marked-up "record drawings" furnished to the Engineer by the Program Manager and the construction contractor.

APPENDIX B  
HOURLY RATE SHEET  
(Brown & Gay Engineers, Inc.)

Effective November 1, 2004

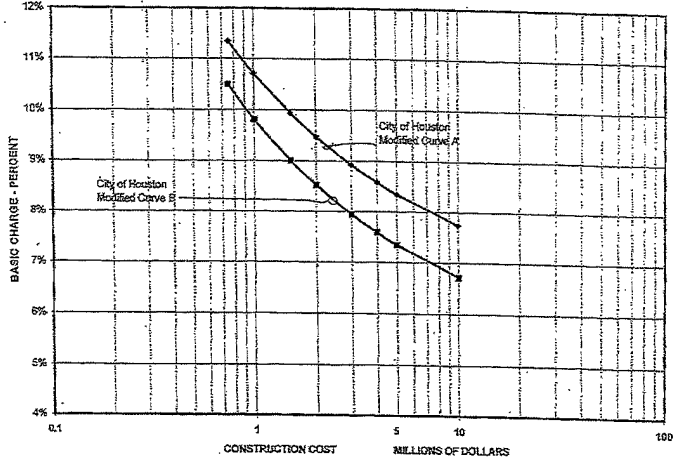
<u>Classification</u>	<u>Hourly Rate</u>
Principal	\$200.00/hr.
Project Manager	170.00/hr.
Engineer	120.00/hr.
CADD Technician	100.00/hr.
Secretary	50.00/hr.
Survey Crew	120.00/hr.
Survey Crew w/ GPS	150.00/hr.

- Notes:**
- (1) Additional classifications and subsequent year rates must be approved in writing by the General Manager.
  - (2) Subconsultant costs and other miscellaneous expenses as approved by the General Manager will be paid at cost plus 10%.

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
Curves of Median Compensation  
Curves A and B

*Shawn Nease*  
Shawn Nease, P.E.  
Deputy Director

*Jose C. Van den Bosch*  
Jose C. Van den Bosch, P.E.  
Director



6/26/2002

MODIFIED CURVE A			MODIFIED CURVE B		
Chart of Commission In Millions	Percent	Fee	Chart of Commission In Millions	Percent	Fee
0.760	11.347%	\$95,098.31	0.730	10.408%	\$78,698.94
0.776	11.270%	\$97,538.27	0.776	10.407%	\$80,888.49
0.800	11.198%	\$98,986.55	0.800	10.407%	\$82,000.44
0.825	11.129%	\$100,434.83	0.825	10.405%	\$83,112.39
0.850	11.065%	\$101,883.11	0.850	10.403%	\$84,224.34
0.875	11.005%	\$103,331.39	0.875	10.401%	\$85,336.29
0.900	10.949%	\$104,779.67	0.900	10.399%	\$86,448.24
0.925	10.897%	\$106,227.95	0.925	10.397%	\$87,560.19
0.950	10.848%	\$107,676.23	0.950	10.395%	\$88,672.14
0.975	10.802%	\$109,124.51	0.975	10.393%	\$89,784.09
1.000	10.759%	\$110,572.79	1.000	10.391%	\$90,896.04
1.025	10.719%	\$112,021.07	1.025	10.389%	\$92,007.99
1.050	10.681%	\$113,469.35	1.050	10.387%	\$93,119.94
1.075	10.645%	\$114,917.63	1.075	10.385%	\$94,231.89
1.100	10.611%	\$116,365.91	1.100	10.383%	\$95,343.84
1.125	10.579%	\$117,814.19	1.125	10.381%	\$96,455.79
1.150	10.548%	\$119,262.47	1.150	10.379%	\$97,567.74
1.175	10.519%	\$120,710.75	1.175	10.377%	\$98,679.69
1.200	10.492%	\$122,159.03	1.200	10.375%	\$99,791.64
1.225	10.466%	\$123,607.31	1.225	10.373%	\$100,903.59
1.250	10.442%	\$125,055.59	1.250	10.371%	\$102,015.54
1.275	10.419%	\$126,503.87	1.275	10.369%	\$103,127.49
1.300	10.398%	\$127,952.15	1.300	10.367%	\$104,239.44
1.325	10.378%	\$129,400.43	1.325	10.365%	\$105,351.39
1.350	10.359%	\$130,848.71	1.350	10.363%	\$106,463.34
1.375	10.341%	\$132,296.99	1.375	10.361%	\$107,575.29
1.400	10.324%	\$133,745.27	1.400	10.359%	\$108,687.24
1.425	10.308%	\$135,193.55	1.425	10.357%	\$109,799.19
1.450	10.293%	\$136,641.83	1.450	10.355%	\$110,911.14
1.475	10.279%	\$138,090.11	1.475	10.353%	\$112,023.09
1.500	10.265%	\$139,538.39	1.500	10.351%	\$113,135.04
1.525	10.252%	\$140,986.67	1.525	10.349%	\$114,246.99
1.550	10.240%	\$142,434.95	1.550	10.347%	\$115,358.94
1.575	10.229%	\$143,883.23	1.575	10.345%	\$116,470.89
1.600	10.218%	\$145,331.51	1.600	10.343%	\$117,582.84
1.625	10.208%	\$146,779.79	1.625	10.341%	\$118,694.79
1.650	10.200%	\$148,228.07	1.650	10.339%	\$119,806.74
1.675	10.192%	\$149,676.35	1.675	10.337%	\$120,918.69
1.700	10.185%	\$151,124.63	1.700	10.335%	\$122,030.64
1.725	10.178%	\$152,572.91	1.725	10.333%	\$123,142.59
1.750	10.172%	\$154,021.19	1.750	10.331%	\$124,254.54
1.775	10.166%	\$155,469.47	1.775	10.329%	\$125,366.49
1.800	10.161%	\$156,917.75	1.800	10.327%	\$126,478.44
1.825	10.156%	\$158,366.03	1.825	10.325%	\$127,590.39
1.850	10.151%	\$159,814.31	1.850	10.323%	\$128,702.34
1.875	10.147%	\$161,262.59	1.875	10.321%	\$129,814.29
1.900	10.143%	\$162,710.87	1.900	10.319%	\$130,926.24
1.925	10.139%	\$164,159.15	1.925	10.317%	\$132,038.19
1.950	10.136%	\$165,607.43	1.950	10.315%	\$133,150.14
1.975	10.133%	\$167,055.71	1.975	10.313%	\$134,262.09
2.000	10.130%	\$168,504.00	2.000	10.311%	\$135,374.04
2.025	10.128%	\$169,952.28	2.025	10.309%	\$136,485.99
2.050	10.126%	\$171,400.56	2.050	10.307%	\$137,597.94
2.075	10.124%	\$172,848.84	2.075	10.305%	\$138,709.89
2.100	10.122%	\$174,297.12	2.100	10.303%	\$139,821.84
2.125	10.120%	\$175,745.40	2.125	10.301%	\$140,933.79
2.150	10.118%	\$177,193.68	2.150	10.299%	\$142,045.74
2.175	10.116%	\$178,641.96	2.175	10.297%	\$143,157.69
2.200	10.114%	\$180,090.24	2.200	10.295%	\$144,269.64
2.225	10.112%	\$181,538.52	2.225	10.293%	\$145,381.59
2.250	10.110%	\$182,986.80	2.250	10.291%	\$146,493.54
2.275	10.108%	\$184,435.08	2.275	10.289%	\$147,605.49
2.300	10.106%	\$185,883.36	2.300	10.287%	\$148,717.44
2.325	10.104%	\$187,331.64	2.325	10.285%	\$149,829.39
2.350	10.102%	\$188,779.92	2.350	10.283%	\$150,941.34
2.375	10.100%	\$190,228.20	2.375	10.281%	\$152,053.29
2.400	10.098%	\$191,676.48	2.400	10.279%	\$153,165.24
2.425	10.096%	\$193,124.76	2.425	10.277%	\$154,277.19
2.450	10.094%	\$194,573.04	2.450	10.275%	\$155,389.14
2.475	10.092%	\$196,021.32	2.475	10.273%	\$156,501.09
2.500	10.090%	\$197,469.60	2.500	10.271%	\$157,613.04
2.525	10.088%	\$198,917.88	2.525	10.269%	\$158,724.99
2.550	10.086%	\$200,366.16	2.550	10.267%	\$159,836.94
2.575	10.084%	\$201,814.44	2.575	10.265%	\$160,948.89
2.600	10.082%	\$203,262.72	2.600	10.263%	\$162,060.84
2.625	10.080%	\$204,711.00	2.625	10.261%	\$163,172.79
2.650	10.078%	\$206,159.28	2.650	10.259%	\$164,284.74
2.675	10.076%	\$207,607.56	2.675	10.257%	\$165,396.69
2.700	10.074%	\$209,055.84	2.700	10.255%	\$166,508.64
2.725	10.072%	\$210,504.12	2.725	10.253%	\$167,620.59
2.750	10.070%	\$211,952.40	2.750	10.251%	\$168,732.54
2.775	10.068%	\$213,400.68	2.775	10.249%	\$169,844.49
2.800	10.066%	\$214,848.96	2.800	10.247%	\$170,956.44
2.825	10.064%	\$216,297.24	2.825	10.245%	\$172,068.39
2.850	10.062%	\$217,745.52	2.850	10.243%	\$173,180.34
2.875	10.060%	\$219,193.80	2.875	10.241%	\$174,292.29
2.900	10.058%	\$220,642.08	2.900	10.239%	\$175,404.24
2.925	10.056%	\$222,090.36	2.925	10.237%	\$176,516.19
2.950	10.054%	\$223,538.64	2.950	10.235%	\$177,628.14
2.975	10.052%	\$224,986.92	2.975	10.233%	\$178,740.09
3.000	10.050%	\$226,435.20	3.000	10.231%	\$179,852.04

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6/26/2002

MODIFIED CURVE A			MODIFIED CURVE B		
Coal of Conversion In Millions	Percent	Fee	Coal of Conversion In Millions	Percent	Fee
1,025	6.641%	\$183,965.17	1,025	8.039%	\$168,210.06
1,950	8.924%	\$108,056.53	1,060	8.862%	\$108,501.44
1,975	8.924%	\$187,062.78	1,095	8.823%	\$188,702.07
1,990	8.924%	\$191,962.78	2,020	8.692%	\$172,775.80
2,020	9.465%	\$193,658.78	2,050	8.495%	\$173,607.90
2,050	9.465%	\$198,628.97	2,075	8.494%	\$175,038.12
2,075	9.465%	\$198,618.46	2,100	8.288%	\$177,305.71
2,100	9.410%	\$197,801.08	2,125	8.288%	\$180,613.60
2,125	9.315%	\$197,801.08	2,150	8.410%	\$180,613.60
2,150	9.315%	\$201,652.57	2,175	8.392%	\$182,433.92
2,175	9.349%	\$203,616.38	2,200	8.370%	\$184,231.08
2,200	9.349%	\$205,618.43	2,225	8.347%	\$186,001.88
2,225	9.349%	\$207,468.21	2,250	8.324%	\$187,749.51
2,250	9.278%	\$211,427.05	2,275	8.324%	\$189,582.03
2,275	9.278%	\$213,903.18	2,300	8.309%	\$191,100.05
2,300	9.278%	\$215,397.18	2,325	8.293%	\$192,607.70
2,325	9.278%	\$217,537.03	2,350	8.277%	\$194,100.00
2,350	9.278%	\$219,182.23	2,375	8.263%	\$195,574.78
2,375	9.278%	\$221,328.63	2,400	8.249%	\$197,014.18
2,400	9.249%	\$223,182.23	2,425	8.231%	\$198,514.85
2,425	9.249%	\$224,188.84	2,450	8.217%	\$200,000.00
2,450	9.180%	\$226,188.84	2,475	8.203%	\$201,475.00
2,475	9.180%	\$227,188.84	2,500	8.189%	\$202,937.00
2,500	9.146%	\$228,647.58	2,525	8.174%	\$204,397.00
2,525	9.146%	\$229,647.58	2,550	8.160%	\$205,850.00
2,550	9.139%	\$232,044.37	2,575	8.145%	\$207,300.00
2,575	9.122%	\$234,836.52	2,600	8.130%	\$208,747.10
2,600	9.122%	\$237,633.33	2,625	8.115%	\$210,191.00
2,625	9.083%	\$238,768.33	2,650	8.100%	\$211,631.30
2,650	9.083%	\$240,707.05	2,675	8.109%	\$213,168.08
2,675	9.071%	\$242,644.01	2,700	8.095%	\$214,691.32
2,700	9.071%	\$244,644.54	2,725	8.080%	\$216,200.00
2,725	9.023%	\$246,644.54	2,750	8.065%	\$217,694.16
2,750	9.023%	\$248,644.54	2,775	8.049%	\$219,184.16
2,775	9.011%	\$250,574.68	2,800	8.033%	\$220,669.00
2,800	9.011%	\$252,423.17	2,825	8.018%	\$222,149.00
2,825	8.995%	\$254,188.37	2,850	8.003%	\$223,624.00
2,850	8.977%	\$255,978.83	2,875	7.988%	\$225,094.28
2,875	8.977%	\$258,078.83	2,900	7.984%	\$226,559.00
2,900	8.989%	\$260,001.02	2,925	7.969%	\$228,018.00
2,925	8.989%	\$261,927.63	2,950	7.961%	\$229,471.00
2,950	8.933%	\$263,854.52	2,975	7.951%	\$230,918.00
2,975	8.933%	\$265,781.06	3,000	7.939%	\$232,360.00
3,000	8.933%	\$267,707.06	3,025	7.929%	\$233,807.10
3,025	8.922%	\$269,633.57	3,050	7.918%	\$235,249.00
3,050	8.922%	\$271,560.52	3,075	7.907%	\$236,686.00
3,075	8.911%	\$273,487.53			

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Completion in Millions	Percent	Fee	Cost of Completion in Millions	Percent	Fee	Cost of Completion in Millions	Percent
3.100	8.881%	\$275,333.41	3.100	7.880%	\$244,788.37	3.100	7.880%
3.125	8.871%	\$277,232.18	3.125	7.880%	\$246,488.23	3.125	7.880%
3.150	8.862%	\$279,130.95	3.150	7.880%	\$248,188.09	3.150	7.880%
3.175	8.854%	\$281,029.72	3.175	7.880%	\$249,887.95	3.175	7.880%
3.200	8.846%	\$282,928.49	3.200	7.880%	\$251,587.81	3.200	7.880%
3.225	8.838%	\$284,827.26	3.225	7.880%	\$253,287.67	3.225	7.880%
3.250	8.830%	\$286,726.03	3.250	7.880%	\$254,987.53	3.250	7.880%
3.275	8.822%	\$288,624.80	3.275	7.880%	\$256,687.39	3.275	7.880%
3.300	8.814%	\$290,523.57	3.300	7.880%	\$258,387.25	3.300	7.880%
3.325	8.806%	\$292,422.34	3.325	7.880%	\$260,087.11	3.325	7.880%
3.350	8.798%	\$294,321.11	3.350	7.880%	\$261,786.97	3.350	7.880%
3.375	8.790%	\$296,219.88	3.375	7.880%	\$263,486.83	3.375	7.880%
3.400	8.782%	\$298,118.65	3.400	7.880%	\$265,186.69	3.400	7.880%
3.425	8.774%	\$299,999.42	3.425	7.880%	\$266,886.55	3.425	7.880%
3.450	8.766%	\$301,880.19	3.450	7.880%	\$268,586.41	3.450	7.880%
3.475	8.758%	\$303,760.96	3.475	7.880%	\$270,286.27	3.475	7.880%
3.500	8.750%	\$305,641.73	3.500	7.880%	\$271,986.13	3.500	7.880%
3.525	8.742%	\$307,522.50	3.525	7.880%	\$273,685.99	3.525	7.880%
3.550	8.734%	\$309,403.27	3.550	7.880%	\$275,385.85	3.550	7.880%
3.575	8.726%	\$311,284.04	3.575	7.880%	\$277,085.71	3.575	7.880%
3.600	8.718%	\$313,164.81	3.600	7.880%	\$278,785.57	3.600	7.880%
3.625	8.710%	\$315,045.58	3.625	7.880%	\$280,485.43	3.625	7.880%
3.650	8.702%	\$316,926.35	3.650	7.880%	\$282,185.29	3.650	7.880%
3.675	8.694%	\$318,807.12	3.675	7.880%	\$283,885.15	3.675	7.880%
3.700	8.686%	\$320,687.89	3.700	7.880%	\$285,585.01	3.700	7.880%
3.725	8.678%	\$322,568.66	3.725	7.880%	\$287,284.87	3.725	7.880%
3.750	8.670%	\$324,449.43	3.750	7.880%	\$288,984.73	3.750	7.880%
3.775	8.662%	\$326,330.20	3.775	7.880%	\$290,684.59	3.775	7.880%
3.800	8.654%	\$328,210.97	3.800	7.880%	\$292,384.45	3.800	7.880%
3.825	8.646%	\$330,091.74	3.825	7.880%	\$294,084.31	3.825	7.880%
3.850	8.638%	\$331,972.51	3.850	7.880%	\$295,784.17	3.850	7.880%
3.875	8.630%	\$333,853.28	3.875	7.880%	\$297,484.03	3.875	7.880%
3.900	8.622%	\$335,734.05	3.900	7.880%	\$299,183.89	3.900	7.880%
3.925	8.614%	\$337,614.82	3.925	7.880%	\$300,883.75	3.925	7.880%
3.950	8.606%	\$339,495.59	3.950	7.880%	\$302,583.61	3.950	7.880%
3.975	8.598%	\$341,376.36	3.975	7.880%	\$304,283.47	3.975	7.880%
4.000	8.590%	\$343,257.13	4.000	7.880%	\$305,983.33	4.000	7.880%
4.025	8.582%	\$345,137.90	4.025	7.880%	\$307,683.19	4.025	7.880%
4.050	8.574%	\$347,018.67	4.050	7.880%	\$309,383.05	4.050	7.880%
4.075	8.566%	\$348,899.44	4.075	7.880%	\$311,082.91	4.075	7.880%
4.100	8.558%	\$350,780.21	4.100	7.880%	\$312,782.77	4.100	7.880%
4.125	8.550%	\$352,660.98	4.125	7.880%	\$314,482.63	4.125	7.880%
4.150	8.542%	\$354,541.75	4.150	7.880%	\$316,182.49	4.150	7.880%
4.175	8.534%	\$356,422.52	4.175	7.880%	\$317,882.35	4.175	7.880%
4.200	8.526%	\$358,303.29	4.200	7.880%	\$319,582.21	4.200	7.880%
4.225	8.518%	\$360,184.06	4.225	7.880%	\$321,282.07	4.225	7.880%
4.250	8.510%	\$362,064.83	4.250	7.880%	\$322,981.93	4.250	7.880%

02/20/202

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Contribution In Millions	Percent	Fee	Cost of Contribution In Millions	Percent	Fee
4.276	8.808%	\$339,726.18	4.276	7.610%	\$321,063.78
4.310	8.808%	\$339,726.18	4.310	7.610%	\$321,063.78
4.326	8.490%	\$360,302.43	4.326	7.487%	\$322,881.31
4.360	8.490%	\$360,302.43	4.360	7.487%	\$322,881.31
4.376	8.481%	\$371,166.08	4.376	7.489%	\$327,484.41
4.400	8.477%	\$373,008.88	4.400	7.490%	\$328,043.61
4.424	8.468%	\$375,488.80	4.424	7.488%	\$328,582.41
4.460	8.468%	\$376,711.89	4.460	7.469%	\$332,229.41
4.476	8.468%	\$378,602.10	4.476	7.469%	\$333,821.01
4.600	8.464%	\$380,411.48	4.600	7.464%	\$338,411.77
4.624	8.463%	\$382,260.03	4.624	7.466%	\$339,001.58
4.640	8.463%	\$383,997.49	4.640	7.466%	\$339,591.39
4.676	8.463%	\$386,394.68	4.676	7.463%	\$340,478.89
4.690	8.463%	\$387,800.75	4.690	7.463%	\$341,728.41
4.696	8.463%	\$389,648.03	4.696	7.464%	\$343,339.00
4.698	8.463%	\$391,496.38	4.698	7.462%	\$344,828.72
4.700	8.463%	\$393,344.73	4.700	7.462%	\$346,298.44
4.709	8.460%	\$395,193.07	4.709	7.461%	\$348,107.94
4.728	8.460%	\$397,041.41	4.728	7.461%	\$349,091.33
4.760	8.397%	\$398,890.80	4.760	7.385%	\$351,278.52
4.800	8.397%	\$398,890.80	4.800	7.385%	\$351,278.52
4.810	8.397%	\$399,740.14	4.810	7.385%	\$352,127.86
4.828	8.381%	\$402,640.63	4.828	7.384%	\$354,458.77
4.828	8.381%	\$404,379.88	4.828	7.384%	\$356,189.68
4.860	8.376%	\$408,210.13	4.860	7.379%	\$359,017.04
4.876	8.376%	\$410,058.14	4.876	7.379%	\$360,748.28
4.890	8.369%	\$411,728.46	4.890	7.369%	\$362,479.52
4.890	8.369%	\$413,603.75	4.890	7.369%	\$364,210.76
4.976	8.359%	\$416,598.32	4.976	7.348%	\$366,942.00
5.000	8.346%	\$417,529.72	5.000	7.348%	\$368,673.24
5.000	8.346%	\$420,397.71	5.000	7.348%	\$370,404.48
5.000	8.338%	\$420,397.71	5.000	7.348%	\$372,135.72
5.076	8.330%	\$422,728.42	5.076	7.337%	\$374,778.60
5.100	8.329%	\$424,860.42	5.100	7.337%	\$376,920.54
5.128	8.315%	\$428,220.53	5.128	7.311%	\$379,062.44
5.176	8.310%	\$430,049.58	5.176	7.306%	\$379,062.44
5.300	8.300%	\$431,577.48	5.300	7.301%	\$379,062.44
5.326	8.301%	\$433,708.48	5.326	7.288%	\$381,204.38
5.376	8.291%	\$437,208.14	5.376	7.288%	\$384,430.09
5.576	8.283%	\$441,008.67	5.576	7.281%	\$386,902.71
5.590	8.271%	\$444,846.37	5.590	7.267%	\$389,000.65
5.600	8.268%	\$446,978.30	5.600	7.267%	\$390,000.65
5.626	8.264%	\$448,901.68	5.626	7.264%	\$393,726.93

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6/28/2002

MODIFIED CURVE A

MODIFIED CURVE B

Cost of Construction in Millions	Percent	Fee	Cost of Construction in Millions	Percent	Fee
6.480	0.2839%	\$460,123.22	6.480	7.2839%	\$398,289.40
6.476	0.2835%	\$461,844.22	6.476	7.2481%	\$398,600.61
6.480	0.2839%	\$461,844.22	6.480	7.2839%	\$398,600.61
6.484	0.2842%	\$463,565.22	6.484	7.2481%	\$398,911.83
6.429	0.2469%	\$468,684.34	6.429	7.2096%	\$399,223.05
6.660	0.2424%	\$487,463.47	6.660	7.2309%	\$401,653.74
6.975	0.2374%	\$488,221.97	6.975	7.2309%	\$401,653.74
6.900	0.2333%	\$491,630.98	6.900	7.2309%	\$401,653.74
6.868	0.2330%	\$494,039.99	6.868	7.2096%	\$404,893.09
6.868	0.2330%	\$494,039.99	6.868	7.2179%	\$407,198.84
6.975	0.2308%	\$499,469.98	6.975	7.2194%	\$409,293.99
6.700	0.2169%	\$498,305.33	6.700	7.2096%	\$410,468.39
6.728	0.2182%	\$497,120.19	6.728	7.2096%	\$412,656.18
6.772	0.2203%	\$497,935.04	6.772	7.2096%	\$414,843.97
6.400	0.1899%	\$497,748.16	6.772	7.1999%	\$416,664.86
6.400	0.1899%	\$497,748.16	6.400	7.1914%	\$418,485.75
6.428	0.1954%	\$497,563.25	6.428	7.1878%	\$420,306.64
6.350	0.1814%	\$497,378.33	6.350	7.1842%	\$422,127.53
6.350	0.1814%	\$497,378.33	6.350	7.1806%	\$423,948.42
6.328	0.1819%	\$497,193.41	6.328	7.1770%	\$425,769.31
6.300	0.1833%	\$497,008.50	6.300	7.1734%	\$427,590.20
6.300	0.1833%	\$497,008.50	6.300	7.1698%	\$429,411.09
6.328	0.1776%	\$496,823.58	6.328	7.1662%	\$431,231.98
6.350	0.1753%	\$496,638.67	6.350	7.1626%	\$433,052.87
6.390	0.1733%	\$496,453.76	6.390	7.1590%	\$434,873.76
6.420	0.1715%	\$496,268.85	6.420	7.1554%	\$436,694.65
6.450	0.1701%	\$496,083.94	6.450	7.1518%	\$438,515.54
6.480	0.1691%	\$495,899.03	6.480	7.1482%	\$440,336.43
6.510	0.1684%	\$495,714.12	6.510	7.1446%	\$442,157.32
6.540	0.1679%	\$495,529.21	6.540	7.1410%	\$443,978.21
6.570	0.1676%	\$495,344.30	6.570	7.1374%	\$445,799.10
6.600	0.1675%	\$495,159.39	6.600	7.1338%	\$447,620.00
6.630	0.1676%	\$494,974.48	6.630	7.1302%	\$449,440.89
6.660	0.1678%	\$494,789.57	6.660	7.1266%	\$451,261.78
6.690	0.1683%	\$494,604.66	6.690	7.1230%	\$453,082.67
6.720	0.1690%	\$494,419.75	6.720	7.1194%	\$454,903.56
6.750	0.1700%	\$494,234.84	6.750	7.1158%	\$456,724.45
6.780	0.1712%	\$494,049.93	6.780	7.1122%	\$458,545.34
6.810	0.1727%	\$493,865.02	6.810	7.1086%	\$460,366.23
6.840	0.1745%	\$493,680.11	6.840	7.1050%	\$462,187.12
6.870	0.1766%	\$493,495.20	6.870	7.1014%	\$464,008.01
6.900	0.1791%	\$493,310.29	6.900	7.0978%	\$465,828.90
6.930	0.1820%	\$493,125.38	6.930	7.0942%	\$467,649.79
6.960	0.1854%	\$492,940.47	6.960	7.0906%	\$469,470.68
6.990	0.1894%	\$492,755.56	6.990	7.0870%	\$471,291.57
7.020	0.1941%	\$492,570.65	7.020	7.0834%	\$473,112.46
7.050	0.1995%	\$492,385.74	7.050	7.0798%	\$474,933.35
7.080	0.2057%	\$492,200.83	7.080	7.0762%	\$476,754.24
7.110	0.2128%	\$492,015.92	7.110	7.0726%	\$478,575.13
7.140	0.2208%	\$491,831.01	7.140	7.0690%	\$480,396.02
7.170	0.2300%	\$491,646.10	7.170	7.0654%	\$482,216.91
7.200	0.2405%	\$491,461.19	7.200	7.0618%	\$484,037.80
7.230	0.2526%	\$491,276.28	7.230	7.0582%	\$485,858.69
7.260	0.2666%	\$491,091.37	7.260	7.0546%	\$487,679.58
7.290	0.2827%	\$490,906.46	7.290	7.0510%	\$489,500.47
7.320	0.3014%	\$490,721.55	7.320	7.0474%	\$491,321.36
7.350	0.3232%	\$490,536.64	7.350	7.0438%	\$493,142.25
7.380	0.3489%	\$490,351.73	7.380	7.0402%	\$494,963.14
7.410	0.3784%	\$490,166.82	7.410	7.0366%	\$496,784.03
7.440	0.4128%	\$489,981.91	7.440	7.0330%	\$498,604.92
7.470	0.4534%	\$489,797.00	7.470	7.0294%	\$500,425.81
7.500	0.5018%	\$489,612.09	7.500	7.0258%	\$502,246.70
7.530	0.5592%	\$489,427.18	7.530	7.0222%	\$504,067.59
7.560	0.6272%	\$489,242.27	7.560	7.0186%	\$505,888.48
7.590	0.7076%	\$489,057.36	7.590	7.0150%	\$507,709.37
7.620	0.8025%	\$488,872.45	7.620	7.0114%	\$509,530.26
7.650	0.9152%	\$488,687.54	7.650	7.0078%	\$511,351.15
7.680	1.0494%	\$488,502.63	7.680	7.0042%	\$513,172.04
7.710	1.2091%	\$488,317.72	7.710	7.0006%	\$515,092.93
7.740	1.3992%	\$488,132.81	7.740	7.0000%	\$517,013.82
7.770	1.6256%	\$487,947.90	7.770	7.0000%	\$518,934.71
7.800	1.9060%	\$487,763.00	7.800	7.0000%	\$520,855.60
7.830	2.2496%	\$487,578.09	7.830	7.0000%	\$522,776.49
7.860	2.6672%	\$487,393.18	7.860	7.0000%	\$524,697.38
7.890	3.1710%	\$487,208.27	7.890	7.0000%	\$526,618.27
7.920	3.7754%	\$487,023.36	7.920	7.0000%	\$528,539.16
7.950	4.4951%	\$486,838.45	7.950	7.0000%	\$530,460.05
7.980	5.3458%	\$486,653.54	7.980	7.0000%	\$532,380.94
8.010	6.3449%	\$486,468.63	8.010	7.0000%	\$534,301.83
8.040	7.5009%	\$486,283.72	8.040	7.0000%	\$536,222.72
8.070	8.8348%	\$486,098.81	8.070	7.0000%	\$538,143.61
8.100	10.3690%	\$485,913.90	8.100	7.0000%	\$540,064.50
8.130	12.1275%	\$485,729.00	8.130	7.0000%	\$541,985.39
8.160	14.1457%	\$485,544.09	8.160	7.0000%	\$543,906.28
8.190	16.4610%	\$485,359.18	8.190	7.0000%	\$545,827.17
8.220	19.1238%	\$485,174.27	8.220	7.0000%	\$547,748.06
8.250	22.1963%	\$484,989.36	8.250	7.0000%	\$549,668.95
8.280	25.7414%	\$484,804.45	8.280	7.0000%	\$551,589.84
8.310	29.8340%	\$484,619.54	8.310	7.0000%	\$553,510.73
8.340	34.5513%	\$484,434.63	8.340	7.0000%	\$555,431.62
8.370	39.9821%	\$484,249.72	8.370	7.0000%	\$557,352.51
8.400	46.2266%	\$484,064.81	8.400	7.0000%	\$559,273.40
8.430	53.3862%	\$483,879.90	8.430	7.0000%	\$561,194.29
8.460	61.5634%	\$483,695.00	8.460	7.0000%	\$563,115.18
8.490	70.8719%	\$483,510.09	8.490	7.0000%	\$565,036.07
8.520	81.5370%	\$483,325.18	8.520	7.0000%	\$566,956.96
8.550	93.8003%	\$483,140.27	8.550	7.0000%	\$568,877.85
8.580	107.9159%	\$482,955.36	8.580	7.0000%	\$570,798.74
8.610	124.0479%	\$482,770.45	8.610	7.0000%	\$572,719.63
8.640	142.5715%	\$482,585.54	8.640	7.0000%	\$574,640.52
8.670	163.8740%	\$482,400.63	8.670	7.0000%	\$576,561.41
8.700	188.4310%	\$482,215.72	8.700	7.0000%	\$578,482.30
8.730	216.8289%	\$482,030.81	8.730	7.0000%	\$580,403.19
8.760	249.7637%	\$481,845.90	8.760	7.0000%	\$582,324.08
8.790	287.9338%	\$481,661.00	8.790	7.0000%	\$584,244.97
8.820	332.0488%	\$481,476.09	8.820	7.0000%	\$586,165.86
8.850	383.9314%	\$481,291.18	8.850	7.0000%	\$588,086.75
8.880	444.5113%	\$481,106.27	8.880	7.0000%	\$590,007.64
8.910	515.8383%	\$480,921.36	8.910	7.0000%	\$591,928.53
8.940	599.9847%	\$480,736.45	8.940	7.0000%	\$593,849.42
8.970	699.0540%	\$480,551.54	8.970	7.0000%	\$595,770.31
9.000	815.3499%	\$480,366.63	9.000	7.0000%	\$597,691.20
9.030	951.3764%	\$480,181.72	9.030	7.0000%	\$599,612.09
9.060	1109.6483%	\$479,996.81	9.060	7.0000%	\$601,532.98
9.090	1293.7707%	\$479,811.90	9.090	7.0000%	\$603,453.87
9.120	1508.4585%	\$479,627.00	9.120	7.0000%	\$605,374.76
9.150	1759.4467%	\$479,442.09	9.150	7.0000%	\$607,295.65
9.180	2042.5004%	\$479,257.18	9.180	7.0000%	\$609,216.54
9.210	2364.3747%	\$479,072.27	9.210	7.0000%	\$611,137.43
9.240	2731.8440%	\$478,887.36	9.240	7.0000%	\$613,058.32
9.270	3152.7846%	\$478,702.45	9.270	7.0000%	\$614,979.21
9.300	3635.1729%	\$478,517.54	9.300	7.0000%	\$616,900.10
9.330	4188.0054%	\$478,332.63	9.330	7.0000%	\$618,820.99
9.360	4821.2796%	\$478,147.72	9.360	7.0000%	\$620,741.88
9.390	5545.1033%	\$477,962.81	9.390	7.0000%	\$622,662.77
9.420	6370.5841%	\$477,777.90	9.420	7.0000%	\$624,583.66
9.450	7319.8286%	\$477,593.00	9.450	7.0000%	\$626,504.55
9.480	8405.0445%	\$477,408.09	9.480	7.0000%	\$628,425.44
9.510	9649.6386%	\$477,223.18	9.510	7.0000%	\$630,346.33
9.540	11078.1187%	\$477,038.27	9.540	7.0000%	\$632,267.22
9.570	12717.1920%	\$476,853.36	9.570	7.0000%	\$634,188.11
9.600	14603.4653%	\$476,668.45	9.600	7.0000%	\$636,109.00
9.630	16785.5451%	\$476,483.54	9.630	7.0000%	\$638,029.89
9.660	19313.1287%	\$476,298.63	9.660	7.0000%	\$640,950.78
9.690	22247.1138%	\$476,113.72	9.690	7.0000%	\$642,871.67
9.720	25650.4980%	\$475,928.81	9.720	7.0000%	\$644,792.56
9.750	29600.1801%	\$475,743.90	9.750	7.0000%	\$646,713.45
9.780	34284.0600%	\$475,559.00	9.780	7.0000%	\$648,634.34
9.810	40000.0367%	\$475,374.09	9.810	7.0000%	\$650,555.23
9.840	46968.1101%	\$475,189.18	9.840	7.0000%	\$652,476.12
9.870	55410.2793%	\$475,004.27	9.870	7.0000%	\$654,397.01
9.900	6				



02/29/2012

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
0.626	0.077%	\$534,098.72	0.635	7.069%	\$468,071.34
0.630	0.073%	\$539,891.63	0.650	7.062%	\$468,067.12
0.676	0.070%	\$539,070.48	0.676	7.068%	\$471,168.41
0.720	0.065%	\$542,764.50	0.720	7.061%	\$472,211.64
0.760	0.060%	\$544,057.48	0.760	7.048%	\$475,745.39
0.778	0.057%	\$546,850.23	0.778	7.046%	\$477,278.78
0.800	0.054%	\$547,042.50	0.800	7.041%	\$478,671.108
0.826	0.052%	\$548,238.81	0.826	7.036%	\$479,444.89
0.876	0.044%	\$553,076.64	0.860	7.039%	\$481,876.06
0.900	0.041%	\$554,098.97	0.900	7.028%	\$483,407.89
0.926	0.038%	\$554,998.95	0.926	7.026%	\$484,398.89
0.950	0.036%	\$555,178.85	0.950	7.025%	\$485,058.27
1.000	0.028%	\$561,094.17	0.976	7.019%	\$488,823.93
1.026	0.025%	\$563,752.35	1.026	7.012%	\$492,698.19
1.050	0.022%	\$565,340.69	1.050	6.999%	\$492,698.19
1.100	0.018%	\$569,114.25	1.100	7.006%	\$495,643.04
1.126	0.015%	\$570,900.87	1.126	6.999%	\$495,697.49
1.160	0.010%	\$572,698.48	1.160	6.992%	\$497,170.46
1.180	0.007%	\$572,698.48	1.180	6.992%	\$497,170.46
1.226	0.001%	\$579,048.05	1.200	6.980%	\$504,678.71
1.260	0.001%	\$579,048.05	1.226	6.987%	\$504,678.71
1.276	0.001%	\$581,610.18	1.276	6.984%	\$504,678.71
1.300	0.001%	\$581,610.18	1.300	6.979%	\$504,678.71
1.326	0.001%	\$585,178.62	1.326	6.974%	\$510,897.53
1.360	0.001%	\$586,938.21	1.360	6.973%	\$510,897.53
1.396	0.001%	\$589,794.39	1.396	6.972%	\$512,420.61
1.400	0.001%	\$590,323.18	1.400	6.969%	\$513,943.83
1.426	0.001%	\$591,610.18	1.426	6.968%	\$513,943.83
1.460	0.001%	\$594,688.46	1.460	6.968%	\$513,943.83
1.496	0.001%	\$594,688.46	1.496	6.968%	\$513,943.83
1.500	0.001%	\$594,688.46	1.500	6.968%	\$513,943.83
1.526	0.001%	\$597,658.12	1.526	6.964%	\$520,030.17
1.560	0.001%	\$597,658.12	1.560	6.964%	\$520,030.17
1.626	0.001%	\$604,793.94	1.626	6.962%	\$524,009.32
1.650	0.001%	\$604,793.94	1.650	6.962%	\$524,009.32
1.676	0.001%	\$604,793.94	1.676	6.962%	\$524,009.32
1.700	0.001%	\$604,793.94	1.700	6.962%	\$524,009.32
1.726	0.001%	\$604,793.94	1.726	6.962%	\$524,009.32
1.760	0.001%	\$604,793.94	1.760	6.962%	\$524,009.32
1.796	0.001%	\$604,793.94	1.796	6.962%	\$524,009.32
1.800	0.001%	\$604,793.94	1.800	6.962%	\$524,009.32
1.826	0.001%	\$604,793.94	1.826	6.962%	\$524,009.32
1.860	0.001%	\$604,793.94	1.860	6.962%	\$524,009.32
1.896	0.001%	\$604,793.94	1.896	6.962%	\$524,009.32
1.900	0.001%	\$604,793.94	1.900	6.962%	\$524,009.32
1.926	0.001%	\$604,793.94	1.926	6.962%	\$524,009.32
1.960	0.001%	\$604,793.94	1.960	6.962%	\$524,009.32
1.996	0.001%	\$604,793.94	1.996	6.962%	\$524,009.32
2.000	0.001%	\$604,793.94	2.000	6.962%	\$524,009.32
2.026	0.001%	\$604,793.94	2.026	6.962%	\$524,009.32
2.060	0.001%	\$604,793.94	2.060	6.962%	\$524,009.32
2.096	0.001%	\$604,793.94	2.096	6.962%	\$524,009.32
2.100	0.001%	\$604,793.94	2.100	6.962%	\$524,009.32
2.126	0.001%	\$604,793.94	2.126	6.962%	\$524,009.32
2.160	0.001%	\$604,793.94	2.160	6.962%	\$524,009.32
2.196	0.001%	\$604,793.94	2.196	6.962%	\$524,009.32
2.200	0.001%	\$604,793.94	2.200	6.962%	\$524,009.32
2.226	0.001%	\$604,793.94	2.226	6.962%	\$524,009.32
2.260	0.001%	\$604,793.94	2.260	6.962%	\$524,009.32
2.296	0.001%	\$604,793.94	2.296	6.962%	\$524,009.32
2.300	0.001%	\$604,793.94	2.300	6.962%	\$524,009.32
2.326	0.001%	\$604,793.94	2.326	6.962%	\$524,009.32
2.360	0.001%	\$604,793.94	2.360	6.962%	\$524,009.32
2.396	0.001%	\$604,793.94	2.396	6.962%	\$524,009.32
2.400	0.001%	\$604,793.94	2.400	6.962%	\$524,009.32
2.426	0.001%	\$604,793.94	2.426	6.962%	\$524,009.32
2.460	0.001%	\$604,793.94	2.460	6.962%	\$524,009.32
2.496	0.001%	\$604,793.94	2.496	6.962%	\$524,009.32
2.500	0.001%	\$604,793.94	2.500	6.962%	\$524,009.32
2.526	0.001%	\$604,793.94	2.526	6.962%	\$524,009.32
2.560	0.001%	\$604,793.94	2.560	6.962%	\$524,009.32
2.596	0.001%	\$604,793.94	2.596	6.962%	\$524,009.32
2.600	0.001%	\$604,793.94	2.600	6.962%	\$524,009.32
2.626	0.001%	\$604,793.94	2.626	6.962%	\$524,009.32
2.660	0.001%	\$604,793.94	2.660	6.962%	\$524,009.32
2.696	0.001%	\$604,793.94	2.696	6.962%	\$524,009.32
2.700	0.001%	\$604,793.94	2.700	6.962%	\$524,009.32
2.726	0.001%	\$604,793.94	2.726	6.962%	\$524,009.32
2.760	0.001%	\$604,793.94	2.760	6.962%	\$524,009.32
2.796	0.001%	\$604,793.94	2.796	6.962%	\$524,009.32
2.800	0.001%	\$604,793.94	2.800	6.962%	\$524,009.32
2.826	0.001%	\$604,793.94	2.826	6.962%	\$524,009.32
2.860	0.001%	\$604,793.94	2.860	6.962%	\$524,009.32
2.896	0.001%	\$604,793.94	2.896	6.962%	\$524,009.32
2.900	0.001%	\$604,793.94	2.900	6.962%	\$524,009.32
2.926	0.001%	\$604,793.94	2.926	6.962%	\$524,009.32
2.960	0.001%	\$604,793.94	2.960	6.962%	\$524,009.32
2.996	0.001%	\$604,793.94	2.996	6.962%	\$524,009.32
3.000	0.001%	\$604,793.94	3.000	6.962%	\$524,009.32
3.026	0.001%	\$604,793.94	3.026	6.962%	\$524,009.32
3.060	0.001%	\$604,793.94	3.060	6.962%	\$524,009.32
3.096	0.001%	\$604,793.94	3.096	6.962%	\$524,009.32
3.100	0.001%	\$604,793.94	3.100	6.962%	\$524,009.32
3.126	0.001%	\$604,793.94	3.126	6.962%	\$524,009.32
3.160	0.001%	\$604,793.94	3.160	6.962%	\$524,009.32
3.196	0.001%	\$604,793.94	3.196	6.962%	\$524,009.32
3.200	0.001%	\$604,793.94	3.200	6.962%	\$524,009.32
3.226	0.001%	\$604,793.94	3.226	6.962%	\$524,009.32
3.260	0.001%	\$604,793.94	3.260	6.962%	\$524,009.32
3.296	0.001%	\$604,793.94	3.296	6.962%	\$524,009.32
3.300	0.001%	\$604,793.94	3.300	6.962%	\$524,009.32
3.326	0.001%	\$604,793.94	3.326	6.962%	\$524,009.32
3.360	0.001%	\$604,793.94	3.360	6.962%	\$524,009.32
3.396	0.001%	\$604,793.94	3.396	6.962%	\$524,009.32
3.400	0.001%	\$604,793.94	3.400	6.962%	\$524,009.32
3.426	0.001%	\$604,793.94	3.426	6.962%	\$524,009.32
3.460	0.001%	\$604,793.94	3.460	6.962%	\$524,009.32
3.496	0.001%	\$604,793.94	3.496	6.962%	\$524,009.32
3.500	0.001%	\$604,793.94	3.500	6.962%	\$524,009.32
3.526	0.001%	\$604,793.94	3.526	6.962%	\$524,009.32
3.560	0.001%	\$604,793.94	3.560	6.962%	\$524,009.32
3.596	0.001%	\$604,793.94	3.596	6.962%	\$524,009.32
3.600	0.001%	\$604,793.94	3.600	6.962%	\$524,009.32
3.626	0.001%	\$604,793.94	3.626	6.962%	\$524,009.32
3.660	0.001%	\$604,793.94	3.660	6.962%	\$524,009.32
3.696	0.001%	\$604,793.94	3.696	6.962%	\$524,009.32
3.700	0.001%	\$604,793.94	3.700	6.962%	\$524,009.32
3.726	0.001%	\$604,793.94	3.726	6.962%	\$524,009.32
3.760	0.001%	\$604,793.94	3.760	6.962%	\$524,009.32
3.796	0.001%	\$604,793.94	3.796	6.962%	\$524,009.32
3.800	0.001%	\$604,793.94	3.800	6.962%	\$524,009.32
3.826	0.001%	\$604,793.94	3.826	6.962%	\$524,009.32
3.860	0.001%	\$604,793.94	3.860	6.962%	\$524,009.32
3.896	0.001%	\$604,793.94	3.896	6.962%	\$524,009.32
3.900	0.001%	\$604,793.94	3.900	6.962%	\$524,009.32
3.926	0.001%	\$604,793.94	3.926	6.962%	\$524,009.32
3.960	0.001%	\$604,793.94	3.960	6.962%	\$524,009.32
3.996	0.001%	\$604,793.94	3.996	6.962%	\$524,009.32
4.000	0.001%	\$604,793.94	4.000	6.962%	\$524,009.32
4.026	0.001%	\$604,793.94	4.026	6.962%	\$524,009.32
4.060	0.001%	\$604,793.94	4.060	6.962%	\$524,009.32
4.096	0.001%	\$604,793.94	4.096	6.962%	\$524,009.32
4.100	0.001%	\$604,793.94	4.100	6.962%	\$524,009.32
4.126	0.001%	\$604,793.94	4.126	6.962%	\$524,009.32
4.160	0.001%	\$604,793.94	4.160	6.962%	\$524,009.32
4.196	0.001%	\$604,793.94	4.196	6.962%	\$524,009.32
4.200	0.001%	\$604,793.94	4.200	6.962%	\$524,009.32
4.226	0.001%	\$604,793.94	4.226	6.962%	\$524,009.32
4.260	0.001%	\$604,793.94	4.260	6.962%	\$524,009.32
4.296	0.001%	\$604,793.94	4.296	6.962%	\$524,009.32
4.300	0.001%	\$604,793.94	4.300	6.962%	\$524,009.32
4.326	0.001%	\$604,793.94	4.326	6.962%	\$524,009.32
4.360	0.001%	\$604,793.94	4.360	6.962%	\$524,009.32
4.396	0.001%	\$604,793.94	4.396	6.962%	\$524,009.32
4.400	0.001%	\$604,793.94	4.400	6.962%	\$524,009.32
4.426	0.001%	\$604,793.94	4.426	6.962%	\$524,009.32
4.460	0.001%	\$604,793.94	4.460	6.962%	\$524,009.32
4.496	0.001%	\$604,793.94	4.496	6.962%	\$524,009.32
4.500	0.001%	\$604,793.94	4.500	6.962%	\$524,009.32
4.526	0.001%	\$604,793.94	4.526	6.962%	\$524,009.32
4.560	0.001%	\$604,793.94	4.560	6.962%	\$524,009.32
4.596	0.001%	\$604,793.94	4.596	6.962%	\$524,009.32
4.600	0.001%	\$604,793.94	4.600	6.962%	\$524,009.32
4.626	0.001%	\$604,793.94	4.626	6.962%	\$524,009.32
4.660	0.001%	\$604,793.94	4.660	6.962%	\$524,009.32
4.696	0.001%	\$604,793.94	4.696	6.962%	\$524,009.32
4.700	0.001%	\$604,793.94	4.700	6.962%	\$524,009.32
4.726	0.001%	\$604,793.94	4.726	6.962%	\$524,009.32
4.760	0.001%	\$604,793.94	4.760	6.962%	\$524,009.32
4.796	0.001%	\$604,793.94	4.796	6.962%	\$524,009.32
4.800	0.001%	\$604,793.94	4.800	6.962%	\$524,009.32
4.826	0.001%	\$604,793.94	4.826	6.962%	\$524,009.32
4.860	0.001%	\$604,793.94	4.860	6.962%	\$524,009.32
4.896	0.001%	\$604,793.94	4.896	6.962%	\$524,009.32
4.900	0.001%	\$604,793.94	4.900	6.962%	\$524,009.32
4.9					

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MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction in Millions	Percent	Fee	Cost of Construction in Millions	Percent	Fee
7.000	7.038%	\$516,974.00	7.000	6.920%	\$259,709.08
7.025	7.033%	\$507,611.05	7.025	6.917%	\$254,728.08
7.050	7.028%	\$498,248.10	7.050	6.914%	\$249,747.08
7.075	7.023%	\$488,885.15	7.075	6.912%	\$244,766.08
7.100	7.018%	\$479,522.20	7.100	6.909%	\$239,785.08
7.125	7.013%	\$470,159.25	7.125	6.906%	\$234,804.08
7.150	7.008%	\$460,796.30	7.150	6.903%	\$229,823.08
7.175	7.003%	\$451,433.35	7.175	6.900%	\$224,842.08
7.200	7.000%	\$442,070.40	7.200	6.897%	\$219,861.08
7.225	6.995%	\$432,707.45	7.225	6.894%	\$214,880.08
7.250	6.990%	\$423,344.50	7.250	6.891%	\$209,899.08
7.275	6.985%	\$413,981.55	7.275	6.888%	\$204,918.08
7.300	6.980%	\$404,618.60	7.300	6.885%	\$199,937.08
7.325	6.975%	\$395,255.65	7.325	6.882%	\$194,956.08
7.350	6.970%	\$385,892.70	7.350	6.879%	\$189,975.08
7.375	6.965%	\$376,529.75	7.375	6.876%	\$184,994.08
7.400	6.960%	\$367,166.80	7.400	6.873%	\$179,999.08
7.425	6.955%	\$357,803.85	7.425	6.870%	\$174,999.08
7.450	6.950%	\$348,440.90	7.450	6.867%	\$169,999.08
7.475	6.945%	\$339,077.95	7.475	6.864%	\$164,999.08
7.500	6.940%	\$329,715.00	7.500	6.861%	\$159,999.08
7.525	6.935%	\$320,352.05	7.525	6.858%	\$154,999.08
7.550	6.930%	\$310,989.10	7.550	6.855%	\$149,999.08
7.575	6.925%	\$301,626.15	7.575	6.852%	\$144,999.08
7.600	6.920%	\$292,263.20	7.600	6.849%	\$139,999.08
7.625	6.915%	\$282,900.25	7.625	6.846%	\$134,999.08
7.650	6.910%	\$273,537.30	7.650	6.843%	\$129,999.08
7.675	6.905%	\$264,174.35	7.675	6.840%	\$124,999.08
7.700	6.900%	\$254,811.40	7.700	6.837%	\$119,999.08
7.725	6.895%	\$245,448.45	7.725	6.834%	\$114,999.08
7.750	6.890%	\$236,085.50	7.750	6.831%	\$109,999.08
7.775	6.885%	\$226,722.55	7.775	6.828%	\$104,999.08
7.800	6.880%	\$217,359.60	7.800	6.825%	\$99,999.08
7.825	6.875%	\$207,996.65	7.825	6.822%	\$94,999.08
7.850	6.870%	\$198,633.70	7.850	6.819%	\$89,999.08
7.875	6.865%	\$189,270.75	7.875	6.816%	\$84,999.08
7.900	6.860%	\$179,907.80	7.900	6.813%	\$79,999.08
7.925	6.855%	\$170,544.85	7.925	6.810%	\$74,999.08
7.950	6.850%	\$161,181.90	7.950	6.807%	\$69,999.08
7.975	6.845%	\$151,818.95	7.975	6.804%	\$64,999.08
8.000	6.840%	\$142,456.00	8.000	6.801%	\$59,999.08
8.025	6.835%	\$133,093.05	8.025	6.798%	\$54,999.08
8.050	6.830%	\$123,730.10	8.050	6.795%	\$49,999.08
8.075	6.825%	\$114,367.15	8.075	6.792%	\$44,999.08
8.100	6.820%	\$104,999.20	8.100	6.789%	\$39,999.08
8.125	6.815%	\$95,631.25	8.125	6.786%	\$34,999.08
8.150	6.810%	\$86,263.30	8.150	6.783%	\$29,999.08
8.175	6.805%	\$76,895.35	8.175	6.780%	\$24,999.08
8.200	6.800%	\$67,527.40	8.200	6.777%	\$19,999.08
8.225	6.795%	\$58,159.45	8.225	6.774%	\$14,999.08
8.250	6.790%	\$48,791.50	8.250	6.771%	\$9,999.08
8.275	6.785%	\$39,423.55	8.275	6.768%	\$4,999.08
8.300	6.780%	\$30,055.60	8.300	6.765%	\$0,999.08
8.325	6.775%	\$20,687.65	8.325	6.762%	\$0,999.08
8.350	6.770%	\$11,319.70	8.350	6.759%	\$0,999.08
8.375	6.765%	\$1,951.75	8.375	6.756%	\$0,999.08
8.400	6.760%	\$0,583.80	8.400	6.753%	\$0,999.08
8.425	6.755%	\$0,215.85	8.425	6.750%	\$0,999.08
8.450	6.750%	\$0,847.90	8.450	6.747%	\$0,999.08
8.475	6.745%	\$0,480.95	8.475	6.744%	\$0,999.08
8.500	6.740%	\$0,113.00	8.500	6.741%	\$0,999.08
8.525	6.735%	\$0,745.05	8.525	6.738%	\$0,999.08
8.550	6.730%	\$0,377.10	8.550	6.735%	\$0,999.08
8.575	6.725%	\$0,109.15	8.575	6.732%	\$0,999.08
8.600	6.720%	\$0,741.20	8.600	6.729%	\$0,999.08
8.625	6.715%	\$0,373.25	8.625	6.726%	\$0,999.08
8.650	6.710%	\$0,105.30	8.650	6.723%	\$0,999.08
8.675	6.705%	\$0,737.35	8.675	6.720%	\$0,999.08
8.700	6.700%	\$0,369.40	8.700	6.717%	\$0,999.08
8.725	6.695%	\$0,101.45	8.725	6.714%	\$0,999.08
8.750	6.690%	\$0,733.50	8.750	6.711%	\$0,999.08
8.775	6.685%	\$0,365.55	8.775	6.708%	\$0,999.08
8.800	6.680%	\$0,107.60	8.800	6.705%	\$0,999.08
8.825	6.675%	\$0,739.65	8.825	6.702%	\$0,999.08
8.850	6.670%	\$0,371.70	8.850	6.699%	\$0,999.08
8.875	6.665%	\$0,103.75	8.875	6.696%	\$0,999.08
8.900	6.660%	\$0,735.80	8.900	6.693%	\$0,999.08
8.925	6.655%	\$0,367.85	8.925	6.690%	\$0,999.08
8.950	6.650%	\$0,109.90	8.950	6.687%	\$0,999.08
8.975	6.645%	\$0,741.95	8.975	6.684%	\$0,999.08
9.000	6.640%	\$0,374.00	9.000	6.681%	\$0,999.08

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02/28/2002

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction in Millions	Percent	Fee	Cost of Completion in Millions	Percent	Fee
8,075	7.823%	\$702,019.04	8,975	8.033%	\$810,409.61
8,002	7.820%	\$703,777.81	8,920	8.038%	\$812,098.82
0,025	7.818%	\$705,638.48	8,950	8.079%	\$814,698.32
0,050	7.816%	\$707,605.69	8,976	8.096%	\$816,998.78
8,075	7.814%	\$709,688.69	8,100	8.102%	\$818,988.99
8,122	7.809%	\$712,407.95	8,125	8.118%	\$821,087.13
8,175	7.807%	\$714,834.89	8,175	8.203%	\$822,693.97
8,200	7.805%	\$717,083.64	8,225	8.215%	\$824,098.49
8,250	7.800%	\$719,693.89	8,250	8.225%	\$825,072.63
8,276	7.799%	\$721,346.79	8,295	8.255%	\$826,668.24
8,300	7.798%	\$723,108.31	8,300	8.273%	\$828,003.56
8,325	7.794%	\$724,978.51	8,324	8.273%	\$829,098.58
8,350	7.789%	\$726,958.11	8,340	8.273%	\$830,193.59
8,400	7.789%	\$729,376.48	8,400	8.289%	\$831,417.89
8,425	7.789%	\$730,138.48	8,425	8.282%	\$832,638.02
8,450	7.789%	\$731,292.59	8,450	8.282%	\$833,858.17
8,475	7.789%	\$732,888.73	8,475	8.282%	\$835,078.32
8,500	7.789%	\$734,838.81	8,500	8.282%	\$836,298.47
8,525	7.779%	\$737,269.80	8,525	8.282%	\$837,518.62
8,550	7.779%	\$739,691.80	8,550	8.282%	\$838,738.77
8,575	7.779%	\$742,113.79	8,575	8.282%	\$839,958.92
8,600	7.779%	\$744,535.78	8,600	8.282%	\$841,179.07
8,625	7.770%	\$746,957.77	8,625	8.282%	\$842,399.22
8,650	7.768%	\$749,379.76	8,650	8.282%	\$843,619.37
8,675	7.768%	\$751,801.75	8,675	8.282%	\$844,839.52
8,700	7.768%	\$754,223.74	8,700	8.282%	\$846,059.67
8,725	7.768%	\$756,645.73	8,725	8.282%	\$847,279.82
8,750	7.768%	\$759,067.72	8,750	8.282%	\$848,499.97
8,775	7.768%	\$761,489.71	8,775	8.282%	\$849,720.12
8,800	7.768%	\$763,911.70	8,800	8.282%	\$850,940.27
8,825	7.768%	\$766,333.69	8,825	8.282%	\$852,160.42
8,850	7.768%	\$768,755.68	8,850	8.282%	\$853,380.57
8,875	7.768%	\$771,177.67	8,875	8.282%	\$854,600.72
8,900	7.768%	\$773,600.00	8,900	8.282%	\$855,820.87
8,925	7.768%	\$776,022.43	8,925	8.282%	\$857,041.02
8,950	7.768%	\$778,444.86	8,950	8.282%	\$858,261.17
8,975	7.768%	\$780,867.29	8,975	8.282%	\$859,481.32
9,000	7.768%	\$783,289.72	9,000	8.282%	\$860,701.47
9,025	7.768%	\$785,712.15	9,025	8.282%	\$861,921.62
9,050	7.768%	\$788,134.58	9,050	8.282%	\$863,141.77
9,075	7.768%	\$790,557.01	9,075	8.282%	\$864,361.92
9,100	7.768%	\$792,979.44	9,100	8.282%	\$865,582.07
9,125	7.768%	\$795,401.87	9,125	8.282%	\$866,802.22
9,150	7.768%	\$797,824.30	9,150	8.282%	\$868,022.37
9,175	7.768%	\$800,246.73	9,175	8.282%	\$869,242.52
9,200	7.768%	\$802,669.16	9,200	8.282%	\$870,462.67
9,225	7.768%	\$805,091.59	9,225	8.282%	\$871,682.82
9,250	7.768%	\$807,514.02	9,250	8.282%	\$872,902.97
9,275	7.768%	\$809,936.45	9,275	8.282%	\$874,123.12
9,300	7.768%	\$812,358.88	9,300	8.282%	\$875,343.27
9,325	7.768%	\$814,781.31	9,325	8.282%	\$876,563.42
9,350	7.768%	\$817,203.74	9,350	8.282%	\$877,783.57
9,375	7.768%	\$819,626.17	9,375	8.282%	\$879,003.72
9,400	7.768%	\$822,048.60	9,400	8.282%	\$880,223.87
9,425	7.768%	\$824,471.03	9,425	8.282%	\$881,444.02
9,450	7.768%	\$826,893.46	9,450	8.282%	\$882,664.17
9,475	7.768%	\$829,315.89	9,475	8.282%	\$883,884.32
9,500	7.768%	\$831,738.32	9,500	8.282%	\$885,104.47
9,525	7.768%	\$834,160.75	9,525	8.282%	\$886,324.62
9,550	7.768%	\$836,583.18	9,550	8.282%	\$887,544.77
9,575	7.768%	\$839,005.61	9,575	8.282%	\$888,764.92
9,600	7.768%	\$841,428.04	9,600	8.282%	\$889,985.07
9,625	7.768%	\$843,850.47	9,625	8.282%	\$891,205.22
9,650	7.768%	\$846,272.90	9,650	8.282%	\$892,425.37
9,675	7.768%	\$848,695.33	9,675	8.282%	\$893,645.52
9,700	7.768%	\$851,117.76	9,700	8.282%	\$894,865.67
9,725	7.768%	\$853,540.19	9,725	8.282%	\$896,085.82
9,750	7.768%	\$855,962.62	9,750	8.282%	\$897,305.97
9,775	7.768%	\$858,385.05	9,775	8.282%	\$898,526.12
9,800	7.768%	\$860,807.48	9,800	8.282%	\$899,746.27
9,825	7.768%	\$863,229.91	9,825	8.282%	\$900,966.42
9,850	7.768%	\$865,652.34	9,850	8.282%	\$902,186.57
9,875	7.768%	\$868,074.77	9,875	8.282%	\$903,406.72
9,900	7.768%	\$870,497.20	9,900	8.282%	\$904,626.87
9,925	7.768%	\$872,919.63	9,925	8.282%	\$905,847.02
9,950	7.768%	\$875,342.06	9,950	8.282%	\$907,067.17
9,975	7.768%	\$877,764.49	9,975	8.282%	\$908,287.32
10,000	7.768%	\$880,186.92	10,000	8.282%	\$909,507.47

8



Jimmie Schindewolf, P.E.  
General Manager

November 8, 2011

**BOARD OF DIRECTORS**  
Alan J. Rendell, *President*  
Lentox A. Sigler, *Vice President*  
Ron Graham, *Secretary*  
James D. Pulliam, *Treasurer*  
Kelly P. Fessler, *Asst. Secretary*

Samuel W. Kruse, Jr., P.E.  
Costello, Inc.  
9990 Richmond, Ste. 450 N  
Houston, Texas 77042

Re: Agreement for Professional Engineering Services

Dear Mr. Kruse:

Transmitted herewith please find one fully executed duplicate original of Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and Costello, Inc. This Agreement was approved by the Authority Board of Directors at the November 7, 2011 Board meeting. I am also sending one duplicate original to Tom Rolan (Authority Program Director), one to Robin Bobbitt (Authority General Counsel), and I am retaining two for the Authority contract file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

Jimmie Schindewolf, P.E.  
General Manager

JAS/lt

Attachment

Cc: Robin S. Bobbitt, Johnson Radcliff Petrov & Bobbitt PLLC - w/attachment  
Tom Rolan, P.E., AECOM Technical Services, Inc. - w/attachment  
Shawn Nandagan, P.E., NHCRWA  
Cyndi Plunkett, NHGRWA - w/attachment

AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

COSTELLO, INC.

THE STATE OF TEXAS     §  
                                  §  
COUNTY OF HARRIS     §

THIS AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and Costello, Inc. (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects;

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION I**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected in the detailed Scope of Services attached as Appendices A and A-1 and that are specifically identified in the Scope of Services that will accompany each Work Authorization issued by the General Manager.
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).
3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.

4. "Design Phase Agreed Estimate" shall mean the estimate of probable Construction Cost for a Construction Package developed at the completion of the approved Preliminary Engineering Phase, updated at the completion of the Design Phase and agreed to in writing by the General Manager and the Engineer.

5. "Preliminary Phase Agreed Estimate" shall mean the estimate of probable Construction Cost developed and agreed to in writing by the General Manager and the Engineer prior to commencing work on the Preliminary Engineering Phase of the Project. This agreed estimate applies only to the Preliminary Engineering Phase.

6. "Program Manager" shall mean the Authority's manager of its water supply program.

7. "Project" shall mean a design and/or construction project of the Authority authorized by the General Manager through the issuance of a Work Authorization.

## SECTION II

### CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Agreement, the General Manager of the Authority or his designee (hereinafter the "General Manager") may deliver to the Engineer written authorization (hereinafter known as "Work Authorization") in accordance with this Section for the performance of certain professional services with regard to specified Authority projects, which services the Engineer shall then perform in accordance with this Agreement. The General Manager may authorize the Engineer to provide all or any of the engineering and related services that are listed in **Appendices A and A-1**, attached hereto and made a part hereof.

The Authority shall have no obligation to pay for any services hereunder that have been rendered without the prior Work Authorization of the General Manager. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the Authority with progress reports at such times and in such manner as may be requested by the General Manager. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the General Manager as soon as possible.

## SECTION III

### TIME OF PERFORMANCE

Upon receipt of a Work Authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The Authority shall have no obligation to pay for a service performed after the required completion date for same, as set forth in its Work Authorization, except to the extent the

date for required completion is extended and continuation of such service is approved, by the General Manager.

#### SECTION IV

#### THE ENGINEERS' COMPENSATION

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blueprint drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof; costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Agreement are described as follows:

#### Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in **Appendix C**.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.

For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.



2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.

3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.

The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### SECTION V

##### TIME OF PAYMENT

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager", in a form suitable to the Authority, setting forth the services provided under this Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person performing the services and countersigned by his/her supervisor certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Agreement have been performed. Within

forty-five (45) days after the performance of all services provided for in this Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

#### SECTION VI TERMINATION

Either party may terminate this Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Agreement, less such payments on account of the charges as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Agreement shall be delivered to the Authority when and if this Agreement is terminated.

#### SECTION VII NOTICE

Any notice required to be given under the provisions of this Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Agreement, all notices shall be delivered to the following addresses:

To the Engineer: Costello, Inc.  
9990 Richmond, Suite 450 N  
Houston, Texas 77042

Attention: Samuel W. Kruse, Jr., P.E.

To the Authority: North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Attention: General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### SECTION VIII

#### SUCCESSORS AND ASSIGNS

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Agreement. Neither the Authority nor the Engineer shall assign, sublet, or transfer its or his/her interest in this Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

#### SECTION IX

#### PUBLIC CONTACT

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Agreement or any requested service shall be referred to the General Manager.

#### SECTION X

#### COMPLIANCE AND STANDARDS

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### SECTION XI

#### LICENSE REQUIREMENTS

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Agreement.

## SECTION XII

### INSURANCE AND INDEMNIFICATION

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Agreement and that of its subconsultants or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subconsultants (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.

## SECTION XIII

### OWNERSHIP OF PLANS, COPYRIGHT, AND OTHER INTELLECTUAL PROPERTY

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproductions, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Agreement.

Copies of all complete or partially complete information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Agreement, shall also be delivered by the Engineer to the General Manager when and if this Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

**SECTION XIV  
MODIFICATIONS**

This instrument contains the entire Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

**SECTION XV**

**AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Agreement and all questions as to the acceptable fulfillment of this Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Agreement.

**SECTION XVI**

**SEVERABILITY**

Any provision or part of this Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**SECTION XVII**

**MERGER**

The Parties agree that this Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Agreement.

[The remainder of this page intentionally left blank.]

APPENDIX A  
SCOPE OF SERVICES

(Castello, Inc.)

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see **Appendix A-1**) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnects, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.

## APPENDIX A-1

### SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES

(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

1. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternative water line alignments considering all relevant factors and prepare schematic layouts for each alternative route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review.
  - i. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.



2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues associated with such submittals within fourteen (14) calendar days of receipt of submittals from the Program Manager.

- e. Prepare revisions to the contract documents (*i.e.*, change orders) at no charge to the Authority when such change orders are required to make clarifications, correct discrepancies, errors or omissions to the contract documents.
- f. When requested by the Program Manager, evaluate contractor changes and cost proposals and recommend action to the Program Manager.
- g. Make monthly site visits to the Project site to observe the progress and quality of the executed work. Such site visits are to be coordinated with the Program Manager and a site visit report shall be submitted to the Program Manager after each such site visit, indicating observations related to the executed work.
- h. Attend final Project walkthrough.
- i. Prepare "record drawings" indicating changes to the contract drawings and showing significant changes made to the work during the construction of the Project. Such changes will be based upon marked-up "record drawings" furnished to the Engineer by the Program Manager and the construction contractor.

APPENDIX B  
HOURLY BILLING RATES  
(Costello, Inc.)

<u>Classification</u>	<u>Hourly Rates</u>
Senior Project Manager	\$190.00
Project Engineer	135.00
Engineer-In-Training	90.00
Senior Computer Technician	80.00
Clerical	70.00
Registered Surveyor	130.00
Survey Technician	75.00
Survey Crew, two men	120.00
Survey Crew, three men	150.00

Notes:

- (1) Additional classifications and subsequent year rates must be approved in writing by the General Manager.
- (2) Subconsultant costs and other miscellaneous expenses as approved by the General Manager will be paid at cost plus 10%.

APPENDIX C

CITY OF HOUSTON CURVES FOR MEDIAN COMPENSATION

(Castello, Inc.)



**CITY OF HOUSTON**  
Public Works and Engineering  
Department

Lee P. Brown  
Mayor


Jon C. Vanden Bosch, P.E.  
Director  
Public Works & Engineering  
Department  
P.O. Box 1000  
Houston, Texas 77241-1002  
T: 713.857.0037  
F: 713.857.0040  
www.ci.houston.tx.us  
www.pweng.houston.tx.us

July 15, 2002

Christina M. Lindsay, Executive Director  
Houston - CEC  
2020 North Loop West, Suite 240  
Houston, Texas 77018

Dear Ms. Lindsay:

PW&E has adopted the revised Curves of Median Compensation attached hereto. These curves and/or the associated tables will be used for determining the engineering fees as appropriate in this Department until further notice.  
Sincerely,

  
Jon C. Vanden Bosch, P.E.  
Director  
Department of Public Works and Engineering

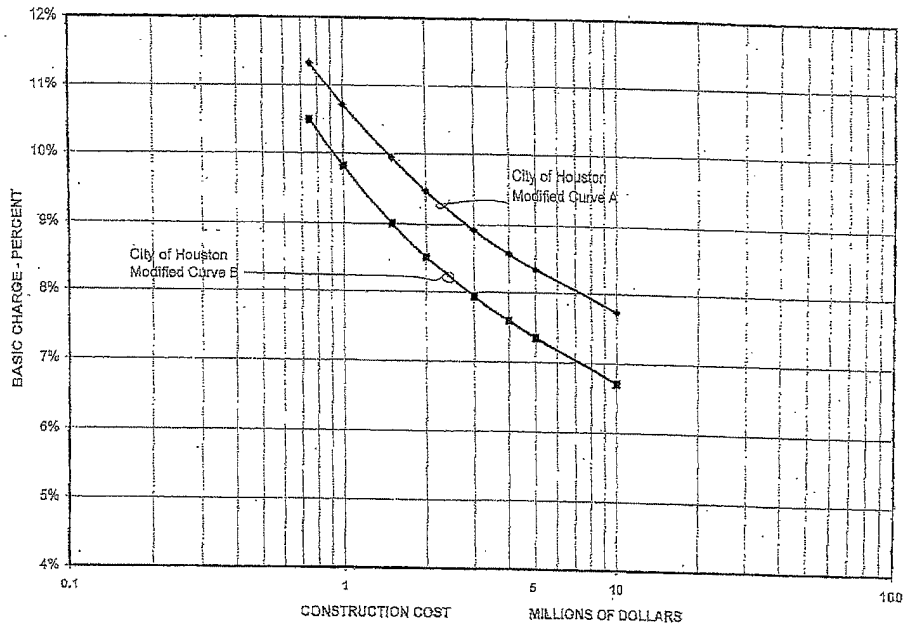
CC: Showil Nandagiri, P.E.  
Jeff Taylor  
Eric Dargan  
Rick Vacar - Aviation Department  
Monique Michilbra - Building Services Department

Council Members: Ernie Trano, Carol M. Galloway, Mark Gooding, Ada Edwards, Jodie Wiseman, Mark A. Ellis, Earl Keith, Gabriel Vazquez, Cary Alvarado,  
Arnold O. Parker, Gordon Dunn, Stanley Siskula-Jones M.D., Michael Berry, Carroll G. Robinson, Conductor, Sylvia R. Garcia

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
Curves of Median Compensation  
Curves A and B

*Erandaqiri*  
Showri Nandagiri, P.E.  
Deputy Director

*J. C. Bosch*  
Jon C. Vanden Bosch, P.E.  
Director



MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
0.750	1.347%	\$85,089.31	0.750	10.489%	\$78,668.84
0.775	1.4270%	\$87,339.27	0.775	10.407%	\$80,665.49
0.800	1.196%	\$89,568.35	0.800	10.329%	\$82,632.09
0.825	1.126%	\$91,788.87	0.825	10.254%	\$84,598.09
0.850	1.1059%	\$94,001.54	0.850	10.183%	\$86,566.88
0.875	10.395%	\$96,204.43	0.875	10.115%	\$88,505.86
0.900	10.393%	\$98,398.99	0.900	10.050%	\$90,448.37
0.925	10.874%	\$100,588.59	0.925	9.987%	\$92,378.74
0.950	10.877%	\$102,764.36	0.950	9.927%	\$94,303.28
0.975	10.763%	\$104,935.76	0.975	9.869%	\$96,220.27
1.000	10.710%	\$107,100.00	1.000	9.813%	\$98,130.00
1.025	10.689%	\$109,257.33	1.025	9.759%	\$100,032.71
1.050	10.610%	\$111,407.98	1.050	9.707%	\$101,928.54
1.075	10.563%	\$113,552.17	1.075	9.657%	\$103,818.01
1.100	10.517%	\$115,690.11	1.100	9.609%	\$105,701.05
1.125	10.473%	\$117,822.01	1.125	9.562%	\$107,577.98
1.150	10.430%	\$119,948.05	1.150	9.517%	\$109,448.91
1.175	10.389%	\$122,068.40	1.175	9.474%	\$111,314.10
1.200	10.348%	\$124,183.25	1.200	9.431%	\$113,173.70
1.225	10.310%	\$126,292.73	1.225	9.390%	\$115,027.86
1.250	10.272%	\$128,397.02	1.250	9.350%	\$116,876.75
1.275	10.235%	\$130,496.26	1.275	9.311%	\$118,720.52
1.300	10.199%	\$132,590.58	1.300	9.274%	\$120,559.29
1.325	10.163%	\$134,680.08	1.325	9.237%	\$122,393.22
1.350	10.131%	\$136,764.96	1.350	9.202%	\$124,222.42
1.375	10.098%	\$138,845.28	1.375	9.167%	\$126,049.02
1.400	10.065%	\$140,921.18	1.400	9.133%	\$127,867.13
1.425	10.035%	\$142,992.77	1.425	9.101%	\$129,682.87
1.450	10.004%	\$145,060.15	1.450	9.069%	\$131,494.36
1.475	9.974%	\$147,123.43	1.475	9.037%	\$133,301.66
1.500	9.949%	\$148,182.70	1.500	9.007%	\$135,104.92
1.525	9.917%	\$151,238.05	1.525	8.943%	\$136,904.20
1.550	9.880%	\$153,289.58	1.550	8.920%	\$138,699.61
1.575	9.836%	\$155,337.38	1.575	8.920%	\$140,491.22
1.600	9.811%	\$157,381.49	1.600	8.892%	\$142,279.13
1.625	9.785%	\$159,422.06	1.625	8.865%	\$144,063.42
1.650	9.761%	\$161,459.10	1.650	8.839%	\$145,844.16
1.675	9.737%	\$163,492.73	1.675	8.813%	\$147,621.43
1.700	9.713%	\$165,523.00	1.700	8.789%	\$149,395.31
1.725	9.689%	\$167,549.99	1.725	8.763%	\$151,165.65
1.750	9.667%	\$169,573.78	1.750	8.739%	\$152,933.14
1.775	9.644%	\$171,594.37	1.775	8.715%	\$154,697.23
1.800	9.623%	\$173,611.90	1.800	8.692%	\$156,458.18
1.825	9.602%	\$175,626.39	1.825	8.669%	\$158,216.07
1.850	9.581%	\$177,637.90	1.850	8.647%	\$159,970.95
1.875	9.561%	\$179,645.50	1.875	8.625%	\$161,722.87
1.900	9.541%	\$181,652.24	1.900	8.604%	\$163,471.88

6/25/2002

MODIFIED CURVE A

Cost of Construction In Millions			Cost of Construction In Millions		
	Percent	Fee		Percent	Fee
1.925	8.541%	\$183,665.17	1.925	8.583%	\$165,218.06
1.950	8.521%	\$185,655.33	1.950	8.582%	\$166,961.44
1.975	8.501%	\$187,652.79	1.975	8.582%	\$168,702.17
2.000	8.482%	\$189,647.58	2.000	8.582%	\$170,440.01
2.025	8.464%	\$191,639.76	2.025	8.583%	\$172,176.50
2.050	8.445%	\$193,629.37	2.050	8.483%	\$173,907.99
2.075	8.427%	\$195,616.46	2.075	8.484%	\$175,638.12
2.100	8.410%	\$197,601.06	2.100	8.446%	\$177,366.74
2.125	8.392%	\$199,583.21	2.125	8.428%	\$179,090.89
2.150	8.375%	\$201,562.97	2.150	8.410%	\$180,813.60
2.175	8.358%	\$203,540.36	2.175	8.392%	\$182,533.92
2.200	8.342%	\$205,516.43	2.200	8.375%	\$184,251.88
2.225	8.325%	\$207,489.21	2.225	8.358%	\$185,967.54
2.250	8.309%	\$209,458.74	2.250	8.341%	\$187,680.91
2.275	8.293%	\$211,427.05	2.275	8.325%	\$189,392.03
2.300	8.278%	\$213,393.18	2.300	8.309%	\$191,100.95
2.325	8.263%	\$215,357.16	2.325	8.293%	\$192,807.70
2.350	8.248%	\$217,319.03	2.350	8.277%	\$194,512.30
2.375	8.233%	\$219,278.81	2.375	8.262%	\$196,214.78
2.400	8.218%	\$221,236.53	2.400	8.248%	\$197,915.19
2.425	8.204%	\$223,192.23	2.425	8.231%	\$199,613.55
2.450	8.190%	\$225,145.94	2.450	8.217%	\$201,309.90
2.475	8.176%	\$227,097.59	2.475	8.202%	\$203,004.25
2.500	8.162%	\$229,047.49	2.500	8.188%	\$204,696.63
2.525	8.148%	\$230,995.37	2.525	8.174%	\$206,387.09
2.550	8.135%	\$232,941.37	2.550	8.160%	\$208,075.63
2.575	8.122%	\$234,885.52	2.575	8.146%	\$209,762.30
2.600	8.109%	\$236,827.83	2.600	8.133%	\$211,447.10
2.625	8.096%	\$238,768.33	2.625	8.119%	\$213,130.08
2.650	8.083%	\$240,707.05	2.650	8.106%	\$214,811.28
2.675	8.071%	\$242,644.01	2.675	8.093%	\$216,490.64
2.700	8.058%	\$244,579.23	2.700	8.080%	\$218,168.27
2.725	8.046%	\$246,512.73	2.725	8.066%	\$219,844.16
2.750	8.034%	\$248,444.54	2.750	8.053%	\$221,518.54
2.775	8.023%	\$250,374.59	2.775	8.043%	\$223,190.83
2.800	8.011%	\$252,303.17	2.800	8.031%	\$224,861.66
2.825	8.000%	\$254,230.02	2.825	8.019%	\$226,530.82
2.850	8.989%	\$256,155.27	2.850	8.007%	\$228,198.36
2.875	8.977%	\$258,078.93	2.875	7.995%	\$229,864.28
2.900	8.966%	\$260,001.02	2.900	7.984%	\$231,528.63
2.925	8.955%	\$261,921.56	2.925	7.972%	\$233,191.40
2.950	8.944%	\$263,840.67	2.950	7.961%	\$234,852.62
2.975	8.933%	\$265,758.06	2.975	7.950%	\$236,512.30
3.000	8.922%	\$267,674.05	3.000	7.939%	\$238,170.48
3.025	8.912%	\$269,588.57	3.025	7.928%	\$239,827.15
3.050	8.902%	\$271,501.62	3.050	7.917%	\$241,482.39
3.075	8.891%	\$273,413.23	3.075	7.907%	\$243,136.08



MODIFIED CURVE A

MODIFIED CURVE B

Cost of Construction In Millions			Cost of Construction In Millions		
	Percent	Fee		Percent	Fee
3,100	8.881%	\$275,323.41	3,100	7.898%	\$244,788.37
3,125	8.871%	\$277,232.18	3,125	7.898%	\$246,430.23
3,150	8.862%	\$279,139.55	3,150	7.876%	\$248,088.68
3,175	8.842%	\$281,046.64	3,175	7.866%	\$249,736.73
3,200	8.842%	\$282,950.17	3,200	7.865%	\$251,389.40
3,225	8.833%	\$284,853.44	3,225	7.846%	\$253,028.70
3,250	8.823%	\$286,756.38	3,250	7.839%	\$254,672.85
3,275	8.814%	\$288,658.00	3,275	7.828%	\$256,313.28
3,300	8.805%	\$290,559.31	3,300	7.817%	\$257,953.93
3,325	8.796%	\$292,463.33	3,325	7.807%	\$259,595.93
3,350	8.787%	\$294,360.07	3,350	7.798%	\$261,235.21
3,375	8.778%	\$296,245.66	3,375	7.789%	\$262,872.62
3,400	8.769%	\$298,135.77	3,400	7.780%	\$264,508.76
3,425	8.760%	\$300,032.75	3,425	7.771%	\$266,143.64
3,450	8.751%	\$301,924.50	3,450	7.762%	\$267,777.28
3,475	8.743%	\$303,816.04	3,475	7.753%	\$269,409.89
3,500	8.734%	\$305,704.38	3,500	7.744%	\$271,040.89
3,525	8.726%	\$307,592.53	3,525	7.735%	\$272,670.88
3,550	8.718%	\$309,479.60	3,550	7.727%	\$274,299.67
3,575	8.710%	\$311,365.30	3,575	7.718%	\$275,927.29
3,600	8.701%	\$313,249.95	3,600	7.709%	\$277,553.74
3,625	8.693%	\$315,133.45	3,625	7.701%	\$279,179.03
3,650	8.685%	\$317,015.82	3,650	7.693%	\$280,803.18
3,675	8.677%	\$318,897.07	3,675	7.685%	\$282,428.19
3,700	8.669%	\$320,777.21	3,700	7.677%	\$284,048.07
3,725	8.662%	\$322,656.25	3,725	7.669%	\$285,668.84
3,750	8.654%	\$324,534.20	3,750	7.661%	\$287,288.51
3,775	8.647%	\$326,411.07	3,775	7.653%	\$288,907.09
3,800	8.639%	\$328,286.87	3,800	7.646%	\$290,524.38
3,825	8.632%	\$330,161.61	3,825	7.639%	\$292,141.00
3,850	8.624%	\$332,036.30	3,850	7.630%	\$293,756.36
3,875	8.617%	\$333,907.95	3,875	7.622%	\$295,370.88
3,900	8.610%	\$335,779.57	3,900	7.615%	\$296,983.93
3,925	8.603%	\$337,650.17	3,925	7.609%	\$298,598.16
3,950	8.596%	\$339,519.75	3,950	7.600%	\$300,207.36
3,975	8.588%	\$341,388.33	3,975	7.593%	\$301,817.65
4,000	8.581%	\$343,255.92	4,000	7.589%	\$303,428.75
4,025	8.574%	\$345,122.62	4,025	7.579%	\$305,034.91
4,050	8.568%	\$346,988.16	4,050	7.571%	\$306,642.11
4,075	8.561%	\$348,852.81	4,075	7.564%	\$308,248.32
4,100	8.554%	\$350,716.50	4,100	7.557%	\$309,853.56
4,125	8.547%	\$352,579.25	4,125	7.550%	\$311,457.84
4,150	8.541%	\$354,441.05	4,150	7.544%	\$313,061.17
4,175	8.534%	\$356,301.91	4,175	7.537%	\$314,663.69
4,200	8.528%	\$358,161.85	4,200	7.530%	\$316,264.99
4,225	8.521%	\$360,020.87	4,225	7.523%	\$317,865.49
4,250	8.515%	\$361,878.98	4,250	7.517%	\$319,465.08

MODIFIED CURVE A

Cost of Construction			Cost of Construction		
In Millions	Percent	Fee	In Millions	Percent	Fee
4,275	8.508%	\$383,736.18	4,275	7.510%	\$321,083.75
4,300	8.502%	\$365,692.48	4,300	7.504%	\$322,681.51
4,325	8.496%	\$367,447.90	4,325	7.497%	\$324,288.37
4,350	8.490%	\$369,302.43	4,350	7.491%	\$325,894.33
4,375	8.484%	\$371,168.09	4,375	7.485%	\$327,499.41
4,400	8.477%	\$373,008.88	4,400	7.478%	\$329,104.51
4,425	8.471%	\$374,900.80	4,425	7.472%	\$330,698.94
4,450	8.465%	\$376,711.88	4,450	7.466%	\$332,293.41
4,475	8.459%	\$378,562.10	4,475	7.460%	\$333,821.01
4,500	8.454%	\$380,411.49	4,500	7.454%	\$335,411.77
4,525	8.448%	\$382,280.04	4,525	7.448%	\$337,001.68
4,550	8.442%	\$384,107.76	4,550	7.442%	\$338,680.75
4,575	8.436%	\$385,954.66	4,575	7.436%	\$340,178.99
4,600	8.430%	\$387,800.75	4,600	7.430%	\$341,766.41
4,625	8.425%	\$389,646.03	4,625	7.424%	\$343,353.00
4,650	8.419%	\$391,490.50	4,650	7.418%	\$344,838.79
4,675	8.414%	\$393,334.18	4,675	7.412%	\$346,323.77
4,700	8.408%	\$395,177.07	4,700	7.407%	\$348,107.94
4,725	8.403%	\$397,019.17	4,725	7.401%	\$349,691.33
4,750	8.397%	\$398,860.60	4,750	7.396%	\$351,273.92
4,775	8.392%	\$400,701.05	4,775	7.390%	\$352,858.74
4,800	8.386%	\$402,540.83	4,800	7.384%	\$354,438.77
4,825	8.381%	\$404,379.88	4,825	7.379%	\$356,017.09
4,850	8.376%	\$406,218.13	4,850	7.373%	\$357,596.54
4,875	8.370%	\$408,056.64	4,875	7.368%	\$359,179.28
4,900	8.365%	\$409,892.42	4,900	7.362%	\$360,759.26
4,925	8.360%	\$411,728.45	4,925	7.357%	\$362,339.50
4,950	8.355%	\$413,563.75	4,950	7.352%	\$363,908.99
4,975	8.350%	\$415,398.32	4,975	7.346%	\$365,482.75
5,000	8.346%	\$417,232.17	5,000	7.341%	\$367,057.77
5,025	8.340%	\$419,066.29	5,025	7.336%	\$368,632.07
5,050	8.336%	\$420,897.71	5,050	7.331%	\$370,206.64
5,075	8.330%	\$422,729.42	5,075	7.326%	\$371,778.50
5,100	8.329%	\$424,560.42	5,100	7.321%	\$373,350.64
5,125	8.329%	\$426,390.72	5,125	7.316%	\$374,922.07
5,150	8.315%	\$428,220.33	5,150	7.311%	\$376,492.81
5,175	8.310%	\$430,049.25	5,175	7.306%	\$378,062.84
5,200	8.305%	\$431,877.49	5,200	7.301%	\$379,632.18
5,225	8.301%	\$433,705.06	5,225	7.296%	\$381,200.83
5,250	8.298%	\$435,531.93	5,250	7.291%	\$382,768.80
5,275	8.291%	\$437,358.14	5,275	7.286%	\$384,336.09
5,300	8.286%	\$439,183.69	5,300	7.281%	\$385,902.71
5,325	8.282%	\$441,008.57	5,325	7.275%	\$387,469.66
5,350	8.277%	\$442,832.80	5,350	7.270%	\$389,033.94
5,375	8.273%	\$444,656.37	5,375	7.267%	\$390,598.59
5,400	8.268%	\$446,479.30	5,400	7.262%	\$392,162.82
5,425	8.264%	\$448,301.68	5,425	7.258%	\$393,726.83

6/25/2002

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
5.450	8.2559%	\$460,123.22	5.450	7.2653%	\$305,298.49
5.475	8.2559%	\$461,944.22	5.475	7.2448%	\$306,090.51
5.500	8.2590%	\$463,764.80	5.500	7.2444%	\$306,411.88
5.525	8.2469%	\$465,584.34	5.525	7.2393%	\$306,972.53
5.550	8.2422%	\$467,403.47	5.550	7.2359%	\$307,532.74
5.575	8.2372%	\$469,221.97	5.575	7.2306%	\$308,092.22
5.600	8.2333%	\$471,039.86	5.600	7.2261%	\$308,651.06
5.625	8.2293%	\$472,857.13	5.625	7.2211%	\$309,209.32
5.650	8.2244%	\$474,673.80	5.650	7.2171%	\$309,766.94
5.675	8.2204%	\$476,489.86	5.675	7.2133%	\$310,323.95
5.700	8.2164%	\$478,305.33	5.700	7.2098%	\$310,880.35
5.725	8.2124%	\$479,120.19	5.725	7.2064%	\$311,436.15
5.750	8.2084%	\$479,934.47	5.750	7.2030%	\$311,991.35
5.800	8.2039%	\$479,748.15	5.800	7.1996%	\$312,545.95
5.825	8.1999%	\$479,561.25	5.825	7.1961%	\$313,099.96
5.850	8.1959%	\$479,373.77	5.850	7.1927%	\$313,653.38
5.875	8.1919%	\$479,185.71	5.875	7.1893%	\$314,206.21
5.900	8.1879%	\$478,997.07	5.900	7.1859%	\$314,758.46
5.925	8.1839%	\$478,807.86	5.925	7.1825%	\$315,310.13
5.950	8.1799%	\$478,618.09	5.950	7.1791%	\$315,861.23
5.975	8.1759%	\$478,427.75	5.975	7.1757%	\$316,411.73
6.000	8.1719%	\$478,236.65	6.000	7.1723%	\$316,961.71
6.025	8.1679%	\$478,045.39	6.025	7.1689%	\$317,511.10
6.050	8.1639%	\$477,853.37	6.050	7.1655%	\$318,060.92
6.075	8.1599%	\$477,661.69	6.075	7.1621%	\$318,610.19
6.100	8.1559%	\$477,470.04	6.100	7.1587%	\$319,158.91
6.125	8.1444%	\$477,278.84	6.125	7.1553%	\$319,707.07
6.150	8.1444%	\$477,087.10	6.150	7.1519%	\$320,254.68
6.175	8.1414%	\$476,895.82	6.175	7.1485%	\$320,801.76
6.200	8.1374%	\$476,704.02	6.200	7.1451%	\$321,348.26
6.225	8.1334%	\$476,512.69	6.225	7.1417%	\$321,894.70
6.250	8.1304%	\$476,321.84	6.250	7.1383%	\$322,441.08
6.275	8.1264%	\$476,131.44	6.275	7.1349%	\$322,987.42
6.300	8.1224%	\$475,941.53	6.300	7.1315%	\$323,533.72
6.325	8.1184%	\$475,752.17	6.325	7.1281%	\$324,079.98
6.350	8.1144%	\$475,563.31	6.350	7.1247%	\$324,626.20
6.375	8.1104%	\$475,374.91	6.375	7.1213%	\$325,172.38
6.400	8.1064%	\$475,187.03	6.400	7.1179%	\$325,718.52
6.425	8.1024%	\$475,000.63	6.425	7.1145%	\$326,264.62
6.450	8.0984%	\$474,814.77	6.450	7.1111%	\$326,810.68
6.475	8.0944%	\$474,629.51	6.475	7.1077%	\$327,356.70
6.500	8.0904%	\$474,444.80	6.500	7.1043%	\$327,902.68
6.525	8.0864%	\$474,260.69	6.525	7.1009%	\$328,448.62
6.550	8.0824%	\$474,077.13	6.550	7.0975%	\$328,994.52
6.575	8.0784%	\$473,894.16	6.575	7.0941%	\$329,540.38
6.600	8.0744%	\$473,711.73	6.600	7.0907%	\$330,086.20

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee
6.825	8.077%	\$535,086.72
6.860	8.073%	\$536,891.83
6.875	8.070%	\$538,678.46
6.700	8.057%	\$540,470.61
6.725	8.063%	\$542,284.28
6.750	8.069%	\$544,057.48
6.775	8.057%	\$547,680.23
6.800	8.064%	\$547,682.50
6.825	8.060%	\$549,484.31
6.850	8.047%	\$551,223.63
6.875	8.044%	\$554,016.34
6.900	8.041%	\$554,808.97
6.925	8.038%	\$556,596.36
6.950	8.034%	\$559,386.47
6.975	8.031%	\$560,176.56
7.000	8.028%	\$561,984.17
7.025	8.025%	\$563,792.36
7.050	8.022%	\$565,540.09
7.075	8.019%	\$567,327.39
7.100	8.016%	\$569,114.25
7.125	8.013%	\$570,900.87
7.150	8.010%	\$572,686.66
7.175	8.007%	\$574,472.22
7.200	8.004%	\$576,257.35
7.225	8.001%	\$578,042.05
7.250	7.998%	\$579,826.32
7.275	7.995%	\$581,610.18
7.300	7.992%	\$583,393.61
7.325	7.989%	\$585,176.62
7.350	7.986%	\$586,959.21
7.375	7.983%	\$588,741.39
7.400	7.980%	\$590,523.16
7.425	7.977%	\$592,304.51
7.450	7.974%	\$594,085.46
7.475	7.971%	\$595,865.99
7.500	7.968%	\$597,646.12
7.525	7.965%	\$599,425.85
7.550	7.963%	\$601,205.18
7.575	7.960%	\$602,984.11
7.600	7.957%	\$604,762.64
7.625	7.955%	\$606,540.78
7.650	7.952%	\$608,318.52
7.675	7.949%	\$610,095.87
7.700	7.946%	\$611,872.83
7.725	7.944%	\$613,649.40
7.750	7.941%	\$615,425.58
7.775	7.938%	\$617,201.38

MODIFIED CURVE B

Cost of Construction In Millions	Percent	Fee
6.825	7.065%	\$488,071.34
6.850	7.062%	\$489,807.12
6.875	7.058%	\$471,442.41
6.700	7.055%	\$472,677.21
6.725	7.051%	\$474,214.34
6.750	7.048%	\$476,745.39
6.775	7.045%	\$477,278.76
6.800	7.041%	\$478,811.66
6.825	7.038%	\$480,344.06
6.850	7.035%	\$481,876.06
6.875	7.031%	\$483,407.65
6.900	7.028%	\$484,938.58
6.925	7.025%	\$486,469.15
6.950	7.022%	\$487,999.27
6.975	7.018%	\$489,528.93
7.000	7.015%	\$491,058.13
7.025	7.012%	\$492,586.88
7.050	7.009%	\$494,116.18
7.075	7.006%	\$495,643.04
7.100	7.002%	\$497,170.46
7.125	6.999%	\$498,697.43
7.150	6.996%	\$500,223.66
7.175	6.993%	\$501,750.05
7.200	6.990%	\$503,276.71
7.225	6.987%	\$504,803.93
7.250	6.984%	\$506,331.72
7.275	6.981%	\$507,859.08
7.300	6.978%	\$509,386.02
7.325	6.975%	\$510,912.53
7.350	6.972%	\$512,439.61
7.375	6.969%	\$513,966.28
7.400	6.966%	\$515,492.53
7.425	6.963%	\$516,997.36
7.450	6.960%	\$518,502.77
7.475	6.957%	\$520,029.77
7.500	6.954%	\$521,556.36
7.525	6.951%	\$523,079.34
7.550	6.948%	\$524,598.32
7.575	6.945%	\$526,109.68
7.600	6.942%	\$527,622.85
7.625	6.940%	\$529,137.21
7.650	6.937%	\$530,653.36
7.675	6.934%	\$532,163.14
7.700	6.931%	\$533,675.52
7.725	6.928%	\$535,187.49
7.750	6.926%	\$536,704.08
7.775	6.923%	\$538,220.27

8/28/2002

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
7.800	7.3983%	\$618,976.80	7.800	6.920%	\$339,786.08
7.826	7.3633%	\$620,761.93	7.826	6.917%	\$341,281.49
7.850	7.330%	\$622,526.49	7.850	6.915%	\$342,798.63
7.875	7.298%	\$624,300.76	7.875	6.912%	\$344,311.18
7.900	7.225%	\$626,074.88	7.900	6.909%	\$345,826.45
7.925	7.222%	\$627,848.19	7.925	6.906%	\$347,339.33
7.950	7.220%	\$629,621.35	7.950	6.904%	\$348,852.04
7.975	7.217%	\$631,394.13	7.975	6.901%	\$350,365.98
8.000	7.216%	\$633,166.54	8.000	6.898%	\$351,877.74
8.025	7.212%	\$634,938.59	8.025	6.896%	\$353,391.12
8.050	7.209%	\$636,710.27	8.050	6.893%	\$354,903.14
8.075	7.207%	\$638,481.68	8.075	6.891%	\$356,414.79
8.100	7.204%	\$640,252.54	8.100	6.889%	\$357,926.08
8.125	7.202%	\$642,023.13	8.125	6.887%	\$359,436.97
8.150	7.199%	\$643,793.36	8.150	6.885%	\$360,947.51
8.175	7.197%	\$645,563.23	8.175	6.880%	\$362,457.89
8.200	7.194%	\$647,332.75	8.200	6.877%	\$363,967.51
8.225	7.192%	\$649,101.81	8.225	6.875%	\$365,476.97
8.250	7.189%	\$650,870.72	8.250	6.873%	\$366,986.07
8.275	7.187%	\$652,639.16	8.275	6.870%	\$368,494.82
8.300	7.184%	\$654,407.29	8.300	6.868%	\$369,999.20
8.325	7.182%	\$656,175.06	8.325	6.866%	\$371,511.24
8.350	7.180%	\$657,942.48	8.350	6.863%	\$373,020.92
8.375	7.177%	\$659,709.52	8.375	6.861%	\$374,528.26
8.400	7.175%	\$661,476.22	8.400	6.859%	\$376,033.23
8.425	7.172%	\$663,242.62	8.425	6.857%	\$377,536.86
8.450	7.170%	\$665,008.68	8.450	6.855%	\$379,039.15
8.475	7.168%	\$666,774.33	8.475	6.853%	\$380,539.03
8.500	7.166%	\$668,539.71	8.500	6.851%	\$382,037.89
8.525	7.164%	\$670,304.73	8.525	6.849%	\$383,535.94
8.550	7.163%	\$672,069.42	8.550	6.847%	\$385,032.91
8.575	7.161%	\$673,833.77	8.575	6.845%	\$386,528.43
8.600	7.159%	\$675,597.79	8.600	6.843%	\$388,022.67
8.625	7.158%	\$677,361.47	8.625	6.841%	\$389,515.17
8.650	7.156%	\$679,124.83	8.650	6.839%	\$391,006.14
8.675	7.154%	\$680,887.86	8.675	6.837%	\$392,495.37
8.700	7.152%	\$682,650.56	8.700	6.835%	\$393,982.87
8.725	7.150%	\$684,412.93	8.725	6.832%	\$395,468.84
8.750	7.148%	\$686,174.98	8.750	6.829%	\$396,953.07
8.775	7.146%	\$687,936.71	8.775	6.827%	\$398,435.98
8.800	7.144%	\$689,698.11	8.800	6.825%	\$399,917.97
8.825	7.142%	\$691,459.20	8.825	6.823%	\$401,399.83
8.850	7.140%	\$693,219.98	8.850	6.821%	\$402,881.37
8.875	7.138%	\$694,980.41	8.875	6.819%	\$404,362.66
8.900	7.136%	\$696,740.54	8.900	6.817%	\$405,843.63
8.925	7.134%	\$698,500.35	8.925	6.815%	\$407,324.63
8.950	7.132%	\$700,260.86	8.950	6.813%	\$408,805.28

6/25/2002

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee
8.876	7.822%	\$702,010.04
9.000	7.820%	\$703,777.91
9.026	7.818%	\$705,536.48
9.050	7.815%	\$707,294.73
9.075	7.813%	\$709,052.68
9.100	7.811%	\$710,810.32
9.126	7.809%	\$712,567.65
9.150	7.807%	\$714,324.68
9.175	7.805%	\$716,081.41
9.200	7.803%	\$717,837.84
9.225	7.800%	\$719,593.96
9.250	7.798%	\$721,349.79
9.275	7.796%	\$723,105.31
9.300	7.794%	\$724,860.54
9.325	7.792%	\$726,615.47
9.350	7.790%	\$728,370.11
9.375	7.788%	\$730,124.46
9.400	7.786%	\$731,878.50
9.425	7.784%	\$733,632.26
9.450	7.782%	\$735,385.73
9.475	7.780%	\$737,138.91
9.500	7.778%	\$738,891.80
9.525	7.776%	\$740,644.41
9.550	7.774%	\$742,396.72
9.575	7.772%	\$744,148.79
9.600	7.770%	\$745,900.50
9.625	7.768%	\$747,651.97
9.650	7.766%	\$749,403.15
9.675	7.764%	\$751,154.08
9.700	7.762%	\$752,904.69
9.725	7.760%	\$754,655.02
9.750	7.758%	\$756,405.09
9.775	7.756%	\$758,154.89
9.800	7.754%	\$759,904.39
9.825	7.752%	\$761,653.63
9.850	7.750%	\$763,402.60
9.875	7.748%	\$765,151.29
9.900	7.746%	\$766,899.71
9.925	7.744%	\$768,647.86
9.950	7.743%	\$770,395.74
9.975	7.741%	\$772,143.36
10.000	7.739%	\$773,890.70

MODIFIED CURVE B

Cost of Construction In Millions	Percent	Fee
8.876	6.803%	\$510,800.01
9.000	6.801%	\$512,099.62
9.026	6.799%	\$513,399.32
9.050	6.797%	\$514,699.71
9.075	6.794%	\$515,994.78
9.100	6.792%	\$517,289.54
9.126	6.790%	\$518,589.99
9.150	6.788%	\$519,887.13
9.175	6.786%	\$521,181.97
9.200	6.783%	\$522,478.49
9.225	6.781%	\$523,776.71
9.250	6.779%	\$525,072.63
9.275	6.777%	\$526,368.24
9.300	6.775%	\$527,664.56
9.325	6.773%	\$528,960.59
9.350	6.771%	\$530,256.28
9.375	6.769%	\$531,551.69
9.400	6.768%	\$532,847.89
9.425	6.766%	\$534,143.80
9.450	6.764%	\$535,439.42
9.475	6.762%	\$536,734.74
9.500	6.760%	\$538,029.77
9.525	6.758%	\$539,324.51
9.550	6.756%	\$540,618.95
9.575	6.754%	\$541,913.09
9.600	6.752%	\$543,206.92
9.625	6.750%	\$544,500.37
9.650	6.748%	\$545,793.44
9.675	6.746%	\$547,086.15
9.700	6.744%	\$548,378.53
9.725	6.742%	\$549,670.67
9.750	6.740%	\$550,962.50
9.775	6.738%	\$552,254.02
9.800	6.736%	\$553,545.24
9.825	6.734%	\$554,836.17
9.850	6.732%	\$556,126.81
9.875	6.730%	\$557,417.17
9.900	6.728%	\$558,707.34
9.925	6.726%	\$560,000.00
9.950	6.724%	\$561,292.25
9.975	6.722%	\$562,584.09
10.000	6.720%	\$563,876.52



Jimmie Schindewolf, P.E.  
General Manager

November 30, 2006

BOARD OF DIRECTORS  
Alan J. Rendi, President  
Kelly Passler, Vice President  
Larox A. Sigler, Secretary  
James D. Pufflath, Treasurer  
Ron Graham, Asst. Secretary

Wayne G. Ahrens, P.E., Principal  
Dannenbaum Engineering Corporation  
3100 West Alabama  
Houston, Texas 77098

Re: Amended and Restated Agreement For Professional Engineering Services  
Dear Mr. Ahrens:

Transmitted herewith please find one fully executed duplicate original of the Amended and Restated Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and Dannenbaum Engineering Corporation. This Agreement was approved by the Authority Board of Directors at the November 6, 2006, Board meeting. I am also sending one duplicate original to Tom Rolen (Authority Program Director), one to Robin Bobbitt (Authority General Counsel), and I am retaining two for the Authority contact file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

Jimmie Schindewolf, P.E.  
General Manager

JAS/lhs

Attachment

Cc: Robin S. Bobbitt, Johnson Radcliff Petrov & Bobbitt PLLC - w/attachment  
Tom Rolen, P.E., Turner Collie & Braden, Inc. - w/attachment  
Shawn Nandagiri, P.E., NHCRWA  
Cyril Plunkett, NHCRWA - w/attachment

**AMENDED AND RESTATED AGREEMENT  
FOR PROFESSIONAL ENGINEERING SERVICES**

**(Dannenbaum Engineering Corporation)**

THE STATE OF TEXAS     §  
                                  §  
COUNTY OF HARRIS     §

THIS AMENDED AND RESTATED AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Amended Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and Dannenbaum Engineering Corporation (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects.

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

The Authority and the Engineer have previously entered into an Agreement for Professional Engineering Services; however, due to changed circumstances and the need for clarification and revision, the Authority and the Engineer desire to enter into this Amended Agreement.

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION I**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected in the detailed Scope of Services attached as **Appendices A and A-1** and that are specifically identified in the Scope of Services that will accompany each Work Authorization issued by the General Manager.
  
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional



services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).

3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.
4. "Design Phase Agreed Estimate" shall mean the estimate of probable Construction Cost for a Construction Package developed at the completion of the approved Preliminary Engineering Phase, updated at the completion of the Design Phase and agreed to in writing by the General Manager and the Engineer.
5. "Preliminary Phase Agreed Estimate" shall mean the estimate of probable Construction Cost developed and agreed to in writing by the General Manager and the Engineer prior to commencing work on the Preliminary Engineering Phase of the Project. This agreed estimate applies only to the Preliminary Engineering Phase.
6. "Program Manager" shall mean the Authority's manager of its water supply program.
7. "Project" shall mean a design and/or construction project of the Authority authorized by the General Manager through the issuance of a Work Authorization.

## SECTION II

### CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Amended Agreement, the General Manager of the Authority or his designee (hereinafter the "General Manager") may deliver to the Engineer written authorization (hereinafter known as "Work Authorization") in accordance with this Section for the performance of certain professional services with regard to specified Authority projects, which services the Engineer shall then perform in accordance with this Amended Agreement. The General Manager may authorize the Engineer to provide all or any of the engineering and related services that are listed in **Appendices A and A-1**, attached hereto and made a part hereof.

The Authority shall have no obligation to pay for any services hereunder that have been rendered without the prior Work Authorization of the General Manager. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the Authority with progress reports at such times and in such manner as may be requested by the General Manager. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the General Manager as soon as possible.

### SECTION III

#### TIME OF PERFORMANCE

Upon receipt of a Work Authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The Authority shall have no obligation to pay for a service performed after the required completion date for same, as set forth in its Work Authorization, except to the extent the date for required completion is extended and continuation of such service is approved by the General Manager.

### SECTION IV

#### THE ENGINEER'S COMPENSATION

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blue-line drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof; costs of travel outside of Harris County; rental costs of transportation equipment necessary to gain access to the project site; costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Amended Agreement are described as follows:

Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in **Appendix C**.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.

For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.

The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### SECTION V

##### TIME OF PAYMENT

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Amended Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager", in a form suitable to the Authority, setting forth the services provided under this Amended Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person

performing the services and countersigned by his/her supervisor certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Amended Agreement have been performed. Within forty-five (45) days after the performance of all services provided for in this Amended Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Amended Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

#### **SECTION VI TERMINATION**

Either party may terminate this Amended Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Amended Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Amended Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Amended Agreement, less such payments on account of the charges as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Amended Agreement shall be delivered to the Authority when and if this Amended Agreement is terminated.

#### **SECTION VII NOTICE**

Any notice required to be given under the provisions of this Amended Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Amended Agreement, all notices shall be delivered to the following addresses:

To the Engineer: Dannerbaum Engineering Corporation  
3100 W. Alabama  
Houston, Texas 77098

Attention: Wayne Ahrens, P.E., Vice President  
To the Authority: North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Attention: General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### **SECTION VIII**

#### **SUCCESSORS AND ASSIGNS**

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Amended Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Amended Agreement. Neither the Authority nor the Engineer shall assign, sublet, or transfer its or his/her interest in this Amended Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

#### **SECTION IX**

#### **PUBLIC CONTACT**

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Amended Agreement or any requested service shall be referred to the General Manager.

#### **SECTION X**

#### **COMPLIANCE AND STANDARDS**

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the

Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### SECTION XI

#### LICENSE REQUIREMENTS

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Amended Agreement.

#### SECTION XII

#### INSURANCE AND INDEMNIFICATION

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Amended Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Amended Agreement and that of its subconsultants or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subconsultants (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.

SECTION XIII  
OWNERSHIP OF PLANS, COPYRIGHT, AND  
OTHER INTELLECTUAL PROPERTY

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Amended Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Amended Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Amended Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Amended Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Amended Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Amended Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement.

Copies of all complete or partially complete information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement, shall also be delivered



by the Engineer to the General Manager when and if this Amended Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

#### **SECTION XIV**

#### **MODIFICATIONS**

This instrument contains the entire Amended Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

#### **SECTION XV**

#### **AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Amended Agreement and all questions as to the acceptable fulfillment of this Amended Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Amended Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Amended Agreement.

#### **SECTION XVI**

#### **SEVERABILITY**

Any provision or part of this Amended Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Amended Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**SECTION XVII**

**MERGER**

The Parties agree that this Amended Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Amended Agreement.

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SECTION XVIII  
EXECUTION

The Authority executes this Amended Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Amended Agreement shall not become effective until executed by all parties hereto.

NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

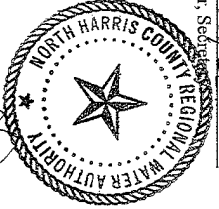
By:   
Alan J. Rendt, President

Date Signed: 11-24-06

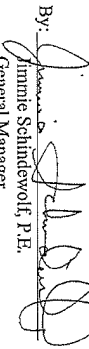
ATTEST:

By:   
Lenox A. Stigler, Secretary


(AUTHORITY SEAL)



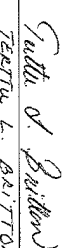
APPROVED:

By:   
Jimmie Schindewolf, P.E.  
General Manager

DANNENBAUM ENGINEERING  
CORPORATION

By:   
Name: WAYNE G. AHRENS  
Title: CHIEF OPERATIONS OFFICER  
Date Signed: 11/17/06

ATTEST:

By:   
Name: TULLIE L. SULLIVAN  
Title: ADMIN. ASST.

APPENDIX A

SCOPE OF SERVICES

(Dannenbaum Engineering Corporation)

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see **Appendix A-1**) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnects, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.

APPENDIX A-1

SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES

(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

1. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternative water line alignments considering all relevant factors and prepare schematic layouts for each alternative route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review.
  - i. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.

2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues

- associated with such submittals within fourteen (14) calendar days of receipt of submittals from the Program Manager.
- e. Prepare revisions to the contract documents (*i.e.*, change orders) at no charge to the Authority when such change orders are required to make clarifications, correct discrepancies, errors or omissions to the contract documents.
  - f. When requested by the Program Manager, evaluate contractor changes and cost proposals and recommend action to the Program Manager.
  - g. Make monthly site visits to the Project site to observe the progress and quality of the executed work. Such site visits are to be coordinated with the Program Manager and a site visit report shall be submitted to the Program Manager after each such site visit, indicating observations related to the executed work.
  - h. Attend final Project walkthrough.
  - i. Prepare "record drawings" indicating changes to the contract drawings and showing significant changes made to the work during the construction of the Project. Such changes will be based upon marked-up "record drawings" furnished to the Engineer by the Program Manager and the construction contractor.



**APPENDIX B**  
**HOURLY RATE SHEET**  
**(Dannenbaum Engineering Corporation)**

January, 2002

Clerks, Printers, etc.....	\$ 35.00
Secretaries.....	48.00
Executive Secretary, Administrative Asst., Proposal Asst. ....	65.00
CAD Manager.....	88.00
System Analyst, Computer Operators.....	75.00
Computer Technicians I, Draftsman I.....	45.00
Computer Technicians II & III, Draftsman II & III.....	75.00
Designers, Grade I & II.....	70.00
Designers, Grade III.....	86.00
4 Man Survey Crew.....	150.00
3 Man Survey Crew.....	125.00
2 Man Survey Crew.....	100.00
Party Chief.....	62.00
Instrument Technicians.....	47.00
Rodmen, Chainmen.....	30.00
Survey Coordinator, Project Surveyor.....	85.00
Director of Survey, Registered Surveyor.....	135.00
Inspectors, Project Representatives.....	75.00
Engineers I & II, Engineering Assistant.....	72.00
Engineers III, Engineering Associate.....	80.00
Engineers IV.....	104.00
Engineers V.....	130.00
Engineers VI, Principal, Project Manager.....	200.00

GPS RTK.....\$350.00/day (Survey)

**IN-HOUSE REPRODUCTION COSTS (NO MARK-UP INCLUDED):**

Xerox	\$ 0.05 per Copy (8 1/2" x 11")
Xerox Prints	\$ 1.00 per Square Foot
Blueines	\$ 0.20 per Square Foot
Seplas	\$ 1.50 per Square Foot
MyIars	\$ 3.75 per Square Foot
Vellum	\$ 2.30 per Square Foot

- Notes:**
- (1) Additional classifications and subsequent year rates must be approved in writing by the General Manager.
  - (2) Subconsultant costs and other miscellaneous expenses as approved by the General Manager will be paid at cost plus 10%.

APPENDIX C

CITY OF HOUSTON CURVES FOR MEDIAN COMPENSATION

(Dannebaum Engineering Corporation)



**CITY OF HOUSTON**  
Public Works and Engineering  
Department

Leo P. Brown

Mayor

Don O. Vanden Brink, P.E.  
Director  
Department of  
Public Works and  
Engineering  
Houston, Texas 77251-1682  
T: 713.837.9007  
F: 713.837.0040  
www.houston.gov

July 16, 2002

Christina M. Lindsay, Executive Director  
Houston - CEG  
2020 North Loop West, Suite 240  
Houston, Texas 77018

Dear Ms. Lindsay:  
PW&E has adopted the revised Course of Studies Comparison attached hereto. These courses and/or the associated tables will be used for determining the engineering fees as appropriate in the Department and WSPB roads.  
Sincerely,

Don O. Vanden Brink, P.E.  
Director  
Department of Public Works and Engineering

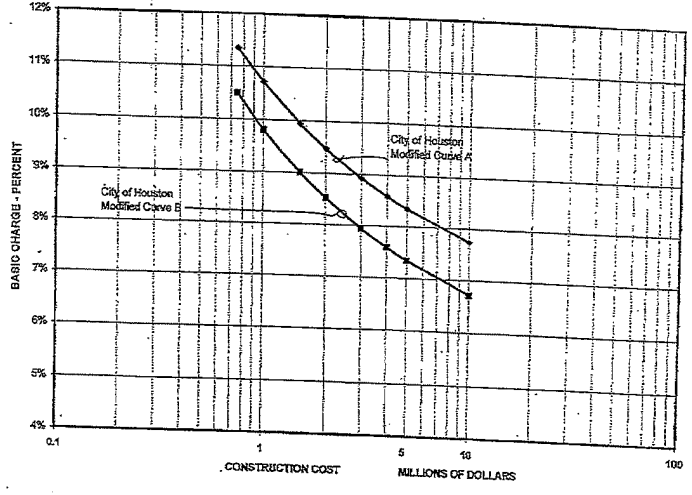
CC: Gerald Mendelsohn, P.E.  
Jeff Taylor  
Eric Deignan  
Rick Vacker - Aviation Department  
Monique McCallister - Building Services Department

Specialist/Staff: Bruce P. King, Gerald L. Galloway, Michael G. Long, Adda W. Wilson, Kirk A. Bink, Daniel J. Gaudin, Vincent G. Kelly, Jr.,  
Renee C. Probst, Christopher S. Gray, David A. Oles, M.D., Michael G. Conroy, David G. Robinson  
Contractor: Griffin R. Gaudin

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
Curves of Median Compensation  
Curves A and B

*Shawri Nardolgi*  
Shawri Nardolgi, P.E.  
Deputy Director

*John C. Van den Bosch*  
John C. Van den Bosch, P.E.  
Director



02/26/2002

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
0.760	11.347%	\$65,000.31	0.760	10.489%	\$78,668.64
0.775	11.270%	\$67,338.27	0.775	10.457%	\$80,062.40
0.800	11.188%	\$69,698.35	0.800	10.394%	\$82,682.80
0.825	11.105%	\$71,929.77	0.825	10.324%	\$84,568.00
0.850	11.023%	\$74,099.41	0.850	10.254%	\$86,058.88
0.875	10.938%	\$76,204.43	0.875	10.183%	\$87,058.88
0.900	10.853%	\$78,248.89	0.900	10.112%	\$87,446.37
0.925	10.774%	\$80,236.55	0.925	10.042%	\$87,379.74
0.950	10.695%	\$82,164.28	0.950	9.987%	\$87,308.28
0.975	10.616%	\$84,036.91	1.000	9.895%	\$87,220.27
1.000	10.537%	\$85,858.43	1.025	9.794%	\$87,120.27
1.025	10.458%	\$87,624.95	1.050	9.687%	\$87,010.27
1.050	10.379%	\$89,332.47	1.075	9.574%	\$86,890.27
1.075	10.299%	\$90,977.99	1.100	9.456%	\$86,760.27
1.100	10.219%	\$92,558.51	1.125	9.333%	\$86,620.27
1.125	10.139%	\$94,079.03	1.150	9.205%	\$86,470.27
1.150	10.059%	\$95,534.55	1.175	9.072%	\$86,310.27
1.175	9.979%	\$96,929.07	1.200	8.934%	\$86,140.27
1.200	9.899%	\$98,258.59	1.225	8.791%	\$85,960.27
1.225	9.819%	\$99,528.11	1.250	8.643%	\$85,770.27
1.250	9.739%	\$100,738.63	1.275	8.490%	\$85,570.27
1.275	9.659%	\$101,884.15	1.300	8.332%	\$85,360.27
1.300	9.579%	\$102,968.67	1.325	8.169%	\$85,140.27
1.325	9.499%	\$103,996.19	1.350	8.001%	\$84,910.27
1.350	9.419%	\$104,961.71	1.375	7.828%	\$84,670.27
1.375	9.339%	\$105,869.23	1.400	7.650%	\$84,420.27
1.400	9.259%	\$106,723.75	1.425	7.467%	\$84,160.27
1.425	9.179%	\$107,521.27	1.450	7.279%	\$83,890.27
1.450	9.099%	\$108,258.79	1.475	7.086%	\$83,610.27
1.475	9.019%	\$108,931.31	1.500	6.888%	\$83,320.27
1.500	8.939%	\$109,544.83	1.525	6.685%	\$83,020.27
1.525	8.859%	\$110,094.35	1.550	6.477%	\$82,710.27
1.550	8.779%	\$110,584.87	1.575	6.264%	\$82,390.27
1.575	8.699%	\$111,020.39	1.600	6.046%	\$82,060.27
1.600	8.619%	\$111,406.91	1.625	5.823%	\$81,720.27
1.625	8.539%	\$111,739.43	1.650	5.595%	\$81,370.27
1.650	8.459%	\$112,022.95	1.675	5.362%	\$81,010.27
1.675	8.379%	\$112,262.47	1.700	5.124%	\$80,640.27
1.700	8.299%	\$112,462.99	1.725	4.881%	\$80,260.27
1.725	8.219%	\$112,629.51	1.750	4.633%	\$79,870.27
1.750	8.139%	\$112,757.03	1.775	4.380%	\$79,470.27
1.775	8.059%	\$112,840.55	1.800	4.122%	\$79,060.27
1.800	7.979%	\$112,884.07	1.825	3.859%	\$78,640.27
1.825	7.899%	\$112,892.59	1.850	3.591%	\$78,210.27
1.850	7.819%	\$112,861.11	1.875	3.318%	\$77,770.27
1.875	7.739%	\$112,794.63	1.900	3.040%	\$77,320.27
1.900	7.659%	\$112,697.15	1.925	2.757%	\$76,860.27
1.925	7.579%	\$112,564.67	1.950	2.469%	\$76,390.27
1.950	7.499%	\$112,392.19	1.975	2.176%	\$75,910.27
1.975	7.419%	\$112,184.71	2.000	1.878%	\$75,420.27
2.000	7.339%	\$111,947.23			

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MODIFIED CURVE A			MODIFIED CURVE B		
CON. of Construction In Millions	Percent	Fee	CON. of Construction In Millions	Percent	Fee
1,025	0.541%	\$183,656.17	1,505	0.693%	\$164,210.09
1,950	0.521%	\$195,036.33	1,950	0.667%	\$169,702.07
2,975	0.502%	\$197,862.78	2,900	0.642%	\$170,440.01
2,025	0.464%	\$193,029.38	2,000	0.602%	\$172,175.30
2,080	0.449%	\$193,029.37	2,075	0.604%	\$172,879.36
2,075	0.442%	\$188,016.46	2,100	0.608%	\$177,366.71
2,100	0.441%	\$187,589.10	2,125	0.629%	\$170,090.89
2,120	0.439%	\$189,583.21	2,150	0.641%	\$180,513.60
2,140	0.438%	\$203,650.37	2,200	0.670%	\$162,353.82
2,175	0.432%	\$208,516.43	2,225	0.689%	\$166,907.64
2,200	0.429%	\$207,488.21	2,250	0.704%	\$169,920.81
2,225	0.425%	\$209,459.74	2,275	0.720%	\$180,542.03
2,250	0.423%	\$211,427.05	2,300	0.735%	\$184,100.95
2,300	0.422%	\$213,393.43	2,325	0.749%	\$187,659.87
2,325	0.420%	\$213,393.43	2,350	0.762%	\$191,218.79
2,350	0.418%	\$217,315.03	2,375	0.773%	\$194,412.30
2,375	0.418%	\$219,270.91	2,400	0.782%	\$196,214.18
2,400	0.416%	\$221,238.53	2,425	0.790%	\$197,016.19
2,425	0.414%	\$223,206.15	2,450	0.797%	\$201,303.59
2,450	0.413%	\$225,173.78	2,475	0.803%	\$204,694.26
2,475	0.412%	\$227,141.41	2,500	0.808%	\$208,087.09
2,500	0.411%	\$229,109.04	2,525	0.812%	\$211,481.94
2,525	0.410%	\$231,076.67	2,550	0.816%	\$214,876.79
2,550	0.409%	\$233,044.30	2,575	0.819%	\$218,271.64
2,575	0.408%	\$235,011.93	2,600	0.822%	\$221,666.49
2,600	0.407%	\$236,979.56	2,625	0.825%	\$225,061.34
2,625	0.406%	\$238,947.19	2,650	0.828%	\$228,456.19
2,650	0.405%	\$240,914.82	2,675	0.831%	\$231,851.04
2,675	0.404%	\$242,882.45	2,700	0.834%	\$235,245.89
2,700	0.403%	\$244,850.08	2,725	0.837%	\$238,640.74
2,725	0.402%	\$246,817.71	2,750	0.840%	\$242,035.59
2,750	0.401%	\$248,785.34	2,775	0.843%	\$245,430.44
2,775	0.400%	\$250,752.97	2,800	0.846%	\$248,825.29
2,800	0.399%	\$252,720.60	2,825	0.849%	\$252,220.14
2,825	0.398%	\$254,688.23	2,850	0.852%	\$255,614.99
2,850	0.397%	\$256,655.86	2,875	0.855%	\$259,009.84
2,875	0.396%	\$258,623.49	2,900	0.858%	\$262,404.69
2,900	0.395%	\$260,591.12	2,925	0.861%	\$265,799.54
2,925	0.394%	\$262,558.75	2,950	0.864%	\$269,194.39
2,950	0.393%	\$264,526.38	2,975	0.867%	\$272,589.24
2,975	0.392%	\$266,494.01	3,000	0.870%	\$275,984.09
3,000	0.391%	\$268,461.64	3,025	0.873%	\$279,378.94
3,025	0.390%	\$270,429.27	3,050	0.876%	\$282,773.79
3,050	0.389%	\$272,396.90	3,075	0.879%	\$286,168.64
3,075	0.388%	\$274,364.53			\$289,563.49

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MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Completion In Millions	Percent	Fee	Cost of Completion In Millions	Percent	Fee
3,100	8.881%	\$276,533.41	3,100	7.688%	\$244,788.37
3,125	8.871%	\$277,532.16	3,125	7.680%	\$245,408.48
3,150	8.862%	\$278,530.95	3,150	7.673%	\$246,028.59
3,175	8.853%	\$279,529.74	3,175	7.666%	\$246,648.70
3,200	8.844%	\$280,528.53	3,200	7.659%	\$247,268.81
3,225	8.835%	\$281,527.32	3,225	7.652%	\$247,888.92
3,250	8.826%	\$282,526.11	3,250	7.645%	\$248,509.03
3,275	8.817%	\$283,524.90	3,275	7.638%	\$249,129.14
3,300	8.808%	\$284,523.69	3,300	7.631%	\$249,749.25
3,325	8.799%	\$285,522.48	3,325	7.624%	\$250,369.36
3,350	8.790%	\$286,521.27	3,350	7.617%	\$250,989.47
3,375	8.781%	\$287,520.06	3,375	7.610%	\$251,609.58
3,400	8.772%	\$288,518.85	3,400	7.603%	\$252,229.69
3,425	8.763%	\$289,517.64	3,425	7.596%	\$252,849.80
3,450	8.754%	\$290,516.43	3,450	7.589%	\$253,469.91
3,475	8.745%	\$291,515.22	3,475	7.582%	\$254,090.02
3,500	8.736%	\$292,514.01	3,500	7.575%	\$254,710.13
3,525	8.727%	\$293,512.80	3,525	7.568%	\$255,330.24
3,550	8.718%	\$294,511.59	3,550	7.561%	\$255,950.35
3,575	8.709%	\$295,510.38	3,575	7.554%	\$256,570.46
3,600	8.700%	\$296,509.17	3,600	7.547%	\$257,190.57
3,625	8.691%	\$297,507.96	3,625	7.540%	\$257,810.68
3,650	8.682%	\$298,506.75	3,650	7.533%	\$258,430.79
3,675	8.673%	\$299,505.54	3,675	7.526%	\$259,050.90
3,700	8.664%	\$300,504.33	3,700	7.519%	\$259,671.01
3,725	8.655%	\$301,503.12	3,725	7.512%	\$260,291.12
3,750	8.646%	\$302,501.91	3,750	7.505%	\$260,911.23
3,775	8.637%	\$303,500.70	3,775	7.498%	\$261,531.34
3,800	8.628%	\$304,499.49	3,800	7.491%	\$262,151.45
3,825	8.619%	\$305,498.28	3,825	7.484%	\$262,771.56
3,850	8.610%	\$306,497.07	3,850	7.477%	\$263,391.67
3,875	8.601%	\$307,495.86	3,875	7.470%	\$264,011.78
3,900	8.592%	\$308,494.65	3,900	7.463%	\$264,631.89
3,925	8.583%	\$309,493.44	3,925	7.456%	\$265,252.00
3,950	8.574%	\$310,492.23	3,950	7.449%	\$265,872.11
3,975	8.565%	\$311,491.02	3,975	7.442%	\$266,492.22
4,000	8.556%	\$312,489.81	4,000	7.435%	\$267,112.33
4,025	8.547%	\$313,488.60	4,025	7.428%	\$267,732.44
4,050	8.538%	\$314,487.39	4,050	7.421%	\$268,352.55
4,075	8.529%	\$315,486.18	4,075	7.414%	\$268,972.66
4,100	8.520%	\$316,484.97	4,100	7.407%	\$269,592.77
4,125	8.511%	\$317,483.76	4,125	7.400%	\$270,212.88
4,150	8.502%	\$318,482.55	4,150	7.393%	\$270,832.99
4,175	8.493%	\$319,481.34	4,175	7.386%	\$271,453.10
4,200	8.484%	\$320,480.13	4,200	7.379%	\$272,073.21
4,225	8.475%	\$321,478.92	4,225	7.372%	\$272,693.32
4,250	8.466%	\$322,477.71	4,250	7.365%	\$273,313.43
4,275	8.457%	\$323,476.50	4,275	7.358%	\$273,933.54
4,300	8.448%	\$324,475.29	4,300	7.351%	\$274,553.65
4,325	8.439%	\$325,474.08	4,325	7.344%	\$275,173.76
4,350	8.430%	\$326,472.87	4,350	7.337%	\$275,793.87
4,375	8.421%	\$327,471.66	4,375	7.330%	\$276,413.98
4,400	8.412%	\$328,470.45	4,400	7.323%	\$277,034.09
4,425	8.403%	\$329,469.24	4,425	7.316%	\$277,654.20
4,450	8.394%	\$330,468.03	4,450	7.309%	\$278,274.31

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6/26/2002

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Contribution	Percent	Fee	Cost of Contribution	Percent	Fee
In Millions			In Millions		
4.275	8.609%	\$303,735.16	4.275	7.610%	\$321,083.75
4.300	8.602%	\$305,692.48	4.300	7.604%	\$322,983.51
4.325	8.595%	\$307,647.80	4.325	7.597%	\$324,883.27
4.350	8.588%	\$309,602.43	4.350	7.591%	\$326,783.03
4.400	8.577%	\$317,109.08	4.375	7.488%	\$327,448.41
4.425	8.471%	\$374,980.80	4.400	7.479%	\$328,048.81
4.450	8.469%	\$376,711.08	4.425	7.468%	\$332,228.41
4.475	8.469%	\$378,621.10	4.450	7.463%	\$333,621.07
4.500	8.464%	\$380,411.48	4.500	7.463%	\$335,411.77
4.525	8.462%	\$382,197.86	4.525	7.461%	\$337,201.58
4.550	8.459%	\$383,979.24	4.550	7.458%	\$339,000.18
4.575	8.459%	\$385,755.62	4.575	7.458%	\$340,810.75
4.600	8.450%	\$397,800.75	4.600	7.449%	\$341,788.41
4.625	8.442%	\$399,948.08	4.625	7.444%	\$343,593.00
4.650	8.444%	\$402,095.41	4.700	7.407%	\$348,021.77
4.675	8.444%	\$404,242.74	4.725	7.401%	\$349,691.33
4.700	8.403%	\$397,018.17	4.750	7.395%	\$351,273.82
4.725	8.397%	\$398,980.50	4.775	7.389%	\$352,828.72
4.750	8.397%	\$400,942.83	4.800	7.382%	\$354,358.79
4.775	8.388%	\$402,905.16	4.825	7.370%	\$356,017.04
4.800	8.384%	\$404,867.49	4.850	7.363%	\$357,696.54
4.825	8.370%	\$408,218.13	4.875	7.362%	\$359,175.28
4.850	8.369%	\$411,293.42	4.900	7.362%	\$360,763.28
4.875	8.369%	\$413,663.75	4.925	7.362%	\$362,360.50
4.900	8.360%	\$416,388.32	4.950	7.346%	\$363,967.77
4.925	8.349%	\$417,338.17	5.000	7.341%	\$367,097.77
5.000	8.349%	\$420,007.71	5.025	7.339%	\$368,692.97
5.025	8.335%	\$422,723.42	5.050	7.338%	\$370,288.16
5.100	8.325%	\$426,880.42	5.100	7.321%	\$374,923.84
5.125	8.320%	\$428,880.72	5.125	7.319%	\$376,023.07
5.150	8.310%	\$430,880.32	5.150	7.311%	\$377,082.81
5.175	8.310%	\$431,677.48	5.200	7.301%	\$379,632.76
5.200	8.305%	\$433,708.08	5.225	7.289%	\$381,200.83
5.225	8.289%	\$435,831.08	5.250	7.281%	\$382,798.80
5.250	8.289%	\$437,954.08	5.275	7.280%	\$384,358.89
5.300	8.281%	\$441,008.67	5.300	7.270%	\$387,403.88
5.325	8.271%	\$442,832.80	5.350	7.272%	\$390,608.58
5.375	8.273%	\$444,806.37	5.375	7.282%	\$392,182.82
5.400	8.269%	\$446,879.94	5.400	7.282%	\$393,757.06

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MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
6.480	0.235%	\$160,133.29	6.480	7.283%	\$399,288.49
5.475	0.255%	\$161,104.42	6.475	7.284%	\$399,289.01
6.600	0.260%	\$163,764.80	6.600	7.284%	\$399,289.01
6.625	0.249%	\$165,934.34	6.625	7.283%	\$399,072.63
6.800	0.242%	\$167,403.47	6.800	7.283%	\$401,632.74
6.600	0.237%	\$168,221.97	6.600	7.283%	\$401,002.22
6.625	0.237%	\$168,221.97	6.625	7.281%	\$400,951.09
6.825	0.239%	\$169,697.13	6.825	7.281%	\$400,951.09
6.800	0.224%	\$168,497.80	6.800	7.217%	\$407,768.61
6.075	0.220%	\$168,498.89	6.075	7.213%	\$409,323.06
6.720	0.219%	\$169,305.53	6.720	7.208%	\$410,880.35
6.740	0.214%	\$169,305.53	6.740	7.208%	\$410,880.35
6.760	0.203%	\$171,034.47	6.760	7.200%	\$411,638.16
6.775	0.203%	\$173,746.15	6.775	7.198%	\$417,090.09
6.600	0.199%	\$175,591.29	6.600	7.191%	\$417,090.09
6.625	0.199%	\$177,313.77	6.625	7.187%	\$416,653.38
6.825	0.197%	\$177,313.77	6.825	7.185%	\$420,028.21
6.875	0.197%	\$180,097.07	6.875	7.185%	\$420,028.21
6.600	0.193%	\$182,507.86	6.600	7.179%	\$423,340.13
6.625	0.179%	\$184,619.09	6.625	7.171%	\$424,641.23
6.925	0.179%	\$184,619.09	6.925	7.169%	\$429,811.70
6.950	0.167%	\$189,046.90	6.950	7.169%	\$429,811.70
6.000	0.167%	\$181,893.37	6.000	7.159%	\$431,059.92
6.025	0.164%	\$183,690.81	6.025	7.151%	\$432,902.19
6.950	0.160%	\$189,497.09	6.950	7.147%	\$434,169.91
6.075	0.159%	\$189,497.09	6.075	7.147%	\$434,169.91
6.100	0.146%	\$189,070.84	6.100	7.139%	\$437,443.07
6.125	0.144%	\$190,938.10	6.125	7.133%	\$439,243.79
6.175	0.144%	\$192,698.82	6.175	7.131%	\$440,341.57
6.190	0.137%	\$192,698.82	6.190	7.127%	\$441,096.26
6.195	0.130%	\$190,100.82	6.195	7.120%	\$441,574.02
6.250	0.130%	\$190,100.82	6.250	7.109%	\$441,574.02
6.270	0.123%	\$190,003.44	6.270	7.109%	\$444,610.80
6.300	0.122%	\$191,705.53	6.300	7.112%	\$446,610.80
6.325	0.119%	\$193,807.11	6.325	7.109%	\$449,003.20
6.350	0.118%	\$195,498.48	6.350	7.109%	\$449,003.20
6.375	0.113%	\$197,108.72	6.375	7.101%	\$452,060.91
6.400	0.108%	\$198,908.77	6.400	7.097%	\$454,227.00
6.425	0.104%	\$199,708.30	6.425	7.094%	\$456,797.34
6.450	0.101%	\$199,708.30	6.450	7.089%	\$459,307.10
6.475	0.101%	\$202,607.24	6.475	7.083%	\$462,060.91
6.500	0.094%	\$202,607.24	6.500	7.083%	\$465,085.68
6.525	0.094%	\$202,607.24	6.525	7.079%	\$468,481.08
6.550	0.087%	\$202,999.60	6.550	7.072%	\$473,083.32
6.575	0.084%	\$201,499.08	6.575	7.069%	\$478,000.00
6.600	0.080%	\$203,291.13	6.600	7.069%	\$483,580.00

0



06/22/02

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
7.800	7.836%	\$616,673.49	7.800	6.8220%	\$536,766.09
7.825	7.833%	\$620,761.83	7.825	6.817%	\$541,291.48
7.850	7.830%	\$624,850.17	7.850	6.812%	\$545,816.87
7.875	7.828%	\$628,938.51	7.875	6.807%	\$550,342.26
7.900	7.826%	\$633,026.85	7.900	6.802%	\$554,867.65
7.925	7.824%	\$637,115.19	7.925	6.797%	\$559,393.04
7.950	7.822%	\$641,203.53	7.950	6.792%	\$563,918.43
7.975	7.820%	\$645,291.87	7.975	6.787%	\$568,443.82
8.000	7.818%	\$649,380.21	8.000	6.782%	\$572,969.21
8.025	7.816%	\$653,468.55	8.025	6.777%	\$577,494.60
8.050	7.814%	\$657,556.89	8.050	6.772%	\$582,020.00
8.075	7.812%	\$661,645.23	8.075	6.767%	\$586,545.39
8.100	7.810%	\$665,733.57	8.100	6.762%	\$591,070.78
8.125	7.808%	\$669,821.91	8.125	6.757%	\$595,596.17
8.150	7.806%	\$673,910.25	8.150	6.752%	\$600,121.56
8.175	7.804%	\$678,000.00	8.175	6.747%	\$604,646.95
8.200	7.802%	\$682,089.75	8.200	6.742%	\$609,172.34
8.225	7.800%	\$686,179.50	8.225	6.737%	\$613,697.73
8.250	7.798%	\$690,269.25	8.250	6.732%	\$618,223.12
8.275	7.796%	\$694,359.00	8.275	6.727%	\$622,748.51
8.300	7.794%	\$698,448.75	8.300	6.722%	\$627,273.90
8.325	7.792%	\$702,538.50	8.325	6.717%	\$631,799.29
8.350	7.790%	\$706,628.25	8.350	6.712%	\$636,324.68
8.375	7.788%	\$710,718.00	8.375	6.707%	\$640,850.07
8.400	7.786%	\$714,807.75	8.400	6.702%	\$645,375.46
8.425	7.784%	\$718,897.50	8.425	6.697%	\$649,900.85
8.450	7.782%	\$722,987.25	8.450	6.692%	\$654,426.24
8.475	7.780%	\$727,077.00	8.475	6.687%	\$658,951.63
8.500	7.778%	\$731,166.75	8.500	6.682%	\$663,477.02
8.525	7.776%	\$735,256.50	8.525	6.677%	\$668,002.41
8.550	7.774%	\$739,346.25	8.550	6.672%	\$672,527.80
8.575	7.772%	\$743,436.00	8.575	6.667%	\$677,053.19
8.600	7.770%	\$747,525.75	8.600	6.662%	\$681,578.58
8.625	7.768%	\$751,615.50	8.625	6.657%	\$686,103.97
8.650	7.766%	\$755,705.25	8.650	6.652%	\$690,629.36
8.675	7.764%	\$759,795.00	8.675	6.647%	\$695,154.75
8.700	7.762%	\$763,884.75	8.700	6.642%	\$699,680.14
8.725	7.760%	\$767,974.50	8.725	6.637%	\$704,205.53
8.750	7.758%	\$772,064.25	8.750	6.632%	\$708,730.92
8.775	7.756%	\$776,154.00	8.775	6.627%	\$713,256.31
8.800	7.754%	\$780,243.75	8.800	6.622%	\$717,781.70
8.825	7.752%	\$784,333.50	8.825	6.617%	\$722,307.09
8.850	7.750%	\$788,423.25	8.850	6.612%	\$726,832.48
8.875	7.748%	\$792,513.00	8.875	6.607%	\$731,357.87
8.900	7.746%	\$796,602.75	8.900	6.602%	\$735,883.26
8.925	7.744%	\$800,692.50	8.925	6.597%	\$740,408.65
8.950	7.742%	\$804,782.25	8.950	6.592%	\$744,934.04
8.975	7.740%	\$808,872.00	8.975	6.587%	\$749,459.43
9.000	7.738%	\$812,961.75	9.000	6.582%	\$753,984.82
9.025	7.736%	\$817,051.50	9.025	6.577%	\$758,510.21
9.050	7.734%	\$821,141.25	9.050	6.572%	\$763,035.60
9.075	7.732%	\$825,231.00	9.075	6.567%	\$767,561.00
9.100	7.730%	\$829,320.75	9.100	6.562%	\$772,086.39
9.125	7.728%	\$833,410.50	9.125	6.557%	\$776,611.78
9.150	7.726%	\$837,500.25	9.150	6.552%	\$781,137.17
9.175	7.724%	\$841,590.00	9.175	6.547%	\$785,662.56
9.200	7.722%	\$845,679.75	9.200	6.542%	\$790,187.95
9.225	7.720%	\$849,769.50	9.225	6.537%	\$794,713.34
9.250	7.718%	\$853,859.25	9.250	6.532%	\$799,238.73
9.275	7.716%	\$857,949.00	9.275	6.527%	\$803,764.12
9.300	7.714%	\$862,038.75	9.300	6.522%	\$808,289.51
9.325	7.712%	\$866,128.50	9.325	6.517%	\$812,814.90
9.350	7.710%	\$870,218.25	9.350	6.512%	\$817,340.29
9.375	7.708%	\$874,308.00	9.375	6.507%	\$821,865.68
9.400	7.706%	\$878,397.75	9.400	6.502%	\$826,391.07
9.425	7.704%	\$882,487.50	9.425	6.497%	\$830,916.46
9.450	7.702%	\$886,577.25	9.450	6.492%	\$835,441.85
9.475	7.700%	\$890,667.00	9.475	6.487%	\$839,967.24
9.500	7.698%	\$894,756.75	9.500	6.482%	\$844,492.63
9.525	7.696%	\$898,846.50	9.525	6.477%	\$849,018.02
9.550	7.694%	\$902,936.25	9.550	6.472%	\$853,543.41
9.575	7.692%	\$907,026.00	9.575	6.467%	\$858,068.80
9.600	7.690%	\$911,115.75	9.600	6.462%	\$862,594.19
9.625	7.688%	\$915,205.50	9.625	6.457%	\$867,119.58
9.650	7.686%	\$919,295.25	9.650	6.452%	\$871,644.97
9.675	7.684%	\$923,385.00	9.675	6.447%	\$876,170.36
9.700	7.682%	\$927,474.75	9.700	6.442%	\$880,695.75
9.725	7.680%	\$931,564.50	9.725	6.437%	\$885,221.14
9.750	7.678%	\$935,654.25	9.750	6.432%	\$889,746.53
9.775	7.676%	\$939,744.00	9.775	6.427%	\$894,271.92
9.800	7.674%	\$943,833.75	9.800	6.422%	\$898,797.31
9.825	7.672%	\$947,923.50	9.825	6.417%	\$903,322.70
9.850	7.670%	\$952,013.25	9.850	6.412%	\$907,848.09
9.875	7.668%	\$956,103.00	9.875	6.407%	\$912,373.48
9.900	7.666%	\$960,192.75	9.900	6.402%	\$916,898.87
9.925	7.664%	\$964,282.50	9.925	6.397%	\$921,424.26
9.950	7.662%	\$968,372.25	9.950	6.392%	\$925,949.65
9.975	7.660%	\$972,462.00	9.975	6.387%	\$930,475.04
10.000	7.658%	\$976,551.75	10.000	6.382%	\$935,000.43

7





January 15, 2015

Mr. Jimmie Schindewolf, P.E.  
General Manager  
North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Reference: Name Change for Pate Engineers, Inc.

Dear Mr. Schindewolf:

This letter is to request acknowledgement or further action as you may require regarding our company name change. We have changed our name; but our people, organization, and our commitment to the North Harris County Regional Water Authority will not change. **IDS Engineering Group** will operate under the same Federal Tax Identification Number, maintain our licensure with the Texas Board of Professional Engineers, and retain our current address and telephone numbers. Enclosed is a copy of our W-9 form and the Certificate of Filing from the Office of the Secretary of State.

Should you have any questions or require anything further to formalize our name change, please feel free to contact me at 713.462.3178.

Respectfully,

A handwritten signature in black ink, appearing to read "Travis S. Sellers".

Travis S. Sellers, P.E.  
Vice President

Enclosures

S:\STARS\PUBLIC WORKS\Star\Time\Transition\OS\_PW\_MHC\RWMA.docx

JAN 21 04:11:07

Corporations Section  
P.O. Box 13697  
Austin, Texas 78711-3697



Hope Andrade  
Secretary of State

**Office of the Secretary of State**

**CERTIFICATE OF FILING  
OF**

IDS Engineering Group, Inc.  
69200700

[formerly: PATE ENGINEERS, INC.]

The undersigned, as Secretary of State of Texas, hereby certifies that a Certificate of Amendment for the above named entity has been received in this office and has been found to conform to the applicable provisions of law.

ACCORDINGLY, the undersigned, as Secretary of State, and by virtue of the authority vested in the secretary by law, hereby issues this certificate evidencing filing effective on the date shown below.

Date: 07/03/2012

Effective: 07/03/2012



A handwritten signature in cursive script, appearing to read "Hope Andrade".

Hope Andrade  
Secretary of State

Phone: (512) 463-5555  
Prepared by: Kika Garza

Come visit us on the Internet at <http://www.sos.state.tx.us/>  
Fax: (512) 463-5709  
TDD: 10303

Dial: 7-1-1 for Relay Services  
Document: 428717030002

Print or type  
 See Specific Instructions on page 2.

Have this shown on your income tax return  
 Pate Engineers, Inc.  
 Business name (requestor's name, if different from above)

IRS Engineering Group  
 Check appropriate box for federal tax classification:  
 Individual sole proprietor  
 C Corporation  
 S Corporation  
 Partnership  
 Trust/estate  
 Limited liability company. Enter the tax classification (C-C corporation, S-S corporation, Partnership) \_\_\_\_\_  
 Other (see instructions) \_\_\_\_\_

Address (number, street, and apt. or suite no.)  
 13333 Northwest Freeway, Suite 300  
 City, state, and ZIP code  
 Houston, Texas 77040

Last account number(s) (see optional)

Requester's name and address (optional)

**Taxpayer Identification Number (TIN)**

Enter TIN in the appropriate box. The TIN provided must match the name shown on the "Requester" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note: If the account is in more than one name, see the chart on page 4 for guidelines on which number to enter.

Employer identification number	7	6	-	0	0	9	1	7	7	6
--------------------------------	---	---	---	---	---	---	---	---	---	---

**Certification**

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below).

Certification instructions: You must check one item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and instructions on page 3, the TIN shown on this form must be the TIN you used to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here: Thomas Fowler      Signature of U.S. person: \_\_\_\_\_      Date: 11/18/09

**General Instructions**  
 Section references are to the Internal Revenue Code unless otherwise noted.

**Purpose of Form**  
 A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest or debt, acquisition or abandonment of secured property, cancellation of debt, or contributions you make to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct for you are waiting for a number to be issued;
2. Certify that you are not subject to backup withholding, or
3. Claim an exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partner's share of effectively connected income.

Note: If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person for federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships: Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partner's share of income from that business. Partnerships that are not subject to this tax must file Form W-9 and pay the withholding tax. Therefore, if you are a U.S. person who is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

**Request for Taxpayer  
 Identification Number and Certification**

Give Form to the  
 requester. Do not  
 send to the IRS.

Print or type  
 Specific instructions on page 2.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.  
**IDS Engineering Group, Inc.**

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification: check only one of the following seven boxes:  
 Individual/sole proprietor or single-member LLC  
 C Corporation  
 S Corporation  
 Partnership  
 Trust/estate  
 Limited liability company. Enter the tax classification (C-C corporation, S-S corporation, P-partnership) **5**  
 Note: For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner.  
 Other (see instructions) **▶**

4 Exemptions (check only one; certain entities not indicated; see instructions on page 3):  
 Exempt payee code (if any) **5**  
 Exemption from FATCA reporting code (if any) **5**  
(Applies to reciprocal agreements under an U.S.)

5 Address (number, street, and apt. or suite no.)  
**13333 Northwest Freeway, Suite 300**

6 City, state, and ZIP code  
**Houston, Texas 77040**

7 List account number(s) here (optional)

Requester's name and address (optional)

**Part I Taxpayer Identification Number (TIN)**

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions or page 3 for other TINs. If you are an employer, identification number (EIN), if you do not have a number, see flow to get a TIN on page 3.

Note: If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

**Part II Certification**

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
  - I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
  - I am a U.S. citizen or other U.S. person (defined below); and
  - The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.
- Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign this certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here  
 Signature of U.S. person **▶** *William M. Spritz* Date **▶** *January 27, 2015*

**General Instructions**

Section references are to the Internal Revenue Code unless otherwise noted. Follow development instructions about developments affecting Form W-9 (such as regulations) located after the instructions at [www.irs.gov/efile](http://www.irs.gov/efile).

**Purpose of Form**

- An individual or entity (Form W-9 requester) who is required to file information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoptee taxpayer identification number (ATIN), or employer identification number (EIN). You must provide your correct TIN to the requester. If you are an individual, you are not required to provide your TIN to the requester if you are an exempt payee, but are not limited to, the following:
- Form 1099-BIT (interest earned or paid)
  - Form 1099-DIV (dividends, including those from stocks or mutual funds)
  - Form 1099-MISC (miscellaneous types of income, prizes, awards, or gross proceeds)
  - Form 1099-S (stock or mutual fund sales and certain other transactions by brokers)
  - Form 1099-5 (gross proceeds from real estate transactions)
  - Form 1099-K (merchant card and third party network transactions)
- If you do not return Form W-9 to the requester with a TIN, you may be subject to backup withholding. See What is backup withholding? on page 2.
1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued).
2. Certify that you are not subject to backup withholding, or applicable, you are also certifying that as a U.S. person, you are not subject to the withholding tax on foreign partners' share of effectively connected income, and
3. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from FATCA reporting, is correct. See What is FATCA reporting? on page 3 for further information.





Jimmie Schindewolf, P.E.  
General Manager

January 2, 2007

BOARD OF DIRECTORS  
Alan J. Rendt, President  
Kelly Fossler, Vice President  
Lenox A. Sigler, Secretary  
James D. Pulliam, Treasurer  
Ron Graham, Asst. Secretary

Mark T. Stendahl, P.E., Vice President  
Pate Engineers, Inc.  
13333 Northwest Freeway, #300  
Houston, Texas 77040

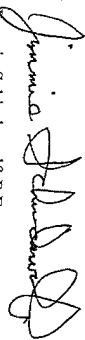
Re: Amended and Restated Agreement For Professional Engineering Services

Dear Mr. Stendahl:

Transmitted herewith please find one fully executed duplicate original of the Amended and Restated Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and Pate Engineers, Inc. This Agreement was approved by the Authority Board of Directors at the November 6, 2006, Board meeting. I am also sending one duplicate original to Tom Rolan (Authority Program Director), one to Robin Bobbitt (Authority General Counsel), and I am retaining two for the Authority contract file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

  
Jimmie Schindewolf, P.E.  
General Manager

JAS/lr

Attachment

Cc: Robin S. Bobbitt, Johnson Radcliff Petrov & Bobbitt PLLC - w/attachment  
Tom Rolan, P.E., Turner Collie & Braden, Inc. - w/attachment  
Showri Nandagiri, P.E., NHCROWA  
Cyndi Phunkert, NHCROWA - w/attachment

**AMENDED AND RESTATED AGREEMENT  
FOR PROFESSIONAL ENGINEERING SERVICES**

(Pate Engineers, Inc.)

THE STATE OF TEXAS       §  
  §  
COUNTY OF HARRIS       §

THIS AMENDED AND RESTATED AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Amended Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and Pate Engineers, Inc. (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects;

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

The Authority and the Engineer have previously entered into an Agreement for Professional Engineering Services; however, due to changed circumstances and the need for clarification and revision, the Authority and the Engineer desire to enter into this Amended Agreement;

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION 1**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected in the detailed Scope of Services attached as **Appendices A** and **A-1** and that are specifically identified in the Scope of Services that will accompany each Work Authorization issued by the General Manager.
  
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional

services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).

3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.
4. "Design Phase Agreed Estimate" shall mean the estimate of probable Construction Cost for a Construction Package developed at the completion of the approved Preliminary Engineering Phase, updated at the completion of the Design Phase and agreed to in writing by the General Manager and the Engineer.
5. "Preliminary Phase Agreed Estimate" shall mean the estimate of probable Construction Cost developed and agreed to in writing by the General Manager and the Engineer prior to commencing work on the Preliminary Engineering Phase of the Project. This agreed estimate applies only to the Preliminary Engineering Phase.
6. "Program Manager" shall mean the Authority's manager of its water supply program.
7. "Project" shall mean a design and/or construction project of the Authority authorized by the General Manager through the issuance of a Work Authorization.

## SECTION II

### CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Amended Agreement, the General Manager of the Authority or his designee (hereinafter the "General Manager") may deliver to the Engineer written authorization (hereinafter known as "Work Authorization") in accordance with this Section for the performance of certain professional services with regard to specified Authority projects, which services the Engineer shall then perform in accordance with this Amended Agreement. The General Manager may authorize the Engineer to provide all or any of the engineering and related services that are listed in **Appendices A and A-1**, attached hereto and made a part hereof.

The Authority shall have no obligation to pay for any services hereunder that have been rendered without the prior Work Authorization of the General Manager. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the Authority with progress reports at such times and in such manner as may be requested by the General Manager. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the General Manager as soon as possible.

**SECTION III**  
**TIME OF PERFORMANCE**

Upon receipt of a Work Authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The Authority shall have no obligation to pay for a service performed after the required completion date for same, as set forth in its Work Authorization, except to the extent the date for required completion is extended and continuation of such service is approved by the General Manager.

**SECTION IV**  
**THE ENGINEER'S COMPENSATION**

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blueprint drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof, costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Amended Agreement are described as follows:

Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in **Appendix C**.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.

For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.

The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### **SECTION V**

##### **TIME OF PAYMENT**

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Amended Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager", in a form suitable to the Authority, setting forth the services provided under this Amended Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person

performing the services and countersigned by his/her supervisor certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Amended Agreement have been performed. Within forty-five (45) days after the performance of all services provided for in this Amended Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Amended Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

#### **SECTION VI TERMINATION**

Either party may terminate this Amended Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Amended Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Amended Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Amended Agreement, less such payments on account of the charges as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Amended Agreement shall be delivered to the Authority when and if this Amended Agreement is terminated.

#### **SECTION VII NOTICE**

Any notice required to be given under the provisions of this Amended Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Amended Agreement, all notices shall be delivered to the following addresses:

To the Engineer: Pate Engineers, Inc.  
13333 Northwest Freeway, #300  
Houston, Texas 77040

Attention: Mark Stendahl, P.E., Vice President

To the Authority: North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Attention: General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

**SECTION VIII  
SUCCESSORS AND ASSIGNS**

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Amended Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Amended Agreement. Neither the Authority nor the Engineer shall assign, sublet, or transfer its or his/her interest in this Amended Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

**SECTION IX  
PUBLIC CONTACT**

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Amended Agreement or any requested service shall be referred to the General Manager.

**SECTION X  
COMPLIANCE AND STANDARDS**

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the



Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### **SECTION XI**

#### **LICENSE REQUIREMENTS**

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Amended Agreement.

#### **SECTION XII**

#### **INSURANCE AND INDEMNIFICATION**

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, equal to \$1,000,000, from claims for property damage at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Amended Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Amended Agreement and that of its subcontractors or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subcontractors (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.

SECTION XIII  
**OWNERSHIP OF PLANS, COPYRIGHT, AND  
OTHER INTELLECTUAL PROPERTY**

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Amended Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Amended Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Amended Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Amended Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Amended Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Amended Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement.

Copies of all complete or partially complete information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes therefor, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement, shall also be delivered

by the Engineer to the General Manager when and if this Amended Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

#### **SECTION XIV**

#### **MODIFICATIONS**

This instrument contains the entire Amended Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

#### **SECTION XV**

#### **AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Amended Agreement and all questions as to the acceptable fulfillment of this Amended Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Amended Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Amended Agreement.

#### **SECTION XVI**

#### **SEVERABILITY**

Any provision or part of this Amended Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Amended Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**SECTION XVII**

**MERGER**

The Parties agree that this Amended Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Amended Agreement.

[The remainder of this page intentionally left blank.]

**SECTION XVIII**  
**EXECUTION**

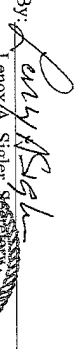
The Authority executes this Amended Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Amended Agreement shall not become effective until executed by all parties hereto.

NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

By:   
Alan J. Rendt, President

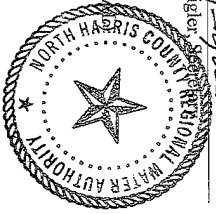
Date Signed: 1-02-07

ATTEST:

By:   
Lenox A. Sigler


(AUTHORITY SECRETARY)

APPROVED:

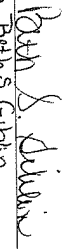


By:   
Jannette Schindewolf, P.E.  
General Manager

PATHE ENGINEERS, INC.

By:   
Name: Mark I. Strickland, Inc.  
Title: Vice President  
Date Signed: December 22, 2016

ATTEST:

By:   
Name: Beth S. Giblin  
Title: Asst. Secretary

**APPENDIX A**  
**SCOPE OF SERVICES**

**(Pate Engineers, Inc.)**

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see **Appendix A-1**) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnects, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.

APPENDIX A-1  
SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES  
(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

1. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternative water line alignments considering all relevant factors and prepare schematic layouts for each alternative route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review.
  - i. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.



2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues

- associated with such submittals within fourteen (14) calendar days of receipt of submittals from the Program Manager.
- e. Prepare revisions to the contract documents (*i.e.*, change orders) at no charge to the Authority when such change orders are required to make clarifications, correct discrepancies, errors or omissions to the contract documents.
  - f. When requested by the Program Manager, evaluate contractor changes and cost proposals and recommend action to the Program Manager.
  - g. Make monthly site visits to the Project site to observe the progress and quality of the executed work. Such site visits are to be coordinated with the Program Manager and a site visit report shall be submitted to the Program Manager after each such site visit, indicating observations related to the executed work.
  - h. Attend final Project walkthrough.
  - i. Prepare "record drawings" indicating changes to the contract drawings and showing significant changes made to the work during the construction of the Project. Such changes will be based upon marked-up "record drawings" furnished to the Engineer by the Program Manager and the construction contractor.

**APPENDIX B**  
**HOURLY RATE SHEET**  
(Pate Engineers, Inc.)

Effective January 1, 2003

**Engineering**

Principal .....	\$230.00/hr
Senior Project Manager .....	\$145.00/hr
Project Manager .....	\$128.00/hr
Project Engineer .....	\$110.00/hr
Design Engineer .....	\$ 90.00/hr
Senior Designer .....	\$110.00/hr
CADD Technician/Draftsman .....	\$ 80.00/hr
Construction Observer .....	\$ 75.00/hr
Clerical .....	\$ 60.00/hr

**Surveying**

Survey Manager .....	\$110.00/hr
Registered Professional Land Surveyor .....	\$ 8.00/hr
Survey Coordinator .....	\$ 75.00/hr
Survey Technician .....	\$ 60.00/hr
Clerical .....	\$ 45.00/hr
Conventional Survey Crew .....	\$120.00/hr
Robotic Station Survey Crew .....	\$140.00/hr
GPS (Global Positioning System) Crew .....	\$140.00/hr

Survey Crew rates are inclusive of all normal labor, material, equipment, vehicle, travel and incidental costs and are billed "portal to portal," for Harris and surrounding county areas. "Crew" as used herein includes a Senior Field Surveyor and additional personnel as assigned per task. Overtime rates, when required, would be invoiced at 1.50 times the listed rates. Expenses for substantial or special materials and/or services or expenses required for specific projects, (e.g., delivery charges, reproduction costs, special property identification markers, specialized vehicle and equipment rentals, subcontracted labor and equipment for clearing, charges by public and private utilities for pipeline probing, subcontracted services by abstracting and/or title companies) will be billed at cost. Certain Surveying Services are subject to State and Local Sales Taxes which will be included on the invoice, in addition to normal billing rates and services charges.

**Notes:**

- (1) Additional classifications and subsequent year rates must be approved in writing by the General Manager.
- (2) Subcontractant costs and other miscellaneous expenses as approved by the General Manager will be paid at cost plus 10%.

APPENDIX C

CITY OF HOUSTON CURVES FOR MEDIAN COMPENSATION

(Pate Engineers, Inc.)



**CITY OF HOUSTON**  
Public Works and Engineering  
Department

Leo P. Brown,

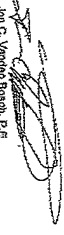
Mayor

John C. Vanden Boren, P.E.  
Public Works & Engineering  
Department  
Houston, Texas 77261-1882  
T: 713.857.0037  
F: 713.857.0510  
M: 281.420.2432

July 18, 2002

Christina M. Lindzey, Executive Director  
Houston - CEO  
2020 Kemp Loop West, Suite 240  
Houston, Texas 77018

Dear Ms. Lindzey:  
PW&E has adopted the revised Curves of Median Compensation attached hereto. These curves and/or the associated tables will be used for determining the engineering fees as appropriate in this Department until further notice.  
Sincerely,

  
John C. Vanden Boren, P.E.  
Director  
Department of Public Works and Engineering

CC: Stewart Nandighi, P.E.  
John Taylor  
Eric Dyer  
Auditor Department  
Kleinke Modisette - Building Services Department

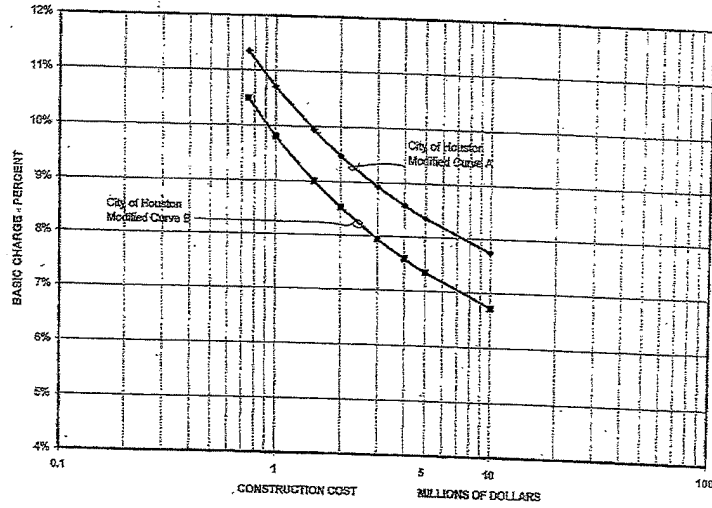
Owner/Agency: Bruce Rios, Carol M. Sweeney, Mark Gaudin, Ada Gomez, Akira Yamada, Mark A. EBB, Dan Keller, Gaudin/Vaquero, Cesar Alvarez  
Name of Public Action: City of Houston, 1400 McKinney Street, Suite 2100, Houston, TX 77002

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

Curves of Median Compensation  
Curves A and B

*Shawn MacLight*  
Shawn MacLight, P.E.  
Deputy Director

*John C. Vanden Bosch*  
John C. Vanden Bosch, P.E.  
Director



MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Conversion In Millions	Percent	Fee	Cost of Conversion In Millions	Percent	Fee		
0.750	11.947%	\$85,000.31	0.750	10.483%	\$78,000.94		
0.775	11.970%	\$87,330.27	0.775	10.494%	\$79,365.40		
0.800	11.993%	\$89,660.23	0.800	10.505%	\$80,730.86		
0.825	12.016%	\$91,990.19	0.825	10.516%	\$82,096.32		
0.850	12.039%	\$94,320.15	0.850	10.527%	\$83,461.78		
0.875	12.062%	\$96,650.11	0.875	10.538%	\$84,827.24		
0.900	12.085%	\$98,980.07	0.900	10.549%	\$86,192.70		
0.925	12.108%	\$101,310.03	0.925	10.560%	\$87,558.16		
0.950	12.131%	\$103,640.00	0.950	10.571%	\$88,923.62		
0.975	12.154%	\$105,970.00	0.975	10.582%	\$90,289.08		
1.000	12.177%	\$108,300.00	1.000	10.593%	\$91,654.54		
1.025	12.200%	\$110,630.00	1.025	10.604%	\$93,020.00		
1.050	12.223%	\$112,960.00	1.050	10.615%	\$94,385.46		
1.075	12.246%	\$115,290.00	1.075	10.626%	\$95,750.92		
1.100	12.269%	\$117,620.00	1.100	10.637%	\$97,116.38		
1.125	12.292%	\$119,950.00	1.125	10.648%	\$98,481.84		
1.150	12.315%	\$122,280.00	1.150	10.659%	\$99,847.30		
1.175	12.338%	\$124,610.00	1.175	10.670%	\$101,212.76		
1.200	12.361%	\$126,940.00	1.200	10.681%	\$102,578.22		
1.225	12.384%	\$129,270.00	1.225	10.692%	\$103,943.68		
1.250	12.407%	\$131,600.00	1.250	10.703%	\$105,309.14		
1.275	12.430%	\$133,930.00	1.275	10.714%	\$106,674.60		
1.300	12.453%	\$136,260.00	1.300	10.725%	\$108,040.06		
1.325	12.476%	\$138,590.00	1.325	10.736%	\$109,405.52		
1.350	12.499%	\$140,920.00	1.350	10.747%	\$110,770.98		
1.375	12.522%	\$143,250.00	1.375	10.758%	\$112,136.44		
1.400	12.545%	\$145,580.00	1.400	10.769%	\$113,501.90		
1.425	12.568%	\$147,910.00	1.425	10.780%	\$114,867.36		
1.450	12.591%	\$150,240.00	1.450	10.791%	\$116,232.82		
1.475	12.614%	\$152,570.00	1.475	10.802%	\$117,598.28		
1.500	12.637%	\$154,900.00	1.500	10.813%	\$118,963.74		
1.525	12.660%	\$157,230.00	1.525	10.824%	\$120,329.20		
1.550	12.683%	\$159,560.00	1.550	10.835%	\$121,694.66		
1.575	12.706%	\$161,890.00	1.575	10.846%	\$123,060.12		
1.600	12.729%	\$164,220.00	1.600	10.857%	\$124,425.58		
1.625	12.752%	\$166,550.00	1.625	10.868%	\$125,791.04		
1.650	12.775%	\$168,880.00	1.650	10.879%	\$127,156.50		
1.675	12.798%	\$171,210.00	1.675	10.890%	\$128,521.96		
1.700	12.821%	\$173,540.00	1.700	10.901%	\$129,887.42		
1.725	12.844%	\$175,870.00	1.725	10.912%	\$131,252.88		
1.750	12.867%	\$178,200.00	1.750	10.923%	\$132,618.34		
1.775	12.890%	\$180,530.00	1.775	10.934%	\$133,983.80		
1.800	12.913%	\$182,860.00	1.800	10.945%	\$135,349.26		
1.825	12.936%	\$185,190.00	1.825	10.956%	\$136,714.72		
1.850	12.959%	\$187,520.00	1.850	10.967%	\$138,080.18		
1.875	12.982%	\$189,850.00	1.875	10.978%	\$139,445.64		
1.900	13.005%	\$192,180.00	1.900	10.989%	\$140,811.10		

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
1,929	0.541%	\$193,056.17	1,925	0.893%	\$185,216.08
1,950	0.521%	\$195,098.33	1,900	0.823%	\$195,091.44
2,000	0.490%	\$198,782.79	1,975	0.842%	\$193,702.07
2,050	0.460%	\$202,467.25	2,000	0.822%	\$192,410.01
2,088	0.449%	\$191,650.78	2,025	0.843%	\$178,407.38
2,090	0.449%	\$193,629.37	2,050	0.843%	\$178,407.38
2,078	0.457%	\$185,018.48	2,075	0.844%	\$176,630.12
2,100	0.440%	\$197,091.09	2,100	0.840%	\$177,366.74
2,128	0.382%	\$199,693.21	2,125	0.810%	\$180,913.69
2,178	0.349%	\$201,582.37	2,175	0.839%	\$182,778.41
2,200	0.340%	\$206,616.43	2,200	0.875%	\$184,421.88
2,225	0.326%	\$207,486.21	2,225	0.869%	\$185,947.54
2,250	0.300%	\$209,459.74	2,250	0.841%	\$187,090.81
2,275	0.293%	\$211,452.05	2,275	0.820%	\$188,392.03
2,300	0.276%	\$213,383.18	2,300	0.809%	\$189,160.06
2,350	0.248%	\$217,310.03	2,350	0.827%	\$192,079.44
2,375	0.233%	\$218,278.81	2,375	0.828%	\$194,512.30
2,400	0.218%	\$221,238.53	2,400	0.846%	\$197,016.18
2,425	0.204%	\$223,182.23	2,425	0.831%	\$199,613.56
2,450	0.192%	\$225,143.54	2,450	0.817%	\$201,580.90
2,475	0.181%	\$227,113.48	2,475	0.804%	\$203,548.24
2,500	0.162%	\$229,047.48	2,500	0.168%	\$204,698.58
2,525	0.145%	\$230,956.37	2,525	0.174%	\$205,387.29
2,550	0.138%	\$232,841.37	2,550	0.160%	\$208,075.83
2,575	0.122%	\$234,696.52	2,575	0.149%	\$209,762.30
2,600	0.109%	\$236,527.83	2,600	0.143%	\$211,467.10
2,625	0.100%	\$238,339.30	2,625	0.138%	\$213,190.48
2,650	0.093%	\$240,127.05	2,650	0.108%	\$214,841.28
2,675	0.071%	\$242,644.01	2,675	0.093%	\$216,490.84
2,700	0.060%	\$244,612.73	2,700	0.090%	\$218,188.27
2,725	0.049%	\$246,414.23	2,725	0.083%	\$219,910.34
2,750	0.039%	\$248,444.84	2,750	0.079%	\$221,650.34
2,775	0.030%	\$249,794.33	2,775	0.074%	\$223,408.38
2,800	0.024%	\$251,464.84	2,800	0.070%	\$225,184.40
2,825	0.011%	\$252,203.17	2,825	0.051%	\$226,981.65
2,850	0.008%	\$254,128.02	2,850	0.019%	\$228,690.82
2,875	0.008%	\$256,164.27	2,875	0.007%	\$229,164.35
2,900	0.008%	\$258,076.03	2,900	0.006%	\$229,864.28
2,925	0.006%	\$260,001.02	2,925	0.005%	\$231,020.53
2,950	0.005%	\$261,944.40	2,950	0.004%	\$232,143.80
2,975	0.003%	\$263,904.57	2,975	0.003%	\$233,082.62
3,000	0.002%	\$265,974.05	3,000	0.002%	\$233,612.30
3,025	0.002%	\$268,058.57	3,025	0.002%	\$233,827.16
3,050	0.002%	\$271,601.62	3,050	0.001%	\$234,462.35
3,075	0.001%	\$273,418.28	3,075	0.000%	\$234,150.89



MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
3.100	0.881%	\$276,923.41	3.100	7.893%	\$244,700.37
3.125	0.871%	\$271,732.18	3.125	7.888%	\$246,488.23
3.150	0.862%	\$266,540.95	3.150	7.883%	\$248,280.09
3.175	0.853%	\$261,349.72	3.175	7.878%	\$249,998.95
3.200	0.843%	\$256,158.49	3.200	7.889%	\$251,738.80
3.225	0.833%	\$250,967.26	3.225	7.865%	\$253,028.70
3.250	0.823%	\$245,776.03	3.250	7.898%	\$254,072.66
3.275	0.814%	\$240,584.80	3.275	7.882%	\$255,116.62
3.300	0.805%	\$235,393.57	3.300	7.877%	\$256,160.58
3.325	0.795%	\$230,202.34	3.325	7.872%	\$257,204.54
3.350	0.786%	\$225,011.11	3.350	7.708%	\$258,128.51
3.375	0.776%	\$219,819.88	3.375	7.780%	\$259,052.47
3.400	0.769%	\$214,628.65	3.400	7.780%	\$260,076.43
3.425	0.760%	\$209,437.42	3.425	7.771%	\$261,100.39
3.450	0.751%	\$204,246.19	3.450	7.782%	\$262,124.35
3.475	0.742%	\$199,054.96	3.475	7.782%	\$263,148.31
3.500	0.733%	\$193,863.73	3.500	7.782%	\$264,172.27
3.525	0.724%	\$188,672.50	3.525	7.782%	\$265,196.23
3.550	0.715%	\$183,481.27	3.550	7.782%	\$266,220.19
3.575	0.706%	\$178,290.04	3.575	7.782%	\$267,244.15
3.600	0.697%	\$173,098.81	3.600	7.782%	\$268,268.11
3.625	0.688%	\$167,907.58	3.625	7.782%	\$269,292.07
3.650	0.679%	\$162,716.35	3.650	7.782%	\$270,316.03
3.675	0.670%	\$157,525.12	3.675	7.782%	\$271,340.00
3.700	0.661%	\$152,333.89	3.700	7.782%	\$272,363.96
3.725	0.652%	\$147,142.66	3.725	7.782%	\$273,387.92
3.750	0.643%	\$141,951.43	3.750	7.782%	\$274,411.88
3.775	0.634%	\$136,760.20	3.775	7.782%	\$275,435.84
3.800	0.625%	\$131,568.97	3.800	7.782%	\$276,459.80
3.825	0.616%	\$126,377.74	3.825	7.782%	\$277,483.76
3.850	0.607%	\$121,186.51	3.850	7.782%	\$278,507.72
3.875	0.598%	\$116,095.28	3.875	7.782%	\$279,531.68
3.900	0.589%	\$110,904.05	3.900	7.782%	\$280,555.64
3.925	0.580%	\$105,712.82	3.925	7.782%	\$281,579.60
3.950	0.571%	\$100,521.59	3.950	7.782%	\$282,603.56
3.975	0.562%	\$95,330.36	3.975	7.782%	\$283,627.52
4.000	0.553%	\$90,139.13	4.000	7.782%	\$284,651.48
4.025	0.544%	\$84,947.90	4.025	7.782%	\$285,675.44
4.050	0.535%	\$79,756.67	4.050	7.782%	\$286,699.40
4.075	0.526%	\$74,565.44	4.075	7.782%	\$287,723.36
4.100	0.517%	\$69,374.21	4.100	7.782%	\$288,747.32
4.125	0.508%	\$64,182.98	4.125	7.782%	\$289,771.28
4.150	0.499%	\$59,091.75	4.150	7.782%	\$290,795.24
4.175	0.490%	\$53,900.52	4.175	7.782%	\$291,819.20
4.200	0.481%	\$48,709.29	4.200	7.782%	\$292,843.16
4.225	0.472%	\$43,518.06	4.225	7.782%	\$293,867.12
4.250	0.463%	\$38,326.83	4.250	7.782%	\$294,891.08

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MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Contribution In Millions	Percent	Fee	Cost of Contribution In Millions	Percent	Fee
4.275	0.608%	\$362,786.18	4.275	7.610%	\$321,088.76
4.300	0.609%	\$363,606.48	4.300	7.617%	\$322,091.01
4.325	0.610%	\$364,427.00	4.325	7.624%	\$323,093.26
4.350	0.611%	\$365,247.83	4.350	7.631%	\$324,095.51
4.375	0.612%	\$366,068.66	4.375	7.638%	\$325,097.76
4.400	0.613%	\$366,889.49	4.400	7.645%	\$326,099.99
4.425	0.614%	\$367,710.32	4.425	7.652%	\$327,102.24
4.450	0.615%	\$368,531.15	4.450	7.659%	\$328,104.49
4.475	0.616%	\$369,351.98	4.475	7.666%	\$329,106.74
4.500	0.617%	\$370,172.81	4.500	7.673%	\$330,108.99
4.525	0.618%	\$370,993.64	4.525	7.680%	\$331,111.24
4.550	0.619%	\$371,814.47	4.550	7.687%	\$332,113.49
4.575	0.620%	\$372,635.30	4.575	7.694%	\$333,115.74
4.600	0.621%	\$373,456.13	4.600	7.701%	\$334,117.99
4.625	0.622%	\$374,276.96	4.625	7.708%	\$335,120.24
4.650	0.623%	\$375,097.79	4.650	7.715%	\$336,122.49
4.675	0.624%	\$375,918.62	4.675	7.722%	\$337,124.74
4.700	0.625%	\$376,739.45	4.700	7.729%	\$338,126.99
4.725	0.626%	\$377,560.28	4.725	7.736%	\$339,129.24
4.750	0.627%	\$378,381.11	4.750	7.743%	\$340,131.49
4.775	0.628%	\$379,201.94	4.775	7.750%	\$341,133.74
4.800	0.629%	\$380,022.77	4.800	7.757%	\$342,135.99
4.825	0.630%	\$380,843.60	4.825	7.764%	\$343,138.24
4.850	0.631%	\$381,664.43	4.850	7.771%	\$344,140.49
4.875	0.632%	\$382,485.26	4.875	7.778%	\$345,142.74
4.900	0.633%	\$383,306.09	4.900	7.785%	\$346,144.99
4.925	0.634%	\$384,126.92	4.925	7.792%	\$347,147.24
4.950	0.635%	\$384,947.75	4.950	7.799%	\$348,149.49
4.975	0.636%	\$385,768.58	4.975	7.806%	\$349,151.74
5.000	0.637%	\$386,589.41	5.000	7.813%	\$350,153.99
5.025	0.638%	\$387,410.24	5.025	7.820%	\$351,156.24
5.050	0.639%	\$388,231.07	5.050	7.827%	\$352,158.49
5.075	0.640%	\$389,051.90	5.075	7.834%	\$353,160.74
5.100	0.641%	\$389,872.73	5.100	7.841%	\$354,162.99
5.125	0.642%	\$390,693.56	5.125	7.848%	\$355,165.24
5.150	0.643%	\$391,514.39	5.150	7.855%	\$356,167.49
5.175	0.644%	\$392,335.22	5.175	7.862%	\$357,169.74
5.200	0.645%	\$393,156.05	5.200	7.869%	\$358,171.99
5.225	0.646%	\$393,976.88	5.225	7.876%	\$359,174.24
5.250	0.647%	\$394,797.71	5.250	7.883%	\$360,176.49
5.275	0.648%	\$395,618.54	5.275	7.890%	\$361,178.74
5.300	0.649%	\$396,439.37	5.300	7.897%	\$362,180.99
5.325	0.650%	\$397,260.20	5.325	7.904%	\$363,183.24
5.350	0.651%	\$398,081.03	5.350	7.911%	\$364,185.49
5.375	0.652%	\$398,901.86	5.375	7.918%	\$365,187.74
5.400	0.653%	\$399,722.69	5.400	7.925%	\$366,189.99
5.425	0.654%	\$400,543.52	5.425	7.932%	\$367,192.24
5.450	0.655%	\$401,364.35	5.450	7.939%	\$368,194.49
5.475	0.656%	\$402,185.18	5.475	7.946%	\$369,196.74
5.500	0.657%	\$403,006.01	5.500	7.953%	\$370,198.99
5.525	0.658%	\$403,826.84	5.525	7.960%	\$371,201.24
5.550	0.659%	\$404,647.67	5.550	7.967%	\$372,203.49
5.575	0.660%	\$405,468.50	5.575	7.974%	\$373,205.74
5.600	0.661%	\$406,289.33	5.600	7.981%	\$374,207.99
5.625	0.662%	\$407,110.16	5.625	7.988%	\$375,210.24
5.650	0.663%	\$407,930.99	5.650	7.995%	\$376,212.49
5.675	0.664%	\$408,751.82	5.675	8.002%	\$377,214.74
5.700	0.665%	\$409,572.65	5.700	8.009%	\$378,216.99
5.725	0.666%	\$410,393.48	5.725	8.016%	\$379,219.24
5.750	0.667%	\$411,214.31	5.750	8.023%	\$380,221.49
5.775	0.668%	\$412,035.14	5.775	8.030%	\$381,223.74
5.800	0.669%	\$412,855.97	5.800	8.037%	\$382,225.99
5.825	0.670%	\$413,676.80	5.825	8.044%	\$383,228.24
5.850	0.671%	\$414,497.63	5.850	8.051%	\$384,230.49
5.875	0.672%	\$415,318.46	5.875	8.058%	\$385,232.74
5.900	0.673%	\$416,139.29	5.900	8.065%	\$386,234.99
5.925	0.674%	\$416,960.12	5.925	8.072%	\$387,237.24
5.950	0.675%	\$417,780.95	5.950	8.079%	\$388,239.49
5.975	0.676%	\$418,601.78	5.975	8.086%	\$389,241.74
6.000	0.677%	\$419,422.61	6.000	8.093%	\$390,243.99
6.025	0.678%	\$420,243.44	6.025	8.100%	\$391,246.24
6.050	0.679%	\$421,064.27	6.050	8.107%	\$392,248.49
6.075	0.680%	\$421,885.10	6.075	8.114%	\$393,250.74
6.100	0.681%	\$422,705.93	6.100	8.121%	\$394,252.99
6.125	0.682%	\$423,526.76	6.125	8.128%	\$395,255.24
6.150	0.683%	\$424,347.59	6.150	8.135%	\$396,257.49
6.175	0.684%	\$425,168.42	6.175	8.142%	\$397,259.74
6.200	0.685%	\$425,989.25	6.200	8.149%	\$398,261.99
6.225	0.686%	\$426,810.08	6.225	8.156%	\$399,264.24
6.250	0.687%	\$427,630.91	6.250	8.163%	\$400,266.49
6.275	0.688%	\$428,451.74	6.275	8.170%	\$401,268.74
6.300	0.689%	\$429,272.57	6.300	8.177%	\$402,270.99
6.325	0.690%	\$430,093.40	6.325	8.184%	\$403,273.24
6.350	0.691%	\$430,914.23	6.350	8.191%	\$404,275.49
6.375	0.692%	\$431,735.06	6.375	8.198%	\$405,277.74
6.400	0.693%	\$432,555.89	6.400	8.205%	\$406,279.99
6.425	0.694%	\$433,376.72	6.425	8.212%	\$407,282.24
6.450	0.695%	\$434,197.55	6.450	8.219%	\$408,284.49
6.475	0.696%	\$435,018.38	6.475	8.226%	\$409,286.74
6.500	0.697%	\$435,839.21	6.500	8.233%	\$410,288.99
6.525	0.698%	\$436,660.04	6.525	8.240%	\$411,291.24
6.550	0.699%	\$437,480.87	6.550	8.247%	\$412,293.49
6.575	0.700%	\$438,301.70	6.575	8.254%	\$413,295.74
6.600	0.701%	\$439,122.53	6.600	8.261%	\$414,297.99
6.625	0.702%	\$439,943.36	6.625	8.268%	\$415,300.24
6.650	0.703%	\$440,764.19	6.650	8.275%	\$416,302.49
6.675	0.704%	\$441,585.02	6.675	8.282%	\$417,304.74
6.700	0.705%	\$442,405.85	6.700	8.289%	\$418,306.99
6.725	0.706%	\$443,226.68	6.725	8.296%	\$419,309.24
6.750	0.707%	\$444,047.51	6.750	8.303%	\$420,311.49
6.775	0.708%	\$444,868.34	6.775	8.310%	\$421,313.74
6.800	0.709%	\$445,689.17	6.800	8.317%	\$422,315.99
6.825	0.710%	\$446,510.00	6.825	8.324%	\$423,318.24
6.850	0.711%	\$447,330.83	6.850	8.331%	\$424,320.49
6.875	0.712%	\$448,151.66	6.875	8.338%	\$425,322.74
6.900	0.713%	\$448,972.49	6.900	8.345%	\$426,324.99
6.925	0.714%	\$449,793.32	6.925	8.352%	\$427,327.24
6.950	0.715%	\$450,614.15	6.950	8.359%	\$428,329.49
6.975	0.716%	\$451,434.98	6.975	8.366%	\$429,331.74
7.000	0.717%	\$452,255.81	7.000	8.373%	\$430,333.99
7.025	0.718%	\$453,076.64	7.025	8.380%	\$431,336.24
7.050	0.719%	\$453,897.47	7.050	8.387%	\$432,338.49
7.075	0.720%	\$454,718.30	7.075	8.394%	\$433,340.74
7.100	0.721%	\$455,539.13	7.100	8.401%	\$434,342.99
7.125	0.722%	\$456,360.00	7.125	8.408%	\$435,345.24
7.150	0.723%	\$457,180.87	7.150	8.415%	\$436,347.49
7.175	0.724%	\$458,001.70	7.175	8.422%	\$437,349.74
7.200	0.725%	\$458,822.53	7.200	8.429%	\$438,351.99
7.225	0.726%	\$459,643.36	7.225	8.436%	\$439,354.24
7.250	0.727%	\$460,464.19	7.250	8.443%	\$440,356.49
7.275	0.728%	\$461,285.02	7.275	8.450%	\$441,358.74
7.300	0.729%	\$462,105.85	7.300	8.457%	\$442,360.99
7.325	0.730%	\$462,926.68	7.325	8.464%	\$443,363.24
7.350	0.731%	\$463,747.51	7.350	8.471%	\$444,365.49
7.375	0.732%	\$464,568.34	7.375	8.478%	\$445,367.74
7.400	0.733%	\$465,389.17	7.400	8.485%	\$446,369.99
7.425	0.734%	\$466,210.00	7.425	8.492%	\$447,372.24
7.450	0.735%	\$467,030.83	7.450	8.499%	\$448,374.49
7.475	0.736%	\$467,851.66	7.475	8.506%	\$449,376.74
7.500	0.737%	\$468,672.49	7.500	8.513%	\$450,378.99
7.525	0.738%	\$469,493.32	7.525	8.520%	\$451,381.24
7.550	0.739%	\$470,314.15	7.550	8.527%	\$452,383.49
7.575	0.740%	\$471,134.98	7.575	8.534%	\$453,385.74
7.600	0.741%	\$471,955.81	7.600	8.541%	\$454,387.99
7.625	0.742%	\$472,776.64	7.625	8.548%	\$455,390.24
7.650	0.743%	\$473,597.47	7.650	8.555%	\$456,392.49
7.675	0.744%	\$474,418.30	7.675	8.562%	\$457,394.74
7.700	0.745%	\$475,239.13	7.700	8.569%	\$458,396.99
7.725	0.746%	\$476,060.00	7.725	8.576%	\$459,399.24
7.750	0.747%	\$476,880.87	7.750	8.583%	\$460,401.49
7.775	0.748%	\$477,701.70	7.775	8.590%	\$461,403.74
7.800	0.749%	\$478,522.53	7.800	8.597%	\$462,405.99
7.825	0.750%	\$479,343.36	7.825	8.604%	\$463,408.24
7.850	0.751%	\$480,164.19	7.850	8.611%	\$464,410.49
7.875	0.752%	\$480,985.02	7.875	8.618%	\$465,412.74
7.900	0.753%	\$481,805.85	7.900	8.625%	\$466,414.99
7.925	0.754%	\$482,626.68	7.925	8.632%	\$467,417.24
7.950	0.755%	\$483,447.51	7.950	8.639%	\$468,419.49
7.975	0.756%	\$484,268.34	7.975	8.646%	\$469,421.74
8.000	0.757%	\$485,089.17	8.000	8.653%	\$470,423.99
8.025	0.758%	\$485,910.00	8.025	8.660%	\$471,426.24
8.050	0.759%	\$486,730.83	8.050	8.667%	\$472,428.49
8.075	0.760%	\$487,551.66	8.075	8.674%	\$473,430.74
8.100	0.761%	\$488,372.49	8.100	8.681%	\$474,432.99
8.125	0.762%	\$489,193.32	8.125	8.688%	\$475,435.24
8.150	0.763%	\$490,014.15	8.150	8.695%	\$476,437.49
8.175	0.764%	\$490,834.98	8.175	8.702%	\$477,439.74
8.200	0.765%	\$491,655.81	8.200	8.709%	\$478,441.99
8.225	0.766%	\$492,476.64	8.225	8.716%	\$479,444.24
8.250	0.767%	\$493,297.47	8.250	8.723%	\$480,446.49
8.275	0.768%	\$494,118.30	8.275	8.730%	\$481,448.74
8.300	0.769%	\$494,939.13	8.300	8.737%	\$482,450.99
8.325	0.770%	\$495,760.00	8.325		

02/26/2002

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
6.410	8.289%	\$460,438.22	6.460	7.285%	\$368,288.40
6.470	8.285%	\$461,644.82	6.475	7.248%	\$369,660.67
6.500	8.280%	\$463,764.60	6.500	7.244%	\$370,411.88
6.525	8.246%	\$465,884.34	6.525	7.238%	\$370,972.08
6.550	8.242%	\$467,403.47	6.550	7.236%	\$371,532.74
6.575	8.237%	\$468,921.87	6.575	7.230%	\$372,092.22
6.600	8.233%	\$469,439.88	6.600	7.224%	\$372,651.48
6.625	8.229%	\$469,957.80	6.625	7.217%	\$373,210.52
6.650	8.224%	\$470,475.80	6.650	7.213%	\$373,769.64
6.675	8.220%	\$470,993.80	6.675	7.208%	\$374,328.86
6.700	8.218%	\$471,511.80	6.700	7.204%	\$374,888.18
6.725	8.212%	\$472,029.40	6.725	7.200%	\$375,447.50
6.750	8.209%	\$472,547.40	6.750	7.196%	\$376,006.82
6.775	8.203%	\$473,065.40	6.775	7.191%	\$376,566.14
6.800	8.200%	\$473,583.40	6.800	7.187%	\$377,125.46
6.825	8.195%	\$474,101.40	6.825	7.183%	\$377,684.78
6.850	8.191%	\$474,619.40	6.850	7.179%	\$378,244.10
6.875	8.187%	\$475,137.40	6.875	7.175%	\$378,803.42
6.900	8.183%	\$475,655.40	6.900	7.171%	\$379,362.74
6.925	8.179%	\$476,173.40	6.925	7.167%	\$379,922.06
6.950	8.175%	\$476,691.40	6.950	7.163%	\$380,481.38
6.975	8.171%	\$477,209.40	6.975	7.159%	\$381,040.70
7.000	8.167%	\$477,727.40	7.000	7.155%	\$381,600.02
7.025	8.164%	\$478,245.40	7.025	7.151%	\$382,159.34
7.050	8.160%	\$478,763.40	7.050	7.147%	\$382,718.66
7.075	8.156%	\$479,281.40	7.075	7.143%	\$383,277.98
7.100	8.152%	\$479,799.40	7.100	7.139%	\$383,837.30
7.125	8.148%	\$480,317.40	7.125	7.135%	\$384,396.62
7.150	8.144%	\$480,835.40	7.150	7.131%	\$384,955.94
7.175	8.140%	\$481,353.40	7.175	7.127%	\$385,515.26
7.200	8.136%	\$481,871.40	7.200	7.123%	\$386,074.58
7.225	8.132%	\$482,389.40	7.225	7.119%	\$386,633.90
7.250	8.128%	\$482,907.40	7.250	7.115%	\$387,193.22
7.275	8.124%	\$483,425.40	7.275	7.111%	\$387,752.54
7.300	8.120%	\$483,943.40	7.300	7.107%	\$388,311.86
7.325	8.116%	\$484,461.40	7.325	7.103%	\$388,871.18
7.350	8.112%	\$484,979.40	7.350	7.099%	\$389,430.50
7.375	8.108%	\$485,497.40	7.375	7.095%	\$389,989.82
7.400	8.104%	\$486,015.40	7.400	7.091%	\$390,549.14
7.425	8.100%	\$486,533.40	7.425	7.087%	\$391,108.46
7.450	8.096%	\$487,051.40	7.450	7.083%	\$391,667.78
7.475	8.092%	\$487,569.40	7.475	7.079%	\$392,227.10
7.500	8.088%	\$488,087.40	7.500	7.075%	\$392,786.42
7.525	8.084%	\$488,605.40	7.525	7.071%	\$393,345.74
7.550	8.080%	\$489,123.40	7.550	7.067%	\$393,905.06
7.575	8.076%	\$489,641.40	7.575	7.063%	\$394,464.38
7.600	8.080%	\$490,159.40	7.600	7.059%	\$395,023.70

B

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
0.820	0.077%	\$538,000.72	0.826	7.055%	\$488,071.34
0.890	0.079%	\$539,897.43	0.890	7.053%	\$490,607.12
0.970	0.079%	\$539,897.43	0.970	7.053%	\$471,142.41
1.050	0.080%	\$540,794.14	1.050	7.053%	\$451,677.70
1.130	0.081%	\$541,690.85	1.130	7.053%	\$432,212.99
1.210	0.081%	\$542,587.56	1.210	7.051%	\$412,748.28
1.290	0.080%	\$543,484.27	1.290	7.048%	\$393,283.57
1.370	0.079%	\$544,380.98	1.370	7.044%	\$373,818.86
1.450	0.078%	\$545,277.69	1.450	7.041%	\$354,354.15
1.530	0.077%	\$546,174.40	1.530	7.038%	\$334,889.44
1.610	0.076%	\$547,071.11	1.610	7.034%	\$315,424.73
1.690	0.075%	\$547,967.82	1.690	7.031%	\$295,960.02
1.770	0.074%	\$548,864.53	1.770	7.028%	\$276,495.31
1.850	0.073%	\$549,761.24	1.850	7.025%	\$257,030.60
1.930	0.072%	\$550,657.95	1.930	7.022%	\$237,565.89
2.010	0.071%	\$551,554.66	2.010	7.018%	\$218,101.18
2.090	0.070%	\$552,451.37	2.090	7.015%	\$198,636.47
2.170	0.069%	\$553,348.08	2.170	7.012%	\$179,171.76
2.250	0.068%	\$554,244.79	2.250	7.009%	\$159,707.05
2.330	0.067%	\$555,141.50	2.330	7.006%	\$140,242.34
2.410	0.066%	\$556,038.21	2.410	7.003%	\$120,777.63
2.490	0.065%	\$556,934.92	2.490	7.000%	\$101,312.92
2.570	0.064%	\$557,831.63	2.570	6.997%	\$81,848.21
2.650	0.063%	\$558,728.34	2.650	6.994%	\$62,383.50
2.730	0.062%	\$559,625.05	2.730	6.991%	\$42,918.79
2.810	0.061%	\$560,521.76	2.810	6.988%	\$23,454.08
2.890	0.060%	\$561,418.47	2.890	6.985%	\$4,989.37
2.970	0.059%	\$562,315.18	2.970	6.982%	\$-14,475.34
3.050	0.058%	\$563,211.89	3.050	6.979%	\$-33,961.03
3.130	0.057%	\$564,108.60	3.130	6.976%	\$-53,446.72
3.210	0.056%	\$565,005.31	3.210	6.973%	\$-72,932.41
3.290	0.055%	\$565,902.02	3.290	6.970%	\$-92,418.10
3.370	0.054%	\$566,798.73	3.370	6.967%	\$-111,903.79
3.450	0.053%	\$567,695.44	3.450	6.964%	\$-131,389.48
3.530	0.052%	\$568,592.15	3.530	6.961%	\$-150,875.17
3.610	0.051%	\$569,488.86	3.610	6.958%	\$-170,360.86
3.690	0.050%	\$570,385.57	3.690	6.955%	\$-189,846.55
3.770	0.049%	\$571,282.28	3.770	6.952%	\$-209,332.24
3.850	0.048%	\$572,178.99	3.850	6.949%	\$-228,817.93
3.930	0.047%	\$573,075.70	3.930	6.946%	\$-248,303.62
4.010	0.046%	\$573,972.41	4.010	6.943%	\$-267,789.31
4.090	0.045%	\$574,869.12	4.090	6.940%	\$-287,275.00
4.170	0.044%	\$575,765.83	4.170	6.937%	\$-306,760.69
4.250	0.043%	\$576,662.54	4.250	6.934%	\$-326,246.38
4.330	0.042%	\$577,559.25	4.330	6.931%	\$-345,732.07
4.410	0.041%	\$578,455.96	4.410	6.928%	\$-365,217.76
4.490	0.040%	\$579,352.67	4.490	6.925%	\$-384,703.45
4.570	0.039%	\$580,249.38	4.570	6.922%	\$-404,189.14
4.650	0.038%	\$581,146.09	4.650	6.919%	\$-423,674.83
4.730	0.037%	\$582,042.80	4.730	6.916%	\$-443,160.52
4.810	0.036%	\$582,939.51	4.810	6.913%	\$-462,646.21
4.890	0.035%	\$583,836.22	4.890	6.910%	\$-482,131.90
4.970	0.034%	\$584,732.93	4.970	6.907%	\$-501,617.59
5.050	0.033%	\$585,629.64	5.050	6.904%	\$-521,103.28
5.130	0.032%	\$586,526.35	5.130	6.901%	\$-540,588.97
5.210	0.031%	\$587,423.06	5.210	6.898%	\$-560,074.66
5.290	0.030%	\$588,319.77	5.290	6.895%	\$-579,560.35
5.370	0.029%	\$589,216.48	5.370	6.892%	\$-599,046.04
5.450	0.028%	\$590,113.19	5.450	6.889%	\$-618,531.73
5.530	0.027%	\$591,009.90	5.530	6.886%	\$-638,017.42
5.610	0.026%	\$591,906.61	5.610	6.883%	\$-657,503.11
5.690	0.025%	\$592,803.32	5.690	6.880%	\$-676,988.80
5.770	0.024%	\$593,700.03	5.770	6.877%	\$-696,474.49
5.850	0.023%	\$594,596.74	5.850	6.874%	\$-715,960.18
5.930	0.022%	\$595,493.45	5.930	6.871%	\$-735,445.87
6.010	0.021%	\$596,390.16	6.010	6.868%	\$-754,931.56
6.090	0.020%	\$597,286.87	6.090	6.865%	\$-774,417.25
6.170	0.019%	\$598,183.58	6.170	6.862%	\$-793,902.94
6.250	0.018%	\$599,080.29	6.250	6.859%	\$-813,388.63
6.330	0.017%	\$599,977.00	6.330	6.856%	\$-832,874.32
6.410	0.016%	\$600,873.71	6.410	6.853%	\$-852,360.01
6.490	0.015%	\$601,770.42	6.490	6.850%	\$-871,845.70
6.570	0.014%	\$602,667.13	6.570	6.847%	\$-891,331.39
6.650	0.013%	\$603,563.84	6.650	6.844%	\$-910,817.08
6.730	0.012%	\$604,460.55	6.730	6.841%	\$-930,302.77
6.810	0.011%	\$605,357.26	6.810	6.838%	\$-949,788.46
6.890	0.010%	\$606,253.97	6.890	6.835%	\$-969,274.15
6.970	0.009%	\$607,150.68	6.970	6.832%	\$-988,759.84
7.050	0.008%	\$608,047.39	7.050	6.829%	\$-1,008,245.53
7.130	0.007%	\$608,944.10	7.130	6.826%	\$-1,027,731.22
7.210	0.006%	\$609,840.81	7.210	6.823%	\$-1,047,216.91
7.290	0.005%	\$610,737.52	7.290	6.820%	\$-1,066,702.60
7.370	0.004%	\$611,634.23	7.370	6.817%	\$-1,086,188.29
7.450	0.003%	\$612,530.94	7.450	6.814%	\$-1,105,673.98
7.530	0.002%	\$613,427.65	7.530	6.811%	\$-1,125,159.67
7.610	0.001%	\$614,324.36	7.610	6.808%	\$-1,144,645.36
7.690	0.000%	\$615,221.07	7.690	6.805%	\$-1,164,131.05
7.770	0.000%	\$616,117.78	7.770	6.802%	\$-1,183,616.74
7.850	0.000%	\$617,014.49	7.850	6.799%	\$-1,203,102.43
7.930	0.000%	\$617,911.20	7.930	6.796%	\$-1,222,588.12
8.010	0.000%	\$618,807.91	8.010	6.793%	\$-1,242,073.81
8.090	0.000%	\$619,704.62	8.090	6.790%	\$-1,261,559.50
8.170	0.000%	\$620,601.33	8.170	6.787%	\$-1,281,045.19
8.250	0.000%	\$621,498.04	8.250	6.784%	\$-1,300,530.88
8.330	0.000%	\$622,394.75	8.330	6.781%	\$-1,320,016.57
8.410	0.000%	\$623,291.46	8.410	6.778%	\$-1,339,502.26
8.490	0.000%	\$624,188.17	8.490	6.775%	\$-1,358,987.95
8.570	0.000%	\$625,084.88	8.570	6.772%	\$-1,378,473.64
8.650	0.000%	\$625,981.59	8.650	6.769%	\$-1,397,959.33
8.730	0.000%	\$626,878.30	8.730	6.766%	\$-1,417,445.02
8.810	0.000%	\$627,775.01	8.810	6.763%	\$-1,436,930.71
8.890	0.000%	\$628,671.72	8.890	6.760%	\$-1,456,416.40
8.970	0.000%	\$629,568.43	8.970	6.757%	\$-1,475,902.09
9.050	0.000%	\$630,465.14	9.050	6.754%	\$-1,495,387.78
9.130	0.000%	\$631,361.85	9.130	6.751%	\$-1,514,873.47
9.210	0.000%	\$632,258.56	9.210	6.748%	\$-1,534,359.16
9.290	0.000%	\$633,155.27	9.290	6.745%	\$-1,553,844.85
9.370	0.000%	\$634,051.98	9.370	6.742%	\$-1,573,330.54
9.450	0.000%	\$634,948.69	9.450	6.739%	\$-1,592,816.23
9.530	0.000%	\$635,845.40	9.530	6.736%	\$-1,612,301.92
9.610	0.000%	\$636,742.11	9.610	6.733%	\$-1,631,787.61
9.690	0.000%	\$637,638.82	9.690	6.730%	\$-1,651,273.30
9.770	0.000%	\$638,535.53	9.770	6.727%	\$-1,670,758.99
9.850	0.000%	\$639,432.24	9.850	6.724%	\$-1,690,244.68
9.930	0.000%	\$640,328.95	9.930	6.721%	\$-1,709,730.37
10.010	0.000%	\$641,225.66	10.010	6.718%	\$-1,729,216.06
10.090	0.000%	\$642,122.37	10.090	6.715%	\$-1,748,701.75
10.170	0.000%	\$643,019.08	10.170	6.712%	\$-1,768,187.44
10.250	0.000%	\$643,915.79	10.250	6.709%	\$-1,787,673.13
10.330	0.000%	\$644,812.50	10.330	6.706%	\$-1,807,158.82
10.410	0.000%	\$645,709.21	10.410	6.703%	\$-1,826,644.51
10.490	0.000%	\$646,605.92	10.490	6.700%	\$-1,846,130.20
10.570	0.000%	\$647,502.63	10.570	6.697%	\$-1,865,615.89
10.650	0.000%	\$648,399.34	10.650	6.694%	\$-1,885,101.58
10.730	0.000%	\$649,296.05	10.730	6.691%	\$-1,904,587.27
10.810	0.000%	\$650,192.76	10.810	6.688%	\$-1,924,072.96
10.890	0.000%	\$651,089.47	10.890	6.685%	\$-1,943,558.65
10.970	0.000%	\$651,986.18	10.970	6.682%	\$-1,963,044.34
11.050	0.000%	\$652,882.89	11.050	6.679%	\$-1,982,530.03
11.130	0.000%	\$653,779.60	11.130	6.676%	\$-2,002,015.72
11.210	0.000%	\$654,676.31	11.210	6.673%	\$-2,021,501.41
11.290	0.000%	\$655,573.02	11.290	6.670%	\$-2,040,987.10
11.370	0.000%	\$656,469.73	11.370	6.667%	\$-2,060,472.79
11.450	0.000%	\$657,366.44	11.450	6.664%	\$-2,079,958.48
11.530	0.000%	\$658,263.15	11.530	6.661%	\$-2,099,444.17
11.610	0.000%	\$659,159.86	11.610	6.658%	\$-2,118,929.86
11.690	0.000%	\$660,056.57	11.690	6.655%	\$-2,138,415.55
11.770	0.000%	\$660,953.28	11.770	6.652%	\$-2,157,901.24
11.850	0.000%	\$661,849.99	11.850	6.649%	\$-2,177,386.93
11.930	0.000%	\$662,746.70	11.930	6.646%	\$-2,196,872.62
12.010	0.000%	\$663,643.41	12.010	6.643%	\$-2,216,358.31
12.090	0.000%	\$664,540.12	12.090	6.640%	\$-2,235,844.00
12.170	0.000%	\$665,436.83	12.170	6.637%	\$-2,255,329.69
12.250	0.000%	\$666,333.54	12.250	6.634%	\$-2,274,815.38
12.330	0.000%	\$667,230.25	12.330	6.631%	\$-2,294,301.07
12.410	0.000%	\$668,126.96	12.410	6.628%	\$-2,313,786.76
12.490	0.000%	\$669,023.67	12.490	6.625%	\$-2,333,272.45
12.570	0.000%	\$669,920.38	12.570	6.622%	\$-2,352,758.14
12.650	0.000%	\$670,817.09	12.650	6.619%	\$-2,372,243.83
12.730	0.000%	\$671,713.80	12.730	6.616%	\$-2,391,729.52
12.810	0.000%	\$672,610.51	12.810	6.613%	\$-2,411,215.21
12.890	0.000%	\$673,507.22	12.890	6.610%	\$-2,430,700.90
12.970	0.000%	\$674,403.93	12.970	6.607%	\$-2,450,186.59
13.050	0.000%	\$675,300.64	13.050	6.604%	\$-2,469,672.28
13.130	0.000%	\$676,197.35	13.130	6.601%	\$-2,489,157.97
13.210	0.000%	\$677,094.06	13.210	6.598%	\$-2,508,643.66
13.290	0.000%	\$677,990.77	13.290	6.595%	\$-2,528,129.35
13.370	0.000%	\$678,887.48	13.370	6.592%	\$-2,

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
7,000	7.935%	\$818,970.00	7,000	6.920%	\$839,788.08
7,625	7.933%	\$820,791.63	7,400	6.917%	\$841,281.49
7,660	7.930%	\$822,823.49	7,660	6.915%	\$842,798.53
7,700	7.928%	\$824,910.76	7,875	6.914%	\$844,317.18
7,825	7.926%	\$827,074.60	7,900	6.909%	\$845,837.18
7,900	7.925%	\$829,268.19	7,925	6.909%	\$847,358.33
7,975	7.924%	\$831,484.33	7,950	6.904%	\$848,880.84
8,000	7.917%	\$831,384.13	7,975	6.901%	\$850,404.84
8,025	7.915%	\$831,488.69	8,000	6.896%	\$851,930.44
8,050	7.912%	\$831,698.69	8,025	6.893%	\$853,457.42
8,075	7.909%	\$831,912.27	8,050	6.892%	\$854,985.69
8,100	7.904%	\$832,129.54	8,075	6.891%	\$856,515.18
8,125	7.902%	\$832,349.61	8,100	6.888%	\$858,045.87
8,150	7.900%	\$832,572.38	8,125	6.885%	\$859,577.68
8,176	7.897%	\$832,797.85	8,150	6.883%	\$861,110.61
8,200	7.894%	\$833,025.92	8,175	6.882%	\$862,644.67
8,225	7.892%	\$833,256.59	8,200	6.879%	\$864,179.87
8,250	7.889%	\$833,489.86	8,225	6.877%	\$865,716.22
8,276	7.887%	\$833,725.73	8,250	6.875%	\$867,253.73
8,300	7.884%	\$833,964.20	8,276	6.873%	\$868,792.40
8,325	7.882%	\$834,205.37	8,300	6.870%	\$870,332.20
8,350	7.880%	\$834,449.24	8,325	6.868%	\$871,873.13
8,375	7.877%	\$834,695.81	8,350	6.866%	\$873,415.20
8,400	7.874%	\$834,945.08	8,375	6.863%	\$874,958.43
8,425	7.872%	\$835,197.05	8,400	6.860%	\$876,502.83
8,450	7.870%	\$835,451.72	8,425	6.858%	\$878,048.38
8,475	7.868%	\$835,709.09	8,450	6.856%	\$879,595.08
8,500	7.866%	\$835,969.16	8,475	6.854%	\$881,142.93
8,525	7.863%	\$836,231.93	8,500	6.852%	\$882,691.93
8,550	7.861%	\$836,497.40	8,525	6.850%	\$884,242.08
8,575	7.859%	\$836,765.67	8,550	6.848%	\$885,793.38
8,600	7.857%	\$837,036.74	8,575	6.846%	\$887,345.83
8,625	7.854%	\$837,310.61	8,600	6.844%	\$888,899.43
8,650	7.852%	\$837,587.28	8,625	6.842%	\$890,454.18
8,675	7.850%	\$837,866.75	8,650	6.840%	\$892,009.98
8,700	7.848%	\$838,149.02	8,675	6.838%	\$893,566.93
8,725	7.846%	\$838,434.19	8,700	6.836%	\$895,125.03
8,750	7.844%	\$838,722.26	8,725	6.834%	\$896,684.28
8,775	7.842%	\$839,013.33	8,750	6.832%	\$898,244.68
8,800	7.840%	\$839,307.40	8,775	6.830%	\$899,806.23
8,825	7.838%	\$839,604.57	8,800	6.828%	\$901,368.93
8,850	7.836%	\$839,904.84	8,825	6.826%	\$902,932.78
8,875	7.834%	\$840,208.21	8,850	6.824%	\$904,497.78
8,900	7.832%	\$840,514.78	8,875	6.822%	\$906,063.93
8,925	7.830%	\$840,823.55	8,900	6.820%	\$907,631.23
8,950	7.828%	\$841,134.82	8,925	6.818%	\$909,199.68
8,975	7.826%	\$841,448.59	8,950	6.816%	\$910,769.28
9,000	7.824%	\$841,765.86	8,975	6.814%	\$912,339.93
9,025	7.822%	\$842,085.63	9,000	6.812%	\$913,911.73
9,050	7.820%	\$842,407.90	9,025	6.810%	\$915,484.68
9,075	7.818%	\$842,732.67	9,050	6.808%	\$917,058.78
9,100	7.816%	\$843,060.04	9,075	6.806%	\$918,633.93
9,125	7.814%	\$843,390.01	9,100	6.804%	\$920,210.23
9,150	7.812%	\$843,722.58	9,125	6.802%	\$921,787.68
9,176	7.810%	\$844,057.75	9,150	6.800%	\$923,366.28
9,200	7.807%	\$844,395.52	9,176	6.798%	\$924,945.93
9,225	7.805%	\$844,735.79	9,200	6.796%	\$926,526.63
9,250	7.803%	\$845,078.56	9,225	6.794%	\$928,108.38
9,276	7.801%	\$845,423.83	9,250	6.792%	\$929,691.18
9,300	7.800%	\$845,770.60	9,276	6.790%	\$931,275.03
9,325	7.800%	\$846,118.87	9,300	6.788%	\$932,859.93
9,350	7.800%	\$846,468.64	9,325	6.786%	\$934,445.98
9,375	7.800%	\$846,819.91	9,350	6.784%	\$936,033.18
9,400	7.800%	\$847,172.68	9,375	6.782%	\$937,621.43
9,425	7.800%	\$847,527.05	9,400	6.780%	\$939,210.73
9,450	7.800%	\$847,882.92	9,425	6.778%	\$940,801.18
9,475	7.800%	\$848,239.39	9,450	6.776%	\$942,392.78
9,500	7.800%	\$848,597.46	9,475	6.774%	\$943,985.43
9,525	7.800%	\$848,957.13	9,500	6.772%	\$945,579.13
9,550	7.800%	\$849,318.50	9,525	6.770%	\$947,173.88
9,575	7.800%	\$849,681.57	9,550	6.768%	\$948,769.68
9,600	7.800%	\$850,046.34	9,575	6.766%	\$950,366.53
9,625	7.800%	\$850,412.81	9,600	6.764%	\$951,964.43
9,650	7.800%	\$850,780.98	9,625	6.762%	\$953,563.38
9,675	7.800%	\$851,150.85	9,650	6.760%	\$955,163.38
9,700	7.800%	\$851,522.42	9,675	6.758%	\$956,764.43
9,725	7.800%	\$851,895.69	9,700	6.756%	\$958,366.53
9,750	7.800%	\$852,270.76	9,725	6.754%	\$960,000.73
9,775	7.800%	\$852,647.53	9,750	6.752%	\$961,636.13
9,800	7.800%	\$853,025.90	9,775	6.750%	\$963,272.73
9,825	7.800%	\$853,405.97	9,800	6.748%	\$964,910.43
9,850	7.800%	\$853,787.74	9,825	6.746%	\$966,549.23
9,875	7.800%	\$854,171.21	9,850	6.744%	\$968,189.13
9,900	7.800%	\$854,556.48	9,875	6.742%	\$969,830.18
9,925	7.800%	\$854,943.55	9,900	6.740%	\$971,472.38
9,950	7.800%	\$855,332.42	9,925	6.738%	\$973,115.63
9,975	7.800%	\$855,723.09	9,950	6.736%	\$974,760.03
10,000	7.800%	\$856,115.56	9,975	6.734%	\$976,406.53
10,025	7.800%	\$856,509.83	10,000	6.732%	\$978,054.13
10,050	7.800%	\$856,905.90	10,025	6.730%	\$979,702.83
10,075	7.800%	\$857,303.77	10,050	6.728%	\$981,352.63
10,100	7.800%	\$857,703.44	10,075	6.726%	\$983,003.53
10,125	7.800%	\$858,104.91	10,100	6.724%	\$984,655.63
10,150	7.800%	\$858,508.18	10,125	6.722%	\$986,308.83
10,176	7.800%	\$858,913.35	10,150	6.720%	\$987,963.13
10,200	7.800%	\$859,319.52	10,176	6.718%	\$989,618.53
10,225	7.800%	\$859,726.79	10,200	6.716%	\$991,275.03
10,250	7.800%	\$860,135.16	10,225	6.714%	\$992,932.63
10,276	7.800%	\$860,544.63	10,250	6.712%	\$994,591.33
10,300	7.800%	\$860,955.20	10,276	6.710%	\$996,251.13
10,325	7.800%	\$861,366.87	10,300	6.708%	\$997,912.03
10,350	7.800%	\$861,779.64	10,325	6.706%	\$999,574.03
10,375	7.800%	\$862,193.51	10,350	6.704%	\$1,001,237.13
10,400	7.800%	\$862,608.58	10,375	6.702%	\$1,002,901.33
10,425	7.800%	\$863,024.85	10,400	6.700%	\$1,004,566.63
10,450	7.800%	\$863,442.32	10,425	6.698%	\$1,006,233.03
10,475	7.800%	\$863,861.09	10,450	6.696%	\$1,007,899.53
10,500	7.800%	\$864,281.26	10,475	6.694%	\$1,009,567.03
10,525	7.800%	\$864,702.83	10,500	6.692%	\$1,011,235.53
10,550	7.800%	\$865,125.80	10,525	6.690%	\$1,012,905.03
10,575	7.800%	\$865,550.17	10,550	6.688%	\$1,014,575.53
10,600	7.800%	\$865,975.94	10,575	6.686%	\$1,016,247.03
10,625	7.800%	\$866,403.11	10,600	6.684%	\$1,017,919.53
10,650	7.800%	\$866,831.78	10,625	6.682%	\$1,019,593.03
10,675	7.800%	\$867,261.95	10,650	6.680%	\$1,021,268.53
10,700	7.800%	\$867,693.62	10,675	6.678%	\$1,022,945.03
10,725	7.800%	\$868,126.89	10,700	6.676%	\$1,024,622.53
10,750	7.800%	\$868,561.76	10,725	6.674%	\$1,026,301.03
10,775	7.800%	\$868,998.23	10,750	6.672%	\$1,027,980.53
10,800	7.800%	\$869,436.30	10,775	6.670%	\$1,029,661.03
10,825	7.800%	\$869,876.07	10,800	6.668%	\$1,031,342.53
10,850	7.800%	\$870,317.44	10,825	6.666%	\$1,033,025.03
10,875	7.800%	\$870,760.41	10,850	6.664%	\$1,034,708.53
10,900	7.800%	\$871,205.08	10,875	6.662%	\$1,036,393.03
10,925	7.800%	\$871,651.45	10,900	6.660%	\$1,038,078.53
10,950	7.800%	\$872,099.42	10,925	6.658%	\$1,039,765.03
10,975	7.800%	\$872,549.09	10,950	6.656%	\$1,041,452.53
11,000	7.800%	\$873,000.46	10,975	6.654%	\$1,043,141.03
11,025	7.800%	\$873,453.53	11,000	6.652%	\$1,044,830.53
11,050	7.800%	\$873,908.30	11,025	6.650%	\$1,046,521.03
11,075	7.800%	\$874,364.77	11,050	6.648%	\$1,048,212.53
11,100	7.800%	\$874,822.94	11,075	6.646%	\$1,049,905.03
11,125	7.800%	\$875,282.81	11,100	6.644%	\$1,051,598.53
11,150	7.800%	\$875,744.38	11,125	6.642%	\$1,053,293.03
11,176	7.800%	\$876,207.65	11,150	6.640%	\$1,054,988.53
11,200	7.800%	\$876,672.62	11,176	6.638%	\$1,056,685.03
11,225	7.800%	\$877,139.39	11,200	6.636%	\$1,058,382.53
11,250	7.800%	\$877,607.86	11,225	6.634%	\$1,060,081.03
11,276	7.800%	\$878,078.03	11,250	6.632%	\$1,061,780.53
11,300	7.800%	\$878,549.90	11,276	6.630%	\$1,063,481.03
11,325	7.800%	\$879,023.57	11,300	6.628%	\$1,065,182.53
11,350	7.800%	\$879,498.94	11,325	6.626%	\$1,066,885.03
11,375	7.800%	\$879,975.91	11,350	6.624%	\$1,068,588.53
11,400	7.800%	\$880,454.58	11,375	6.622%	\$1,070,293.03
11,425	7.800%	\$880,934.95	11,400	6.620%	\$1,072,000.53
11,450	7.800%	\$881,416.92	11,425	6.618%	\$1,073,709.03
11,475	7.800%	\$881,900.59	11,450	6.616%	\$1,075,419.53
11,500	7.800%	\$882,385.96	11,475	6.614%	\$1,077,131.03
11,525	7.800%	\$882,873.03	11,500	6.612%	\$1,078,843.53
11,550	7.800%	\$883,361.70	11,525	6.610%	\$1,080,557.03
11,575	7.800%	\$883,852.07	11,550	6.608%	\$1,082,272.53
11,600	7.800%	\$884,344.14	11,575	6.606%	\$1,083,989.03
11,625	7.800%	\$884,837.81	11,600	6.604%	\$1,085,706.53
11,650	7.800%	\$885,333.18	11,625	6.602%	\$1,087,425.03
11,675	7.800%	\$885,830.25	11,650	6.600%	\$1,089,145.53
11,700	7.800%	\$886,328.92	11,675	6.598%	\$1,090,867.03
11,725	7.800%	\$886,829.29	11,700	6.596%	\$1,092,589.53
11,750	7.800%	\$887,331.36	11,725	6.594%	\$1,094,313.03
11,775	7.800%	\$887,835.13	11,750	6.592%	\$1,096,038.53
11,800</					

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Contribution In Millions	Percent	Fee	Cost of Contribution In Millions	Percent	Fee
8.976	7.822%	\$702,019.04	8.976	6.803%	\$610,060.91
8.000	7.820%	\$708,777.81	8.000	6.801%	\$612,099.62
8.028	7.819%	\$708,598.48	8.028	6.799%	\$613,598.32
8.050	7.818%	\$707,284.73	8.050	6.797%	\$615,098.71
8.076	7.815%	\$705,092.59	8.076	6.794%	\$616,598.78
8.100	7.812%	\$702,892.42	8.100	6.791%	\$618,098.47
8.126	7.808%	\$712,697.05	8.126	6.788%	\$619,598.89
8.160	7.807%	\$714,324.89	8.160	6.789%	\$621,097.13
8.175	7.805%	\$719,087.41	8.175	6.789%	\$622,598.97
8.200	7.803%	\$717,897.84	8.200	6.793%	\$623,090.49
8.228	7.800%	\$719,893.98	8.228	6.791%	\$625,097.11
8.248	7.798%	\$721,893.80	8.248	6.790%	\$626,597.44
8.260	7.798%	\$721,893.80	8.260	6.777%	\$628,098.24
8.300	7.794%	\$724,890.54	8.300	6.776%	\$630,098.56
8.326	7.792%	\$728,894.47	8.326	6.773%	\$631,598.86
8.360	7.790%	\$728,370.11	8.360	6.771%	\$633,093.28
8.376	7.788%	\$730,129.48	8.376	6.768%	\$634,597.69
8.400	7.786%	\$731,629.59	8.400	6.764%	\$636,094.60
8.428	7.784%	\$733,629.59	8.428	6.761%	\$637,594.80
8.460	7.782%	\$735,380.79	8.460	6.758%	\$639,094.80
8.476	7.780%	\$737,138.01	8.476	6.756%	\$640,592.37
8.500	7.778%	\$739,897.80	8.500	6.753%	\$642,091.31
8.628	7.776%	\$740,894.41	8.628	6.750%	\$643,590.49
8.650	7.774%	\$742,398.72	8.650	6.748%	\$645,089.78
8.660	7.773%	\$743,894.41	8.660	6.746%	\$646,589.07
8.685	7.770%	\$745,390.69	8.685	6.743%	\$648,088.37
8.690	7.769%	\$747,091.97	8.690	6.740%	\$649,587.67
8.825	7.768%	\$749,403.18	8.825	6.738%	\$651,086.97
8.850	7.764%	\$751,164.08	8.850	6.734%	\$652,586.27
8.875	7.762%	\$752,924.98	8.875	6.731%	\$654,085.57
8.900	7.760%	\$754,685.88	8.900	6.728%	\$655,584.87
8.925	7.758%	\$756,446.78	8.925	6.726%	\$657,084.17
8.950	7.756%	\$758,207.68	8.950	6.724%	\$658,583.47
8.975	7.754%	\$760,004.39	8.975	6.722%	\$660,082.77
9.000	7.752%	\$761,843.43	9.000	6.720%	\$661,582.07
9.028	7.749%	\$763,722.80	9.028	6.718%	\$663,081.37
9.050	7.748%	\$765,644.89	9.050	6.716%	\$664,580.67
9.076	7.746%	\$767,612.80	9.076	6.714%	\$666,079.97
9.100	7.744%	\$769,628.71	9.100	6.712%	\$667,579.27
9.126	7.742%	\$771,694.62	9.126	6.710%	\$669,078.57
9.160	7.741%	\$773,810.53	9.160	6.708%	\$670,577.87
8.975	7.739%	\$775,143.39	8.975	6.706%	\$672,077.17
10.000	7.739%	\$775,950.70	10.000	6.704%	\$673,576.47





Jimmie Schindewolf, PE.  
General Manager

June 21, 2007

BOARD OF DIRECTORS  
James D. Pulliam, President  
Alan J. Rendt, Vice President  
Ron Graham, Secretary  
Laird A. Sigler, Treasurer  
Kelly Fessler, Asst. Secretary

Wendell L. "Buddy" Barnes  
Carter & Burgess, Inc.  
55 Waugh Drive, Suite 300  
Houston, Texas 77007-5833

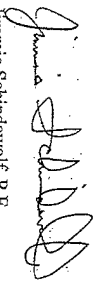
Re: Agreement For Professional Engineering Services

Dear Mr. Barnes:

Transmitted herewith please find one fully executed duplicate original of Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and Carter & Burgess, Inc. This Agreement was approved by the Authority Board of Directors at the October 2, 2006, Board meeting. I am also sending one duplicate original to Tom Rolan (Authority Program Director), one to Robin Bobbitt (Authority General Counsel), and I am retaining one for the Authority contract file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

  
Jimmie Schindewolf, P.E.  
General Manager

JAS/ir

Attachment

Cc: Robin S. Bobbitt, Johnson Radcliff Petrov & Bobbitt PLLC - w/attachment  
Tom Rolan, P.E., TCB INC. - w/attachment  
Shovvi Nandagiri, P.E., NHCRWA  
Cynth Plunkett, NHCRWA - w/attachment



**AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES**  
**(CARTER & BURGESS, INC.)**

THE STATE OF TEXAS       §  
  §  
COUNTY OF HARRIS       §

THIS AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and Carter & Burgess, Inc. (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects;

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION I**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected in the detailed Scope of Services attached as **Appendices A and A-1** and that are specifically identified in the Scope of Services that will accompany each Work Authorization issued by the General Manager.
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).
3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.

date for required completion is extended and continuation of such service is approved by the General Manager.

#### SECTION IV

##### THE ENGINEER'S COMPENSATION

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blue-line drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof; costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Agreement are described as follows:

##### Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

#### Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

#### Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in **Appendix C**.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.

For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.

2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.

3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.

The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### SECTION V

#### TIME OF PAYMENT

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager", in a form suitable to the Authority, setting forth the services provided under this Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person performing the services and countersigned by his/her supervisor certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Agreement have been performed. Within

forty-five (45) days after the performance of all services provided for in this Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

**SECTION VI  
TERMINATION**

Either party may terminate this Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Agreement, less such payments on account of the charges as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Agreement shall be delivered to the Authority when and if this Agreement is terminated.

**SECTION VII  
NOTICE**

Any notice required to be given under the provisions of this Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Agreement, all notices shall be delivered to the following addresses:

To the Engineer:      Carter & Burgess, Inc.  
   55 Waugh Drive, Suite 300  
   Houston, Texas 77007-5833

Attention:                      Mr. Wendell L. "Buddy" Barnes, P.E.

To the Authority:              North Harris County Regional Water Authority  
   3648 FM 1960 West, Suite 110  
   Houston, Texas 77068

Attention:                      General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### **SECTION VIII**

#### **SUCCESSORS AND ASSIGNS**

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Agreement. Neither the Authority nor the Engineer shall assign, sublet, or transfer its or his/her interest in this Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

#### **SECTION IX**

#### **PUBLIC CONTACT**

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Agreement or any requested service shall be referred to the General Manager.

#### **SECTION X**

#### **COMPLIANCE AND STANDARDS**

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### **SECTION XI**

#### **LICENSE REQUIREMENTS**

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Agreement.

**SECTION XII**  
**INSURANCE AND INDEMNIFICATION**

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Agreement and that of its subcontractors or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subcontractors (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.

**SECTION XIII**  
**OWNERSHIP OF PLANS, COPYRIGHT, AND**  
**OTHER INTELLECTUAL PROPERTY**

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproductions, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual

property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and to perform all of the terms, provisions, and conditions of this Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes input/output information, and other documents, materials and/or data, including the source codes therefor, and any material objects embodying any works of authorship, prepared pursuant to this Agreement.

Copies of all complete or partially complete information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes therefor, and any material objects embodying any works of authorship, prepared pursuant to this Agreement, shall also be delivered by the Engineer to the General Manager when and if this Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.



**SECTION XIV  
MODIFICATIONS**

This instrument contains the entire Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

**SECTION XV**

**AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Agreement and all questions as to the acceptable fulfillment of this Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Agreement.

**SECTION XVI**

**SEVERABILITY**

Any provision or part of this Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**SECTION XVII**

**MERGER**

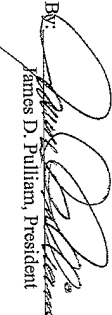
The Parties agree that this Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Agreement.

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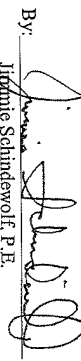
**SECTION XVIII  
EXECUTION**

The Authority executes this Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Agreement shall not become effective until executed by all parties hereto.


NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

By:   
James D. Pulliam, President  
Date Signed: 12-21-07


ATTEST:

By:   
Ron Graham, Secretary  
(AUTHORITY SEAL)  
APPROVED:  
  
By:   
Jürgen Schindewolf, P.E.  
General Manager

CARTER & BURGESS, INC.

  
Name: Greg Hearn  
Title: Senior Vice President  
Date Signed: 06-19-2007

ATTEST:

  
By: \_\_\_\_\_  
Name: STEPHEN C. BUSHONG  
Title: Sr. Vice President

APPENDIX A

SCOPE OF SERVICES

(Carter & Burgess, Inc.)

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see Appendix A-1) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnects, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.

APPENDIX A-1

SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES

(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

1. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternative water line alignments considering all relevant factors and prepare schematic layouts for each alternative route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review.
  - i. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.

2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues

- associated with such submittals within fourteen (14) calendar days of receipt of submittals from the Program Manager.
- e. Prepare revisions to the contract documents (*i.e.*, change orders) at no charge to the Authority when such change orders are required to make clarifications, correct discrepancies, errors or omissions to the contract documents.
  - f. When requested by the Program Manager, evaluate contractor changes and cost proposals and recommend action to the Program Manager.
  - g. Make monthly site visits to the Project site to observe the progress and quality of the executed work. Such site visits are to be coordinated with the Program Manager and a site visit report shall be submitted to the Program Manager after each such site visit, indicating observations related to the executed work.
  - h. Attend final Project walkthrough.
  - i. Prepare "record drawings" indicating changes to the contract drawings and showing significant changes made to the work during the construction of the Project. Such changes will be based upon marked-up "record drawings" furnished to the Engineer by the Program Manager and the construction contractor.

APPENDIX B  
HOURLY BILLING RATES  
(Carter & Burgess, Inc.)

<u>Classification</u>	<u>Hourly Rates</u>
Principal	\$240.00
Associate	\$210.00
Department Manager	\$210.00
Senior Project Manager	\$150.00
Project Manager	\$140.00
Senior Engineer	\$130.00
Engineer II	\$115.00
Engineer I	\$100.00
Lead Designer	\$105.00
Senior Designer	\$100.00
Designer	\$90.00
Word Processor / Secretary	\$75.00
Construction Manager	\$150.00
Senior Inspector	\$100.00
Inspector	\$75.00

- Notes:**
- (1) Additional classifications and subsequent year rates must be approved in writing by the General Manager.
  - (2) Subconsultant costs and other miscellaneous expenses as approved by the General Manager will be paid at cost plus 10%.



APPENDIX C

CITY OF HOUSTON CURVES FOR MEDIAN COMPENSATION

(Carter & Burgess, Inc.)



**CITY OF HOUSTON**  
Public Works and Engineering  
Department

Lee R. Brown


Mayor

Jon G. Vanden Bary, P.E.  
Director  
Mechanical & Engineering  
Department  
P.O. Box 1528  
Houston, Texas 77251-1528  
T: 713.847.6997  
F: 713.847.6250  
www.cityofhouston.gov

July 16, 2002

Christina M. Lindsey, Executive Director  
Houston – CEO  
2020 North Loop West, Suite 240  
Houston, Texas 77018

Dear Ms. Lindsey:  
PW&E has accepted the revised terms of Median Compensation attached hereto. These terms and all the associated  
rules will be used for determining the engineering fee to applicants in the Department until further notice.  
Sincerely,

  
Jon G. Vanden Bary, P.E.  
Director  
Department of Public Works and Engineering

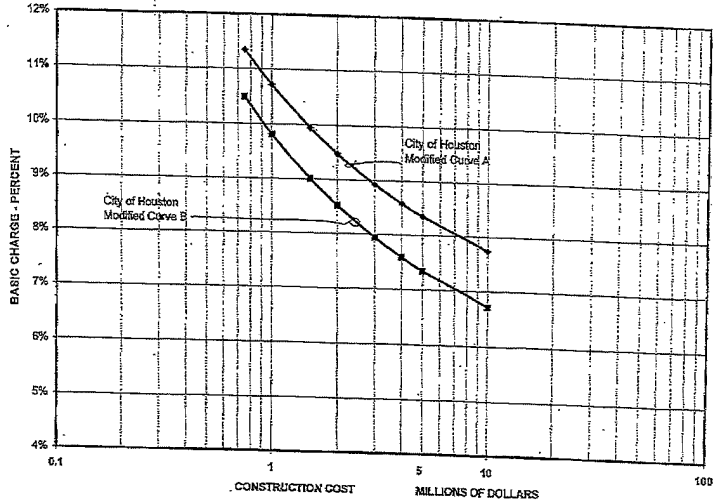
CC: Stewart Nantighil, P.E.  
Jeff Taylor  
Eric Dargatzis  
Rick Vacker – Aviation Department  
Monique Washburn – Building Services Department

Group/Inmate: Bruce Tatro, Gerald K. Galloway, Mark Chidsey, Ada Ekwere, Adia Williams, Mark A. Ellis, Bart Kiefer, Gabriel Vazquez, Olay Akinjide, Anthony D. Parker, Gordon Quinn, Stanley Siskind, Dallas H.O., Michael Terry, Curran Q. Robinson, Corinne, SYAR R. Davis

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
Curves of Median Compensation  
Curves A and B

*Shawn Nandgeri*  
Shawn Nandgeri, P.E.  
Deputy Director

*Jon C. Vanden Bosch*  
Jon C. Vanden Bosch, P.E.  
Director



MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Completion In Millions	Percent	Fee	Cost of Completion In Millions	Percent	Fee
0.760	11.347%	\$85,000.31	0.760	10.489%	\$78,608.64
0.775	11.270%	\$87,330.27	0.775	10.407%	\$80,665.49
0.800	11.190%	\$89,669.35	0.800	10.325%	\$82,832.09
0.825	11.129%	\$91,708.97	0.825	10.254%	\$84,599.09
0.850	11.072%	\$93,594.43	0.850	10.193%	\$86,058.68
0.875	11.020%	\$95,261.43	0.875	10.141%	\$87,254.43
0.900	10.973%	\$96,765.99	0.900	10.090%	\$88,236.30
0.925	10.930%	\$98,165.53	0.925	10.047%	\$89,160.50
0.950	10.891%	\$99,508.55	0.950	10.013%	\$90,032.74
0.975	10.857%	\$100,744.36	0.975	9.987%	\$90,863.38
1.000	10.828%	\$101,928.78	1.000	9.969%	\$91,662.27
1.025	10.803%	\$103,110.00	1.025	9.957%	\$92,439.11
1.050	10.781%	\$104,240.88	1.050	9.949%	\$93,194.44
1.075	10.803%	\$105,362.17	1.075	9.945%	\$93,928.64
1.100	10.817%	\$106,480.11	1.100	9.945%	\$94,641.05
1.125	10.833%	\$107,592.01	1.125	9.949%	\$95,332.96
1.150	10.850%	\$108,698.08	1.150	9.957%	\$96,004.91
1.175	10.868%	\$109,798.40	1.175	9.968%	\$96,657.50
1.200	10.889%	\$110,893.28	1.200	9.980%	\$97,291.30
1.225	10.910%	\$111,983.25	1.225	9.993%	\$97,906.08
1.250	10.272%	\$128,397.02	1.250	9.960%	\$116,027.66
1.275	10.239%	\$130,460.26	1.275	9.911%	\$118,728.02
1.300	10.210%	\$132,460.88	1.300	9.857%	\$122,555.22
1.325	10.184%	\$134,404.88	1.325	9.800%	\$126,544.88
1.350	10.161%	\$136,284.88	1.350	9.742%	\$130,699.22
1.375	10.089%	\$138,045.28	1.375	9.687%	\$135,047.02
1.400	10.089%	\$140,921.18	1.400	9.639%	\$139,587.13
1.425	10.035%	\$142,992.77	1.425	9.597%	\$144,304.36
1.450	10.009%	\$145,090.18	1.450	9.561%	\$149,191.66
1.475	10.009%	\$147,219.14	1.475	9.530%	\$154,150.92
1.500	9.946%	\$149,382.78	1.500	9.504%	\$159,184.22
1.525	9.880%	\$151,588.05	1.525	9.483%	\$164,292.58
1.550	9.800%	\$153,830.88	1.550	9.466%	\$169,475.81
1.575	9.693%	\$156,113.38	1.575	9.453%	\$174,733.02
1.600	9.600%	\$158,440.88	1.600	9.444%	\$180,065.22
1.625	9.511%	\$160,811.49	1.625	9.439%	\$185,472.44
1.650	9.424%	\$163,224.16	1.650	9.438%	\$190,954.68
1.675	9.339%	\$165,678.00	1.675	9.441%	\$196,511.96
1.700	9.257%	\$168,173.13	1.700	9.448%	\$202,144.30
1.725	9.178%	\$170,709.59	1.725	9.460%	\$207,851.70
1.750	9.103%	\$173,287.38	1.750	9.476%	\$213,634.16
1.775	9.032%	\$175,906.63	1.775	9.496%	\$219,491.68
1.800	8.964%	\$178,567.38	1.800	9.520%	\$225,424.26
1.825	8.902%	\$181,269.65	1.825	9.548%	\$231,431.92
1.850	8.844%	\$184,013.50	1.850	9.580%	\$237,514.66
1.875	8.791%	\$186,799.00	1.875	9.616%	\$243,682.48
1.900	8.681%	\$189,626.24	1.900	9.656%	\$249,935.38

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent
1.025	0.644%	\$103,955.77	1.025	0.693%	\$106,218.00	1.025	0.693%
1.960	0.644%	\$187,802.78	1.960	0.693%	\$187,802.78	1.960	0.693%
2.000	0.501%	\$103,955.77	2.000	0.501%	\$103,955.77	2.000	0.501%
2.025	0.469%	\$103,955.77	2.025	0.469%	\$103,955.77	2.025	0.469%
2.050	0.445%	\$103,955.77	2.050	0.445%	\$103,955.77	2.050	0.445%
2.075	0.427%	\$103,955.77	2.075	0.427%	\$103,955.77	2.075	0.427%
2.100	0.410%	\$103,955.77	2.100	0.410%	\$103,955.77	2.100	0.410%
2.125	0.394%	\$103,955.77	2.125	0.394%	\$103,955.77	2.125	0.394%
2.150	0.378%	\$103,955.77	2.150	0.378%	\$103,955.77	2.150	0.378%
2.175	0.363%	\$103,955.77	2.175	0.363%	\$103,955.77	2.175	0.363%
2.200	0.348%	\$103,955.77	2.200	0.348%	\$103,955.77	2.200	0.348%
2.225	0.333%	\$103,955.77	2.225	0.333%	\$103,955.77	2.225	0.333%
2.250	0.319%	\$103,955.77	2.250	0.319%	\$103,955.77	2.250	0.319%
2.275	0.305%	\$103,955.77	2.275	0.305%	\$103,955.77	2.275	0.305%
2.300	0.292%	\$103,955.77	2.300	0.292%	\$103,955.77	2.300	0.292%
2.325	0.280%	\$103,955.77	2.325	0.280%	\$103,955.77	2.325	0.280%
2.350	0.268%	\$103,955.77	2.350	0.268%	\$103,955.77	2.350	0.268%
2.375	0.257%	\$103,955.77	2.375	0.257%	\$103,955.77	2.375	0.257%
2.400	0.246%	\$103,955.77	2.400	0.246%	\$103,955.77	2.400	0.246%
2.425	0.236%	\$103,955.77	2.425	0.236%	\$103,955.77	2.425	0.236%
2.450	0.226%	\$103,955.77	2.450	0.226%	\$103,955.77	2.450	0.226%
2.475	0.217%	\$103,955.77	2.475	0.217%	\$103,955.77	2.475	0.217%
2.500	0.208%	\$103,955.77	2.500	0.208%	\$103,955.77	2.500	0.208%
2.525	0.200%	\$103,955.77	2.525	0.200%	\$103,955.77	2.525	0.200%
2.550	0.192%	\$103,955.77	2.550	0.192%	\$103,955.77	2.550	0.192%
2.575	0.185%	\$103,955.77	2.575	0.185%	\$103,955.77	2.575	0.185%
2.600	0.178%	\$103,955.77	2.600	0.178%	\$103,955.77	2.600	0.178%
2.625	0.171%	\$103,955.77	2.625	0.171%	\$103,955.77	2.625	0.171%
2.650	0.165%	\$103,955.77	2.650	0.165%	\$103,955.77	2.650	0.165%
2.675	0.159%	\$103,955.77	2.675	0.159%	\$103,955.77	2.675	0.159%
2.700	0.153%	\$103,955.77	2.700	0.153%	\$103,955.77	2.700	0.153%
2.725	0.148%	\$103,955.77	2.725	0.148%	\$103,955.77	2.725	0.148%
2.750	0.143%	\$103,955.77	2.750	0.143%	\$103,955.77	2.750	0.143%
2.775	0.138%	\$103,955.77	2.775	0.138%	\$103,955.77	2.775	0.138%
2.800	0.133%	\$103,955.77	2.800	0.133%	\$103,955.77	2.800	0.133%
2.825	0.128%	\$103,955.77	2.825	0.128%	\$103,955.77	2.825	0.128%
2.850	0.123%	\$103,955.77	2.850	0.123%	\$103,955.77	2.850	0.123%
2.875	0.118%	\$103,955.77	2.875	0.118%	\$103,955.77	2.875	0.118%
2.900	0.113%	\$103,955.77	2.900	0.113%	\$103,955.77	2.900	0.113%
2.925	0.108%	\$103,955.77	2.925	0.108%	\$103,955.77	2.925	0.108%
2.950	0.103%	\$103,955.77	2.950	0.103%	\$103,955.77	2.950	0.103%
2.975	0.098%	\$103,955.77	2.975	0.098%	\$103,955.77	2.975	0.098%
3.000	0.093%	\$103,955.77	3.000	0.093%	\$103,955.77	3.000	0.093%
3.025	0.088%	\$103,955.77	3.025	0.088%	\$103,955.77	3.025	0.088%
3.050	0.083%	\$103,955.77	3.050	0.083%	\$103,955.77	3.050	0.083%
3.075	0.078%	\$103,955.77	3.075	0.078%	\$103,955.77	3.075	0.078%

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent
3,100	8.881%	\$275,923.41	3,100	7.888%	\$244,798.37	3,100	7.888%
3,125	8.871%	\$277,232.18	3,125	7.893%	\$246,438.23	3,125	7.893%
3,150	8.862%	\$278,541.95	3,150	7.898%	\$248,098.68	3,150	7.898%
3,175	8.853%	\$279,851.72	3,175	7.903%	\$249,779.13	3,175	7.903%
3,200	8.844%	\$281,161.49	3,200	7.908%	\$251,469.58	3,200	7.908%
3,225	8.835%	\$282,471.26	3,225	7.913%	\$253,160.03	3,225	7.913%
3,250	8.826%	\$283,781.03	3,250	7.918%	\$254,850.48	3,250	7.918%
3,275	8.817%	\$285,090.80	3,275	7.923%	\$256,540.93	3,275	7.923%
3,300	8.808%	\$286,400.57	3,300	7.928%	\$258,231.38	3,300	7.928%
3,325	8.800%	\$287,710.34	3,325	7.933%	\$259,921.83	3,325	7.933%
3,350	8.791%	\$289,020.11	3,350	7.938%	\$261,612.28	3,350	7.938%
3,375	8.782%	\$290,329.88	3,375	7.943%	\$263,302.73	3,375	7.943%
3,400	8.773%	\$291,639.65	3,400	7.948%	\$264,993.18	3,400	7.948%
3,425	8.764%	\$292,949.42	3,425	7.953%	\$266,683.63	3,425	7.953%
3,450	8.755%	\$294,259.19	3,450	7.958%	\$268,374.08	3,450	7.958%
3,475	8.746%	\$295,568.96	3,475	7.963%	\$270,064.53	3,475	7.963%
3,500	8.737%	\$296,878.73	3,500	7.968%	\$271,754.98	3,500	7.968%
3,525	8.728%	\$298,188.50	3,525	7.973%	\$273,445.43	3,525	7.973%
3,550	8.719%	\$299,498.27	3,550	7.978%	\$275,135.88	3,550	7.978%
3,575	8.710%	\$300,808.04	3,575	7.983%	\$276,826.33	3,575	7.983%
3,600	8.701%	\$302,117.81	3,600	7.988%	\$278,516.78	3,600	7.988%
3,625	8.692%	\$303,427.58	3,625	7.993%	\$280,207.23	3,625	7.993%
3,650	8.683%	\$304,737.35	3,650	7.998%	\$281,897.68	3,650	7.998%
3,675	8.674%	\$306,047.12	3,675	8.003%	\$283,588.13	3,675	8.003%
3,700	8.665%	\$307,356.89	3,700	8.008%	\$285,278.58	3,700	8.008%
3,725	8.656%	\$308,666.66	3,725	8.013%	\$286,969.03	3,725	8.013%
3,750	8.647%	\$309,976.43	3,750	8.018%	\$288,659.48	3,750	8.018%
3,775	8.638%	\$311,286.20	3,775	8.023%	\$290,349.93	3,775	8.023%
3,800	8.629%	\$312,595.97	3,800	8.028%	\$292,040.38	3,800	8.028%
3,825	8.620%	\$313,905.74	3,825	8.033%	\$293,730.83	3,825	8.033%
3,850	8.611%	\$315,215.51	3,850	8.038%	\$295,421.28	3,850	8.038%
3,875	8.602%	\$316,525.28	3,875	8.043%	\$297,111.73	3,875	8.043%
3,900	8.593%	\$317,835.05	3,900	8.048%	\$298,802.18	3,900	8.048%
3,925	8.584%	\$319,144.82	3,925	8.053%	\$300,492.63	3,925	8.053%
3,950	8.575%	\$320,454.59	3,950	8.058%	\$302,183.08	3,950	8.058%
3,975	8.566%	\$321,764.36	3,975	8.063%	\$303,873.53	3,975	8.063%
4,000	8.557%	\$323,074.13	4,000	8.068%	\$305,563.98	4,000	8.068%
4,025	8.548%	\$324,383.90	4,025	8.073%	\$307,254.43	4,025	8.073%
4,050	8.539%	\$325,693.67	4,050	8.078%	\$308,944.88	4,050	8.078%
4,075	8.530%	\$327,003.44	4,075	8.083%	\$310,635.33	4,075	8.083%
4,100	8.521%	\$328,313.21	4,100	8.088%	\$312,325.78	4,100	8.088%
4,125	8.512%	\$329,622.98	4,125	8.093%	\$314,016.23	4,125	8.093%
4,150	8.503%	\$330,932.75	4,150	8.098%	\$315,706.68	4,150	8.098%
4,175	8.494%	\$332,242.52	4,175	8.103%	\$317,397.13	4,175	8.103%
4,200	8.485%	\$333,552.29	4,200	8.108%	\$319,087.58	4,200	8.108%
4,225	8.476%	\$334,862.06	4,225	8.113%	\$320,778.03	4,225	8.113%
4,250	8.467%	\$336,171.83	4,250	8.118%	\$322,468.48	4,250	8.118%

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MODIFIED CURVE A			MODIFIED CURVE B		
Contribution In Millions	Percent	Fee	Contribution In Millions	Percent	Fee
4.275	8.603%	\$393,728.18	4.275	7.610%	\$321,058.75
4.300	8.602%	\$395,502.48	4.300	7.604%	\$322,991.51
4.325	8.601%	\$397,247.80	4.325	7.597%	\$324,968.37
4.350	8.600%	\$398,962.48	4.350	7.591%	\$326,984.38
4.375	8.484%	\$371,414.44	4.375	7.488%	\$327,740.41
4.400	8.477%	\$373,008.89	4.400	7.482%	\$329,048.01
4.425	8.471%	\$374,580.80	4.425	7.476%	\$330,280.41
4.450	8.465%	\$376,111.88	4.450	7.469%	\$331,252.41
4.475	8.460%	\$377,592.70	4.475	7.463%	\$332,282.41
4.500	8.454%	\$379,021.69	4.500	7.456%	\$333,411.77
4.525	8.448%	\$380,411.69	4.525	7.449%	\$334,001.68
4.550	8.442%	\$381,767.78	4.550	7.443%	\$334,798.41
4.575	8.436%	\$383,094.48	4.575	7.436%	\$335,393.00
4.600	8.430%	\$384,398.79	4.600	7.429%	\$336,000.75
4.625	8.425%	\$385,684.03	4.625	7.424%	\$336,719.41
4.650	8.419%	\$386,948.30	4.650	7.418%	\$337,452.17
4.675	8.414%	\$388,197.70	4.675	7.413%	\$338,199.34
4.700	8.408%	\$389,437.42	4.700	7.407%	\$338,961.32
4.725	8.403%	\$390,662.60	4.725	7.401%	\$339,728.82
4.750	8.397%	\$391,878.60	4.750	7.395%	\$340,501.32
4.775	8.392%	\$393,080.00	4.775	7.389%	\$341,279.32
4.800	8.386%	\$394,271.05	4.800	7.384%	\$342,062.17
4.825	8.380%	\$395,448.03	4.825	7.378%	\$342,850.34
4.850	8.374%	\$396,614.48	4.850	7.373%	\$343,643.34
4.875	8.370%	\$397,774.64	4.875	7.368%	\$344,441.32
4.900	8.366%	\$398,922.42	4.900	7.363%	\$345,244.32
4.925	8.360%	\$399,962.48	4.925	7.357%	\$346,052.17
4.950	8.354%	\$400,998.64	4.950	7.352%	\$346,865.34
4.975	8.348%	\$411,728.48	4.975	7.346%	\$347,683.34
5.000	8.342%	\$412,252.42	5.000	7.341%	\$348,506.34
5.025	8.340%	\$412,728.42	5.025	7.336%	\$349,334.34
5.050	8.335%	\$413,160.42	5.050	7.331%	\$350,167.34
5.075	8.329%	\$413,552.42	5.075	7.326%	\$351,005.34
5.100	8.323%	\$413,900.42	5.100	7.321%	\$351,848.34
5.125	8.317%	\$414,200.42	5.125	7.316%	\$352,696.34
5.150	8.311%	\$414,458.42	5.150	7.311%	\$353,549.34
5.175	8.305%	\$414,672.42	5.175	7.306%	\$354,407.34
5.200	8.301%	\$414,842.42	5.200	7.301%	\$355,270.34
5.225	8.296%	\$414,968.42	5.225	7.296%	\$356,138.34
5.250	8.291%	\$415,050.42	5.250	7.291%	\$357,012.34
5.275	8.286%	\$415,088.42	5.275	7.286%	\$357,892.34
5.300	8.280%	\$415,082.42	5.300	7.281%	\$358,777.34
5.325	8.275%	\$415,032.42	5.325	7.276%	\$359,667.34
5.350	8.270%	\$414,938.42	5.350	7.271%	\$360,562.34
5.375	8.265%	\$414,802.42	5.375	7.266%	\$361,462.34
5.400	8.260%	\$414,624.42	5.400	7.261%	\$362,367.34
5.425	8.254%	\$414,406.42	5.425	7.256%	\$363,277.34

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MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
5.400	0.259%	\$460,733.22	5.450	7.253%	\$390,280.49		
5.475	0.259%	\$461,194.42	5.475	7.253%	\$390,280.49		
5.500	0.259%	\$463,784.80	5.500	7.244%	\$389,591.91		
5.525	0.259%	\$465,994.34	5.525	7.239%	\$389,072.43		
5.575	0.222%	\$467,403.47	5.550	7.230%	\$401,532.74		
5.600	0.222%	\$469,020.86	5.575	7.230%	\$404,091.00		
5.625	0.222%	\$469,697.13	5.600	7.217%	\$404,691.32		
5.650	0.222%	\$469,673.80	5.625	7.213%	\$406,323.86		
5.675	0.223%	\$468,488.89	5.675	7.209%	\$410,980.35		
5.700	0.223%	\$468,305.33	5.700	7.204%	\$412,438.15		
5.725	0.208%	\$471,620.19	5.725	7.200%	\$415,091.35		
5.750	0.208%	\$472,748.45	5.750	7.194%	\$415,616.56		
5.775	0.189%	\$476,691.25	5.800	7.187%	\$416,653.38		
5.800	0.189%	\$477,373.77	5.825	7.183%	\$420,200.21		
5.825	0.189%	\$478,185.71	5.850	7.179%	\$421,798.46		
5.850	0.183%	\$480,891.07	5.875	7.175%	\$423,310.13		
5.875	0.183%	\$481,747.49	5.900	7.167%	\$424,641.33		
5.900	0.175%	\$484,611.09	5.925	7.163%	\$427,691.71		
5.925	0.175%	\$486,427.76	5.950	7.159%	\$429,511.40		
5.950	0.171%	\$488,238.85	5.975	7.155%	\$431,050.82		
6.000	0.169%	\$490,046.39	6.000	7.151%	\$432,600.18		
6.025	0.169%	\$491,659.37	6.025	7.148%	\$434,100.81		
6.050	0.169%	\$492,467.69	6.100	7.143%	\$437,248.89		
6.075	0.162%	\$497,274.04	6.125	7.138%	\$437,768.75		
6.100	0.149%	\$499,078.84	6.150	7.131%	\$440,341.27		
6.125	0.144%	\$500,968.10	6.175	7.122%	\$441,882.28		
6.150	0.144%	\$502,968.02	6.200	7.118%	\$443,391.70		
6.175	0.137%	\$505,097.49	6.225	7.120%	\$444,878.20		
6.200	0.133%	\$506,267.68	6.250	7.116%	\$446,518.00		
6.225	0.130%	\$506,100.82	6.275	7.112%	\$448,090.89		
6.250	0.129%	\$509,803.44	6.300	7.108%	\$449,603.20		
6.275	0.122%	\$511,705.63	6.325	7.103%	\$451,146.01		
6.300	0.118%	\$513,827.11	6.350	7.100%	\$452,698.50		
6.325	0.118%	\$515,820.44	6.375	7.097%	\$454,260.34		
6.350	0.112%	\$517,108.72	6.400	7.094%	\$455,707.34		
6.375	0.109%	\$518,509.77	6.425	7.089%	\$457,130.10		
6.400	0.104%	\$520,708.30	6.450	7.083%	\$458,940.39		
6.425	0.104%	\$522,697.34	6.475	7.080%	\$460,395.09		
6.450	0.101%	\$523,308.57	6.500	7.079%	\$461,063.33		
6.475	0.094%	\$523,938.89	6.525	7.079%	\$461,928.40		
6.500	0.090%	\$523,681.46	6.550	7.072%	\$463,608.32		
6.525	0.087%	\$523,698.60	6.575	7.069%	\$465,636.08		
6.575	0.084%	\$531,488.08	6.600	7.069%			
6.600	0.080%	\$533,281.13					



MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Contribution In Millions	Percent	Fee	Cost of Contribution In Millions	Percent	Fee		
6.825	8.077%	\$536,000.72	6.825	7.025%	\$458,071.34		
6.850	8.073%	\$539,891.83	6.850	7.022%	\$459,507.12		
6.875	8.070%	\$543,978.46	6.875	7.019%	\$461,142.41		
6.900	8.067%	\$548,242.28	6.900	7.016%	\$462,941.44		
6.925	8.064%	\$552,682.98	6.925	7.013%	\$464,841.38		
6.950	8.061%	\$557,299.26	6.950	7.010%	\$466,841.09		
6.975	8.058%	\$562,092.60	6.975	7.007%	\$468,940.25		
7.000	8.055%	\$567,063.50	7.000	7.004%	\$471,139.48		
7.025	8.052%	\$572,211.47	7.025	7.001%	\$473,439.38		
7.050	8.049%	\$577,537.13	7.050	7.000%	\$475,839.53		
7.075	8.046%	\$583,041.17	7.075	7.000%	\$478,339.53		
7.100	8.043%	\$588,723.16	7.100	7.000%	\$480,939.08		
7.125	8.040%	\$594,583.76	7.125	7.000%	\$483,638.88		
7.150	8.037%	\$600,623.56	7.150	7.000%	\$486,438.53		
7.175	8.034%	\$606,843.17	7.175	7.000%	\$489,337.88		
7.200	8.031%	\$613,243.16	7.200	7.000%	\$492,336.88		
7.225	8.028%	\$619,823.16	7.225	7.000%	\$495,436.13		
7.250	8.025%	\$626,583.16	7.250	7.000%	\$498,635.38		
7.275	8.022%	\$633,523.16	7.275	7.000%	\$501,934.38		
7.300	8.019%	\$640,643.16	7.300	7.000%	\$505,333.13		
7.325	8.016%	\$647,943.16	7.325	7.000%	\$508,831.88		
7.350	8.013%	\$655,423.16	7.350	7.000%	\$512,430.63		
7.375	8.010%	\$663,083.16	7.375	7.000%	\$516,129.38		
7.400	8.007%	\$670,923.16	7.400	7.000%	\$519,928.13		
7.425	8.004%	\$678,943.16	7.425	7.000%	\$523,826.88		
7.450	8.001%	\$687,143.16	7.450	7.000%	\$527,825.63		
7.475	8.000%	\$695,523.16	7.475	7.000%	\$531,924.38		
7.500	8.000%	\$704,083.16	7.500	7.000%	\$536,123.13		
7.525	8.000%	\$712,823.16	7.525	7.000%	\$540,421.88		
7.550	8.000%	\$721,743.16	7.550	7.000%	\$544,820.63		
7.575	8.000%	\$730,843.16	7.575	7.000%	\$549,319.38		
7.600	8.000%	\$740,123.16	7.600	7.000%	\$553,918.13		
7.625	8.000%	\$749,583.16	7.625	7.000%	\$558,616.88		
7.650	8.000%	\$759,223.16	7.650	7.000%	\$563,415.63		
7.675	8.000%	\$769,043.16	7.675	7.000%	\$568,314.38		
7.700	8.000%	\$779,043.16	7.700	7.000%	\$573,313.13		
7.725	8.000%	\$789,223.16	7.725	7.000%	\$578,411.88		
7.750	8.000%	\$799,583.16	7.750	7.000%	\$583,610.63		
7.775	8.000%	\$810,123.16	7.775	7.000%	\$588,909.38		
7.800	8.000%	\$820,843.16	7.800	7.000%	\$594,308.13		
7.825	8.000%	\$831,743.16	7.825	7.000%	\$599,806.88		
7.850	8.000%	\$842,823.16	7.850	7.000%	\$605,405.63		
7.875	8.000%	\$854,083.16	7.875	7.000%	\$611,104.38		
7.900	8.000%	\$865,523.16	7.900	7.000%	\$616,903.13		
7.925	8.000%	\$877,143.16	7.925	7.000%	\$622,801.88		
7.950	8.000%	\$888,943.16	7.950	7.000%	\$628,800.63		
7.975	8.000%	\$900,923.16	7.975	7.000%	\$634,909.38		
8.000	8.000%	\$913,083.16	8.000	7.000%	\$641,128.13		
8.025	8.000%	\$925,423.16	8.025	7.000%	\$647,446.88		
8.050	8.000%	\$937,943.16	8.050	7.000%	\$653,865.63		
8.075	8.000%	\$950,643.16	8.075	7.000%	\$660,384.38		
8.100	8.000%	\$963,523.16	8.100	7.000%	\$666,903.13		
8.125	8.000%	\$976,683.16	8.125	7.000%	\$673,521.88		
8.150	8.000%	\$990,023.16	8.150	7.000%	\$680,240.63		
8.175	8.000%	\$1,003,643.16	8.175	7.000%	\$687,059.38		
8.200	8.000%	\$1,017,543.16	8.200	7.000%	\$693,978.13		
8.225	8.000%	\$1,031,723.16	8.225	7.000%	\$701,096.88		
8.250	8.000%	\$1,046,183.16	8.250	7.000%	\$708,315.63		
8.275	8.000%	\$1,060,923.16	8.275	7.000%	\$715,634.38		
8.300	8.000%	\$1,075,943.16	8.300	7.000%	\$723,053.13		
8.325	8.000%	\$1,091,243.16	8.325	7.000%	\$730,571.88		
8.350	8.000%	\$1,106,823.16	8.350	7.000%	\$738,190.63		
8.375	8.000%	\$1,122,683.16	8.375	7.000%	\$745,909.38		
8.400	8.000%	\$1,138,823.16	8.400	7.000%	\$753,728.13		
8.425	8.000%	\$1,155,243.16	8.425	7.000%	\$761,646.88		
8.450	8.000%	\$1,171,943.16	8.450	7.000%	\$769,665.63		
8.475	8.000%	\$1,188,923.16	8.475	7.000%	\$777,784.38		
8.500	8.000%	\$1,206,183.16	8.500	7.000%	\$785,903.13		
8.525	8.000%	\$1,223,723.16	8.525	7.000%	\$794,121.88		
8.550	8.000%	\$1,241,543.16	8.550	7.000%	\$802,440.63		
8.575	8.000%	\$1,259,643.16	8.575	7.000%	\$810,859.38		
8.600	8.000%	\$1,278,023.16	8.600	7.000%	\$819,378.13		
8.625	8.000%	\$1,296,683.16	8.625	7.000%	\$827,996.88		
8.650	8.000%	\$1,315,623.16	8.650	7.000%	\$836,715.63		
8.675	8.000%	\$1,334,843.16	8.675	7.000%	\$845,534.38		
8.700	8.000%	\$1,354,343.16	8.700	7.000%	\$854,453.13		
8.725	8.000%	\$1,374,123.16	8.725	7.000%	\$863,471.88		
8.750	8.000%	\$1,394,183.16	8.750	7.000%	\$872,590.63		
8.775	8.000%	\$1,414,523.16	8.775	7.000%	\$881,709.38		
8.800	8.000%	\$1,435,143.16	8.800	7.000%	\$890,928.13		
8.825	8.000%	\$1,456,043.16	8.825	7.000%	\$899,246.88		
8.850	8.000%	\$1,477,223.16	8.850	7.000%	\$907,665.63		
8.875	8.000%	\$1,498,683.16	8.875	7.000%	\$916,184.38		
8.900	8.000%	\$1,520,423.16	8.900	7.000%	\$924,803.13		
8.925	8.000%	\$1,542,443.16	8.925	7.000%	\$933,521.88		
8.950	8.000%	\$1,564,743.16	8.950	7.000%	\$942,340.63		
8.975	8.000%	\$1,587,323.16	8.975	7.000%	\$951,259.38		
9.000	8.000%	\$1,610,183.16	9.000	7.000%	\$960,278.13		
9.025	8.000%	\$1,633,323.16	9.025	7.000%	\$969,396.88		
9.050	8.000%	\$1,656,743.16	9.050	7.000%	\$978,615.63		
9.075	8.000%	\$1,680,443.16	9.075	7.000%	\$987,934.38		
9.100	8.000%	\$1,704,423.16	9.100	7.000%	\$997,353.13		
9.125	8.000%	\$1,728,683.16	9.125	7.000%	\$1,006,871.88		
9.150	8.000%	\$1,753,223.16	9.150	7.000%	\$1,016,490.63		
9.175	8.000%	\$1,778,043.16	9.175	7.000%	\$1,026,209.38		
9.200	8.000%	\$1,803,143.16	9.200	7.000%	\$1,036,028.13		
9.225	8.000%	\$1,828,523.16	9.225	7.000%	\$1,045,946.88		
9.250	8.000%	\$1,854,183.16	9.250	7.000%	\$1,055,965.63		
9.275	8.000%	\$1,880,123.16	9.275	7.000%	\$1,066,084.38		
9.300	8.000%	\$1,906,343.16	9.300	7.000%	\$1,076,303.13		
9.325	8.000%	\$1,932,843.16	9.325	7.000%	\$1,086,621.88		
9.350	8.000%	\$1,959,623.16	9.350	7.000%	\$1,097,040.63		
9.375	8.000%	\$1,986,683.16	9.375	7.000%	\$1,107,559.38		
9.400	8.000%	\$2,014,023.16	9.400	7.000%	\$1,118,178.13		
9.425	8.000%	\$2,041,643.16	9.425	7.000%	\$1,128,896.88		
9.450	8.000%	\$2,069,543.16	9.450	7.000%	\$1,139,715.63		
9.475	8.000%	\$2,097,723.16	9.475	7.000%	\$1,150,634.38		
9.500	8.000%	\$2,126,183.16	9.500	7.000%	\$1,161,653.13		
9.525	8.000%	\$2,154,923.16	9.525	7.000%	\$1,172,771.88		
9.550	8.000%	\$2,183,943.16	9.550	7.000%	\$1,183,990.63		
9.575	8.000%	\$2,213,243.16	9.575	7.000%	\$1,195,309.38		
9.600	8.000%	\$2,242,823.16	9.600	7.000%	\$1,206,728.13		
9.625	8.000%	\$2,272,683.16	9.625	7.000%	\$1,218,246.88		
9.650	8.000%	\$2,302,823.16	9.650	7.000%	\$1,229,865.63		
9.675	8.000%	\$2,333,243.16	9.675	7.000%	\$1,241,584.38		
9.700	8.000%	\$2,363,943.16	9.700	7.000%	\$1,253,403.13		
9.725	8.000%	\$2,394,923.16	9.725	7.000%	\$1,265,321.88		
9.750	8.000%	\$2,426,183.16	9.750	7.000%	\$1,277,340.63		
9.775	8.000%	\$2,457,723.16	9.775	7.000%	\$1,289,459.38		
9.800	8.000%	\$2,489,543.16	9.800	7.000%	\$1,301,678.13		
9.825	8.000%	\$2,521,643.16	9.825	7.000%	\$1,313,996.88		
9.850	8.000%	\$2,554,023.16	9.850	7.000%	\$1,326,415.63		
9.875	8.000%	\$2,586,683.16	9.875	7.000%	\$1,338,934.38		
9.900	8.000%	\$2,619,523.16	9.900	7.000%	\$1,351,553.13		
9.925	8.000%	\$2,652,643.16	9.925	7.000%	\$1,364,271.88		
9.950	8.000%	\$2,686,043.16	9.950	7.000%	\$1,377,090.63		
9.975	8.000%	\$2,719,723.16	9.975	7.000%	\$1,389,909.38		
10.000	8.000%	\$2,753,783.16	10.000	7.000%	\$1,402,828.13		

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
7.880	7.083%	\$918,876.80	7.880	6.820%	\$598,786.08
7.850	7.083%	\$920,761.83	7.860	6.817%	\$594,281.48
7.825	7.083%	\$922,626.48	7.840	6.814%	\$589,798.88
7.800	7.083%	\$924,470.78	7.820	6.812%	\$585,341.18
7.775	7.083%	\$926,294.98	7.800	6.809%	\$580,962.85
7.750	7.083%	\$928,100.18	7.780	6.806%	\$576,662.84
7.725	7.083%	\$929,886.38	7.760	6.804%	\$572,441.74
7.700	7.083%	\$931,653.58	7.740	6.801%	\$568,300.08
7.675	7.083%	\$933,401.78	7.720	6.799%	\$564,238.58
7.650	7.083%	\$935,131.08	7.700	6.796%	\$560,257.68
7.625	7.083%	\$936,842.48	7.680	6.794%	\$556,357.98
7.600	7.083%	\$938,535.08	7.660	6.792%	\$552,539.98
7.575	7.083%	\$940,208.88	7.640	6.789%	\$548,803.08
7.550	7.083%	\$941,863.88	7.620	6.787%	\$545,147.08
7.525	7.083%	\$943,500.08	7.600	6.784%	\$541,571.68
7.500	7.083%	\$945,117.48	7.580	6.782%	\$538,077.48
7.475	7.083%	\$946,716.08	7.560	6.780%	\$534,664.28
7.450	7.083%	\$948,295.88	7.540	6.777%	\$531,332.08
7.425	7.083%	\$949,856.88	7.520	6.775%	\$528,080.68
7.400	7.083%	\$951,399.08	7.500	6.773%	\$524,909.88
7.375	7.083%	\$952,922.88	7.480	6.770%	\$521,819.48
7.350	7.083%	\$954,427.28	7.460	6.768%	\$518,809.28
7.325	7.083%	\$955,912.28	7.440	6.766%	\$515,879.08
7.300	7.083%	\$957,377.78	7.420	6.764%	\$513,029.68
7.275	7.083%	\$958,823.78	7.400	6.762%	\$510,260.88
7.250	7.083%	\$960,250.28	7.380	6.760%	\$507,572.48
7.225	7.083%	\$961,657.28	7.360	6.758%	\$504,964.28
7.200	7.083%	\$963,044.78	7.340	6.756%	\$502,436.08
7.175	7.083%	\$964,412.78	7.320	6.754%	\$499,987.68
7.150	7.083%	\$965,761.28	7.300	6.752%	\$497,618.88
7.125	7.083%	\$967,090.28	7.280	6.750%	\$495,330.28
7.100	7.083%	\$968,400.78	7.260	6.748%	\$493,122.48
7.075	7.083%	\$969,692.78	7.240	6.746%	\$491,000.28
7.050	7.083%	\$970,966.28	7.220	6.744%	\$488,963.48
7.025	7.083%	\$972,221.28	7.200	6.742%	\$487,001.88
7.000	7.083%	\$973,457.78	7.180	6.740%	\$485,115.28
6.975	7.083%	\$974,675.78	7.160	6.738%	\$483,303.48
6.950	7.083%	\$975,875.28	7.140	6.736%	\$481,566.08
6.925	7.083%	\$977,056.28	7.120	6.734%	\$479,903.68
6.900	7.083%	\$978,218.78	7.100	6.732%	\$478,316.08
6.875	7.083%	\$979,362.78	7.080	6.730%	\$476,803.08
6.850	7.083%	\$980,488.28	7.060	6.728%	\$475,364.28
6.825	7.083%	\$981,595.28	7.040	6.726%	\$474,000.48
6.800	7.083%	\$982,683.78	7.020	6.724%	\$472,711.68
6.775	7.083%	\$983,753.78	7.000	6.722%	\$471,497.88
6.750	7.083%	\$984,805.28	6.980	6.720%	\$470,359.08
6.725	7.083%	\$985,838.28	6.960	6.718%	\$469,295.28
6.700	7.083%	\$986,852.78	6.940	6.716%	\$468,306.48
6.675	7.083%	\$987,848.78	6.920	6.714%	\$467,392.68
6.650	7.083%	\$988,826.28	6.900	6.712%	\$466,553.88
6.625	7.083%	\$989,785.28	6.880	6.710%	\$465,790.08
6.600	7.083%	\$990,725.78	6.860	6.708%	\$465,101.28
6.575	7.083%	\$991,647.78	6.840	6.706%	\$464,487.48
6.550	7.083%	\$992,551.28	6.820	6.704%	\$463,948.68
6.525	7.083%	\$993,436.28	6.800	6.702%	\$463,484.88
6.500	7.083%	\$994,302.78	6.780	6.700%	\$463,096.08
6.475	7.083%	\$995,150.78	6.760	6.698%	\$462,782.28
6.450	7.083%	\$995,980.28	6.740	6.696%	\$462,543.48
6.425	7.083%	\$996,791.28	6.720	6.694%	\$462,379.68
6.400	7.083%	\$997,583.78	6.700	6.692%	\$462,290.88
6.375	7.083%	\$998,357.78	6.680	6.690%	\$462,277.08
6.350	7.083%	\$999,113.28	6.660	6.688%	\$462,338.28
6.325	7.083%	\$999,850.28	6.640	6.686%	\$462,473.48
6.300	7.083%	\$1,000,568.78	6.620	6.684%	\$462,682.68
6.275	7.083%	\$1,001,268.78	6.600	6.682%	\$462,955.88
6.250	7.083%	\$1,001,950.28	6.580	6.680%	\$463,293.08
6.225	7.083%	\$1,002,613.28	6.560	6.678%	\$463,694.28
6.200	7.083%	\$1,003,257.78	6.540	6.676%	\$464,159.48
6.175	7.083%	\$1,003,883.78	6.520	6.674%	\$464,689.68
6.150	7.083%	\$1,004,491.28	6.500	6.672%	\$465,284.88
6.125	7.083%	\$1,005,080.28	6.480	6.670%	\$465,945.08
6.100	7.083%	\$1,005,650.78	6.460	6.668%	\$466,670.28
6.075	7.083%	\$1,006,202.78	6.440	6.666%	\$467,460.48
6.050	7.083%	\$1,006,736.28	6.420	6.664%	\$468,315.68
6.025	7.083%	\$1,007,251.28	6.400	6.662%	\$469,235.88
6.000	7.083%	\$1,007,747.78	6.380	6.660%	\$470,220.08
5.975	7.083%	\$1,008,225.78	6.360	6.658%	\$471,268.28
5.950	7.083%	\$1,008,685.28	6.340	6.656%	\$472,380.48
5.925	7.083%	\$1,009,126.28	6.320	6.654%	\$473,547.68
5.900	7.083%	\$1,009,548.78	6.300	6.652%	\$474,770.88
5.875	7.083%	\$1,009,952.78	6.280	6.650%	\$476,050.08
5.850	7.083%	\$1,010,338.28	6.260	6.648%	\$477,385.28
5.825	7.083%	\$1,010,705.28	6.240	6.646%	\$478,776.48
5.800	7.083%	\$1,011,053.78	6.220	6.644%	\$480,223.68
5.775	7.083%	\$1,011,383.78	6.200	6.642%	\$481,726.88
5.750	7.083%	\$1,011,695.28	6.180	6.640%	\$483,287.08
5.725	7.083%	\$1,011,988.28	6.160	6.638%	\$484,904.28
5.700	7.083%	\$1,012,262.78	6.140	6.636%	\$486,577.48
5.675	7.083%	\$1,012,518.78	6.120	6.634%	\$488,306.68
5.650	7.083%	\$1,012,756.28	6.100	6.632%	\$490,091.88
5.625	7.083%	\$1,012,975.28	6.080	6.630%	\$491,933.08
5.600	7.083%	\$1,013,175.78	6.060	6.628%	\$493,830.28
5.575	7.083%	\$1,013,357.78	6.040	6.626%	\$495,783.48
5.550	7.083%	\$1,013,521.28	6.020	6.624%	\$497,792.68
5.525	7.083%	\$1,013,666.28	6.000	6.622%	\$499,857.88
5.500	7.083%	\$1,013,792.78	5.980	6.620%	\$501,979.08
5.475	7.083%	\$1,013,899.78	5.960	6.618%	\$504,157.28
5.450	7.083%	\$1,013,987.28	5.940	6.616%	\$506,392.48
5.425	7.083%	\$1,014,055.28	5.920	6.614%	\$508,684.68
5.400	7.083%	\$1,014,103.78	5.900	6.612%	\$511,033.88
5.375	7.083%	\$1,014,132.78	5.880	6.610%	\$513,440.08
5.350	7.083%	\$1,014,142.78	5.860	6.608%	\$515,903.28
5.325	7.083%	\$1,014,133.78	5.840	6.606%	\$518,423.48
5.300	7.083%	\$1,014,105.78	5.820	6.604%	\$521,000.68
5.275	7.083%	\$1,014,059.78	5.800	6.602%	\$523,634.88
5.250	7.083%	\$1,014,005.78	5.780	6.600%	\$526,326.08
5.225	7.083%	\$1,013,933.78	5.760	6.598%	\$529,074.28
5.200	7.083%	\$1,013,843.78	5.740	6.596%	\$531,878.48
5.175	7.083%	\$1,013,735.78	5.720	6.594%	\$534,738.68
5.150	7.083%	\$1,013,609.78	5.700	6.592%	\$537,654.88
5.125	7.083%	\$1,013,465.78	5.680	6.590%	\$540,627.08
5.100	7.083%	\$1,013,303.78	5.660	6.588%	\$543,655.28
5.075	7.083%	\$1,013,123.78	5.640	6.586%	\$546,738.48
5.050	7.083%	\$1,012,925.78	5.620	6.584%	\$549,876.68
5.025	7.083%	\$1,012,709.78	5.600	6.582%	\$553,069.88
5.000	7.083%	\$1,012,475.78	5.580	6.580%	\$556,318.08
4.975	7.083%	\$1,012,223.78	5.560	6.578%	\$559,621.28
4.950	7.083%	\$1,011,953.78	5.540	6.576%	\$562,979.48
4.925	7.083%	\$1,011,665.78	5.520	6.574%	\$566,392.68
4.900	7.083%	\$1,011,359.78	5.500	6.572%	\$569,860.88
4.875	7.083%	\$1,011,035.78	5.480	6.570%	\$573,384.08
4.850	7.083%	\$1,010,693.78	5.460	6.568%	\$576,962.28
4.825	7.083%	\$1,010,334.78	5.440	6.566%	\$580,595.48
4.800	7.083%	\$1,010,000.78	5.420	6.564%	\$584,283.68
4.775	7.083%	\$1,009,641.78	5.400	6.562%	\$588,026.88
4.750	7.083%	\$1,009,258.78	5.380	6.560%	\$591,825.08
4.725	7.083%	\$1,008,851.78	5.360	6.558%	\$595,678.28
4.700	7.083%	\$1,008,420.78	5.340	6.556%	\$599,586.48
4.675	7.083%	\$1,007,965.78	5.320	6.554%	\$603,549.68
4.650	7.083%	\$1,007,486.78	5.300	6.552%	\$607,567.88
4.625	7.083%	\$1,006,983.78	5.280	6.550%	\$611,641.08
4.600	7.083%	\$1,006,456.78	5.260	6.548%	\$615,769.28
4.575	7.083%	\$1,005,905.78	5.240	6.546%	\$619,952.48
4.550	7.083%	\$1,005,330.78	5.220	6.544%	\$624,190.68
4.525	7.083%	\$1,004,731.78	5.200	6.542%	\$628,483.88
4.500	7.083%	\$1,004,108.78	5.180	6.540%	\$632,832.08
4.475	7.083%	\$1,003,462.78	5.160	6.538%	\$637,235.28
4.450	7.083%	\$1,002,793.78	5.140	6.536%	\$641,693.48
4.425	7.083%	\$1,002,101.78	5.120	6.534%	\$646,206.68
4.400	7.083%	\$1,001,386.78	5.100	6.532%	\$650,774.88
4.375	7.083%	\$1,000,648.78	5.080	6.530%	\$655,398.08
4.350	7.083%	\$1,000,000.78	5.060	6.528%	\$660,077.28
4.325	7.083%	\$999,331.78	5.040	6.526%	\$664,812.48
4.300	7.083%	\$998,642.78	5.020	6.524%	\$669,603.68
4.275	7.083%	\$997,934.78	5.000	6.522%	\$674,450.88
4.250	7.083%	\$997,207.78	4.980	6.520%	\$679,354.08
4.225	7.083%	\$996,461.78	4.960	6.518%	\$684,313.28
4.200	7.083%	\$995,696.78	4.940	6.516%	\$689,327.48
4.175	7.083%	\$994,912.78	4.920	6.514%	\$694,396.68
4.150	7.083%	\$994,109.78	4.900	6.512%	\$699,520.88
4.125	7.083%	\$993,287.78	4.880	6.510%	\$704,700.08
4.100	7.083%	\$992,446.78	4.860	6.508%	\$709,934.28
4.075	7.083%	\$991,586.78	4.840	6.506%	\$715,223.48
4.050	7.083%	\$990,707.78	4.820	6.504%	\$720,567.68
4.025	7.083%	\$989,809.78	4.800	6.502%	\$725,966.88
4.000	7.083%	\$988,892.78	4.780	6.500%	\$731,421.08
3.975	7.083%	\$987,956.78	4.760	6.498%	\$736,930.28
3.950	7.083%	\$987,001.78	4.740	6.496%	\$742,494.48
3.925	7.083%	\$986,027.78	4.720	6.494%	\$748,113.68
3.900	7.083%	\$985,034.78	4.700	6.492%	\$753,787.88
3.875	7.083%	\$984,022.78	4.680	6.490%	\$759,517.08
3.85					

B1252002

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Contribution In Millions	Percent	Fee	Cost of Contribution In Millions	Percent	Fee	Cost of Contribution In Millions	Percent
8.076	7.892%	\$702,019.04	8.076	8.803%	\$910,806.61	8.076	8.803%
8.025	7.816%	\$703,277.91	8.025	8.700%	\$913,508.22	8.025	8.700%
8.050	7.816%	\$707,284.73	8.050	8.797%	\$917,608.71	8.050	8.797%
8.076	7.813%	\$709,062.58	8.076	8.794%	\$918,894.78	8.076	8.794%
8.100	7.811%	\$710,810.52	8.100	8.792%	\$919,698.99	8.100	8.792%
8.125	7.809%	\$712,524.86	8.125	8.790%	\$921,097.13	8.125	8.790%
8.150	7.807%	\$714,204.96	8.150	8.788%	\$922,488.43	8.150	8.788%
8.175	7.805%	\$715,857.84	8.175	8.786%	\$923,872.69	8.175	8.786%
8.200	7.803%	\$717,487.84	8.200	8.784%	\$925,250.71	8.200	8.784%
8.225	7.801%	\$719,093.85	8.225	8.781%	\$926,622.24	8.225	8.781%
8.250	7.799%	\$720,677.99	8.250	8.779%	\$927,987.43	8.250	8.779%
8.275	7.797%	\$722,240.79	8.275	8.777%	\$929,346.26	8.275	8.777%
8.300	7.795%	\$723,783.51	8.300	8.775%	\$930,698.95	8.300	8.775%
8.325	7.792%	\$725,306.47	8.325	8.773%	\$932,045.78	8.325	8.773%
8.350	7.790%	\$726,810.11	8.350	8.771%	\$933,386.92	8.350	8.771%
8.375	7.788%	\$728,294.48	8.375	8.769%	\$934,722.68	8.375	8.769%
8.400	7.786%	\$729,759.60	8.400	8.768%	\$936,053.14	8.400	8.768%
8.425	7.784%	\$731,205.28	8.425	8.766%	\$937,378.62	8.425	8.766%
8.450	7.782%	\$732,631.64	8.450	8.764%	\$938,699.37	8.450	8.764%
8.475	7.780%	\$734,038.84	8.475	8.762%	\$940,015.87	8.475	8.762%
8.500	7.778%	\$735,427.10	8.500	8.760%	\$941,328.57	8.500	8.760%
8.525	7.776%	\$736,796.60	8.525	8.758%	\$942,637.97	8.525	8.758%
8.550	7.774%	\$738,147.41	8.550	8.756%	\$943,943.65	8.550	8.756%
8.575	7.772%	\$739,479.72	8.575	8.754%	\$945,246.11	8.575	8.754%
8.600	7.770%	\$740,793.61	8.600	8.752%	\$946,544.97	8.600	8.752%
8.625	7.768%	\$742,089.19	8.625	8.750%	\$947,840.18	8.625	8.750%
8.650	7.766%	\$743,366.56	8.650	8.748%	\$949,132.17	8.650	8.748%
8.675	7.764%	\$744,625.82	8.675	8.746%	\$950,420.48	8.675	8.746%
8.700	7.762%	\$745,867.07	8.700	8.744%	\$951,705.64	8.700	8.744%
8.725	7.760%	\$747,090.32	8.725	8.742%	\$952,988.34	8.725	8.742%
8.750	7.758%	\$748,295.59	8.750	8.740%	\$954,269.18	8.750	8.740%
8.775	7.756%	\$749,482.88	8.775	8.738%	\$955,547.75	8.775	8.738%
8.800	7.754%	\$750,652.19	8.800	8.736%	\$956,823.60	8.800	8.736%
8.825	7.752%	\$751,803.53	8.825	8.734%	\$958,097.31	8.825	8.734%
8.850	7.750%	\$752,936.92	8.850	8.732%	\$959,368.40	8.850	8.732%
8.875	7.748%	\$754,052.86	8.875	8.730%	\$960,637.45	8.875	8.730%
8.900	7.746%	\$755,151.35	8.900	8.728%	\$961,904.95	8.900	8.728%
8.925	7.744%	\$756,232.39	8.925	8.726%	\$963,170.48	8.925	8.726%
8.950	7.742%	\$757,295.98	8.950	8.724%	\$964,434.52	8.950	8.724%
8.975	7.740%	\$758,342.12	8.975	8.722%	\$965,696.58	8.975	8.722%
9.000	7.738%	\$759,370.81	9.000	8.720%	\$966,956.28	9.000	8.720%
9.025	7.736%	\$760,382.05	9.025	8.718%	\$968,213.12	9.025	8.718%
9.050	7.734%	\$761,375.84	9.050	8.716%	\$969,467.00	9.050	8.716%
9.075	7.732%	\$762,352.18	9.075	8.714%	\$970,718.43	9.075	8.714%
9.100	7.730%	\$763,312.06	9.100	8.712%	\$971,967.00	9.100	8.712%
9.125	7.728%	\$764,255.49	9.125	8.710%	\$973,213.21	9.125	8.710%
9.150	7.726%	\$765,182.46	9.150	8.708%	\$974,457.56	9.150	8.708%
9.175	7.724%	\$766,093.07	9.175	8.706%	\$975,700.55	9.175	8.706%
9.200	7.722%	\$767,987.32	9.200	8.704%	\$976,942.68	9.200	8.704%
9.225	7.720%	\$769,865.11	9.225	8.702%	\$978,183.45	9.225	8.702%
9.250	7.718%	\$771,726.44	9.250	8.700%	\$979,423.36	9.250	8.700%
9.275	7.716%	\$773,571.31	9.275	8.698%	\$980,662.00	9.275	8.698%
9.300	7.714%	\$775,399.72	9.300	8.696%	\$981,900.00	9.300	8.696%
9.325	7.712%	\$777,211.77	9.325	8.694%	\$983,137.00	9.325	8.694%
9.350	7.710%	\$779,007.46	9.350	8.692%	\$984,373.65	9.350	8.692%
9.375	7.708%	\$780,786.79	9.375	8.690%	\$985,610.55	9.375	8.690%
9.400	7.706%	\$782,549.76	9.400	8.688%	\$986,848.30	9.400	8.688%
9.425	7.704%	\$784,296.47	9.425	8.686%	\$988,086.50	9.425	8.686%
9.450	7.702%	\$786,026.92	9.450	8.684%	\$989,324.75	9.450	8.684%
9.475	7.700%	\$787,741.11	9.475	8.682%	\$990,562.75	9.475	8.682%
9.500	7.698%	\$789,439.14	9.500	8.680%	\$991,801.00	9.500	8.680%
9.525	7.696%	\$791,121.01	9.525	8.678%	\$993,039.00	9.525	8.678%
9.550	7.694%	\$792,786.72	9.550	8.676%	\$994,277.25	9.550	8.676%
9.575	7.692%	\$794,436.28	9.575	8.674%	\$995,515.55	9.575	8.674%
9.600	7.690%	\$796,069.69	9.600	8.672%	\$996,753.50	9.600	8.672%
9.625	7.688%	\$797,686.02	9.625	8.670%	\$997,991.50	9.625	8.670%
9.650	7.686%	\$799,285.28	9.650	8.668%	\$999,229.25	9.650	8.668%
9.675	7.684%	\$800,867.47	9.675	8.666%	\$1,000,467.25	9.675	8.666%
9.700	7.682%	\$802,432.60	9.700	8.664%	\$1,001,705.00	9.700	8.664%
9.725	7.680%	\$803,980.67	9.725	8.662%	\$1,002,943.00	9.725	8.662%
9.750	7.678%	\$805,511.68	9.750	8.660%	\$1,004,181.50	9.750	8.660%
9.775	7.676%	\$807,025.63	9.775	8.658%	\$1,005,420.00	9.775	8.658%
9.800	7.674%	\$808,522.52	9.800	8.656%	\$1,006,658.00	9.800	8.656%
9.825	7.672%	\$810,003.35	9.825	8.654%	\$1,007,896.00	9.825	8.654%
9.850	7.670%	\$811,468.12	9.850	8.652%	\$1,009,133.50	9.850	8.652%
9.875	7.668%	\$812,916.83	9.875	8.650%	\$1,010,371.00	9.875	8.650%
9.900	7.666%	\$814,349.48	9.900	8.648%	\$1,011,608.00	9.900	8.648%
9.925	7.664%	\$815,766.07	9.925	8.646%	\$1,012,844.00	9.925	8.646%
9.950	7.662%	\$817,156.60	9.950	8.644%	\$1,014,079.50	9.950	8.644%
9.975	7.660%	\$818,531.17	9.975	8.642%	\$1,015,315.00	9.975	8.642%
10.000	7.658%	\$819,890.70	10.000	8.640%	\$1,016,550.00	10.000	8.640%



Jimmie Schindewolf, P.E.  
General Manager

December 28, 2006

**BOARD OF DIRECTORS**  
Alan J. Rendt, *President*  
Kelly Fessler, *Vice President*  
Lenox A. Sighler, *Secretary*  
James D. Pulliam, *Treasurer*  
Ron Graham, *Asst. Secretary*

Larry Weppler, P.E., Infrastructure Services Manager  
Jones & Carter, Inc.  
6335 Guffon, Suite 100  
Houston, Texas 77081

Re: Amended and Restated Agreement For Professional Engineering Services

Dear Mr. Weppler:

Transmitted herewith please find one fully executed duplicate original of the Amended and Restated Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and Jones & Carter, Inc. This Agreement was approved by the Authority Board of Directors at the November 6, 2006, Board meeting. I am also sending one duplicate original to Tom Rolan (Authority Program Director), one to Robin Bobbitt (Authority General Counsel), and I am retaining two for the Authority contact file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Jimmie Schindewolf".

Jimmie Schindewolf, P.E.  
General Manager

JAS/lrs

Attachment

Cc: Robin S. Bobbitt, Johnson Radcliff Petrov & Bobbitt PLLC - w/attachment  
Tom Rolan, P.E., Turner Collier & Braden, Inc. - w/attachment  
Shawn Nandagiri, P.E., NHCRWA  
Cyndi Plunkett, NHCRWA - w/attachment

**AMENDED AND RESTATED AGREEMENT  
FOR PROFESSIONAL ENGINEERING SERVICES**

(Jones & Carter, Inc.)

THE STATE OF TEXAS     §  
  §  
COUNTY OF HARRIS     §

THIS AMENDED AND RESTATED AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Amended Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and Jones & Carter, Inc. (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects;

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

The Authority and the Engineer have previously entered into an Agreement for Professional Engineering Services; however, due to changed circumstances and the need for clarification and revision, the Authority and the Engineer desire to enter into this Amended Agreement;

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION I**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected in the detailed Scope of Services attached as **Appendices A** and **A-1** and that are specifically identified in the Scope of Services that will accompany each Work Authorization issued by the General Manager.
  
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional

services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).

3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.
4. "Design Phase Agreed Estimate" shall mean the estimate of probable Construction Cost for a Construction Package developed at the completion of the approved Preliminary Engineering Phase, updated at the completion of the Design Phase and agreed to in writing by the General Manager and the Engineer.
5. "Preliminary Phase Agreed Estimate" shall mean the estimate of probable Construction Cost developed and agreed to in writing by the General Manager and the Engineer prior to commencing work on the Preliminary Engineering Phase of the Project. This agreed estimate applies only to the Preliminary Engineering Phase.
6. "Program Manager" shall mean the Authority's manager of its water supply program.
7. "Project" shall mean a design and/or construction project of the Authority authorized by the General Manager through the issuance of a Work Authorization.

## SECTION II

### CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Amended Agreement, the General Manager of the Authority or his designee (hereinafter the "General Manager") may deliver to the Engineer written authorization (hereinafter known as "Work Authorization") in accordance with this Section for the performance of certain professional services with regard to specified Authority projects, which services the Engineer shall then perform in accordance with this Amended Agreement. The General Manager may authorize the Engineer to provide all or any of the engineering and related services that are listed in Appendices A and A-1, attached hereto and made a part hereof.

The Authority shall have no obligation to pay for any services hereunder that have been rendered without the prior Work Authorization of the General Manager. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the Authority with progress reports at such times and in such manner as may be requested by the General Manager. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the General Manager as soon as possible.

### SECTION III

#### TIME OF PERFORMANCE

Upon receipt of a Work Authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The Authority shall have no obligation to pay for a service performed after the required completion date for same, as set forth in its Work Authorization, except to the extent the date for required completion is extended and continuation of such service is approved by the General Manager.

### SECTION IV

#### THE ENGINEERS COMPENSATION

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blueprint drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof; costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Amended Agreement are described as follows:

Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in **Appendix C**.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.



For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.

The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### SECTION V

#### TIME OF PAYMENT

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Amended Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager", in a form suitable to the Authority, setting forth the services provided under this Amended Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person

performing the services and countersigned by his/her supervisor, certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Amended Agreement have been performed. Within forty-five (45) days after the performance of all services provided for in this Amended Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Amended Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

#### SECTION VI

#### TERMINATION

Either party may terminate this Amended Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Amended Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Amended Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Amended Agreement, less such payments on account of the charges as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Amended Agreement shall be delivered to the Authority when and if this Amended Agreement is terminated.

#### SECTION VII

#### NOTICE

Any notice required to be given under the provisions of this Amended Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Amended Agreement, all notices shall be delivered to the following addresses:

To the Engineer: Jones & Carter, Inc.  
6335 Gulfport, Suite 100  
Houston, Texas 77081

Attention: Larry Weppler, P.E., Infrastructure Services Manager

To the Authority: North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Attention: General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### **SECTION VIII**

#### **SUCCESSORS AND ASSIGNS**

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Amended Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Amended Agreement. Neither the Authority nor the Engineer shall assign, sublet, or transfer its or his/her interest in this Amended Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

#### **SECTION IX**

#### **PUBLIC CONTACT**

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Amended Agreement or any requested service shall be referred to the General Manager.

#### **SECTION X**

#### **COMPLIANCE AND STANDARDS**

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the

Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### SECTION XI

#### LICENSE REQUIREMENTS

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Amended Agreement.

#### SECTION XII

#### INSURANCE AND INDEMNIFICATION

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Amended Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorney's fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Amended Agreement and that of its subcontractants or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subcontractants (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorney's fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.

**SECTION XIII**  
**OWNERSHIP OF PLANS, COPYRIGHT, AND**  
**OTHER INTELLECTUAL PROPERTY**

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Amended Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Amended Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Amended Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Amended Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Amended Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Amended Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement.

Copies of all complete or partially complete information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes therefor, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement, shall also be delivered

by the Engineer to the General Manager when and if this Amended Agreement is terminated, or upon completion of performance hereunder; whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

#### **SECTION XIV**

#### **MODIFICATIONS**

This instrument contains the entire Amended Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

#### **SECTION XV**

#### **AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Amended Agreement and all questions as to the acceptable fulfillment of this Amended Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Amended Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Amended Agreement.

#### **SECTION XVI**

#### **SEVERABILITY**

Any provision or part of this Amended Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Amended Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**SECTION XVII**

**MERGER**

The Parties agree that this Amended Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Amended Agreement.

[The remainder of this page intentionally left blank.]

SECTION XVIII  
EXECUTION

The Authority executes this Amended Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Amended Agreement shall not become effective until executed by all parties hereto.

NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

By:   
Alan J. Rend  
President

Date Signed: 12-22-06

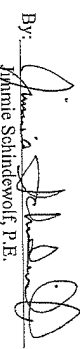
ATTEST:

By:   
Lenox K. ...

(AUTHOR)




APPROVED:


By:   
Jamie Schindewolf, P.E.  
General Manager



JONES & CARTER, INC.

By:   
Name: J. R. Jones  
Title: President  
Date Signed: Nov. 27, 2016

ATTEST:

By:   
Name: Charles P. Lottman  
Title: COO

APPENDIX A  
SCOPE OF SERVICES  
(Jones & Carter, Inc.)

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see **Appendix A-1**) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnects, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.

APPENDIX A-1

SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES

(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

1. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternative water line alignments considering all relevant factors and prepare schematic layouts for each alternative route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review.
  - i. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.

2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues associated with such submittals within fourteen (14) calendar days of receipt of submittals from the Program Manager.

- e. Prepare revisions to the contract documents (*i.e.*, change orders) at no charge to the Authority when such change orders are required to make clarifications, correct discrepancies, errors or omissions to the contract documents.
- f. When requested by the Program Manager, evaluate contractor changes and cost proposals and recommend action to the Program Manager.
- g. Make monthly site visits to the Project site to observe the progress and quality of the executed work. Such site visits are to be coordinated with the Program Manager and a site visit report shall be submitted to the Program Manager after each such site visit, indicating observations related to the executed work.
- h. Attend final Project walkthrough.
- i. Prepare "record drawings" indicating changes to the contract drawings and showing significant changes made to the work during the construction of the Project. Such changes will be based upon marked-up "record drawings" furnished to the Engineer by the Program Manager and the construction contractor.

**APPENDIX B**  
**HOURLY RATE SHEET**  
**(Jones & Carter, Inc.)**

Effective June 1, 2004

ENGINEERS

Engineer I	\$ 65.00/hr
Engineer II	\$ 72.00/hr
Engineer III	\$ 78.00/hr
Engineer IV	\$ 88.00/hr
Engineer V	\$ 108.00/hr
Engineer VI	\$ 120.00/hr
Staff Engineer	\$ 125.00/hr
Project Engineer	\$ 130.00/hr
Senior Project Engineer	\$ 135.00/hr
Officers, Project Managers	\$ 150.00/hr
Officers-President	\$ 200.00/hr

DESIGNERS/DRAFTING PERSONNEL

CAD Operator I	\$ 40.00/hr
CAD Operator II	\$ 47.00/hr
CAD Operator III	\$ 53.00/hr
CAD Operator IV	\$ 62.00/hr
CAD Operator V	\$ 69.00/hr
CAD Manager	\$ 80.00/hr
Designer I	\$ 76.00/hr
Designer II	\$ 85.00/hr
Chief Designer	\$ 90.00/hr
GIS Operator I	\$ 50.00/hr
GIS Operator II	\$ 60.00/hr
Computer Tech	\$ 36.00/hr
Computer Manager	\$ 85.00/hr
Registered Landscape Architect	\$ 85.00/hr
Licensed Irrigator	\$ 66.00/hr

PROJECT REPRESENTATIVES

(includes mileage)

Project Representative I	\$ 48.00/hr
Project Representative II	\$ 53.00/hr
Project Representative III	\$ 62.00/hr
Project Representative Coordinator	\$ 80.00/hr
Construction Engineer I	\$ 65.00/hr
Construction Engineer II	\$ 72.00/hr
Construction Engineer III	\$ 78.00/hr
Construction Engineer IV	\$ 88.00/hr
Construction Manager	\$ 135.00/hr

OFFICE PERSONNEL

Clerk	\$ 28.00/hr
Engineer's Assistant	\$ 35.00/hr
Secretary I	\$ 37.00/hr
Secretary II	\$ 45.00/hr
Secretary III	\$ 51.00/hr
Bookkeeper	\$ 65.00/hr
Staff Assistant	\$ 67.00/hr
Chief Assistant	\$ 75.00/hr

SURVEYING

Four-Man Field Crew	\$ 130.00/hr
Three-Man Field Crew	\$ 122.00/hr
Two-Man Field Crew	\$ 108.00/hr
One-Man Field Crew with Robotic Survey System	\$ 108.00/hr
Technician I	\$ 35.00/hr
Technician II	\$ 60.00/hr
Project Surveyor I	\$ 65.00/hr
Project Surveyor II	\$ 72.00/hr
Project Surveyor III	\$ 80.00/hr
Registered Prof. Land Surveyor Survey Manager	\$ 115.00/hr
	\$ 125.00/hr

EQUIPMENT AND MILEAGE

GPS System	\$ 300.00/day
Robotic Survey System	\$ 30.00/hr
Mileage	\$ .37/mi
Per diem up to 10 pages	\$ 5.00
Each additional page over 10	\$ .50/pg

- Notes:
- (1) Additional classifications and subsequent year rates must be approved in writing by the General Manager.
  - (2) Subcontractor costs and other miscellaneous expenses as approved by the General Manager will be paid at cost plus 10%.

APPENDIX C

CITY OF HOUSTON CURVES FOR MEDIAN COMPENSATION

(Jones & Carter, Inc.)




**CITY OF HOUSTON**  
Public Works and Engineering  
Department

Loug P. Brown  
Mayor  
Jon G. Varner, Sr., P.E.  
Director  
Robert W. Vitek & Engineering  
P.O. Box 1889  
Houston, Texas 77251-1889  
T: 713.857.2007  
F: 713.857.2007  
WWW.CITYOFHOUSTON.TX.GOV

July 16, 2002

Christina M. Lindsay, Executive Director  
Houston - CEC  
2020 North Loop West, Suite 240  
Houston, Texas 77018

Dear Ms. Lindsay:  
PW&E has adapted the revised Curves of Median Compensation attached hereto. These curves and/or the associated tables will be used for determining the engineering fees as appropriate in the Department until further notice.  
Sincerely,

  
Jon G. Varner, Sr., P.E.  
Director  
Department of Public Works and Engineering

CC: Shouri Kundruff, P.E.  
Jill Taylor  
Eric Duran  
Audilia Oquendo  
Monique McClinton - Building Services Department

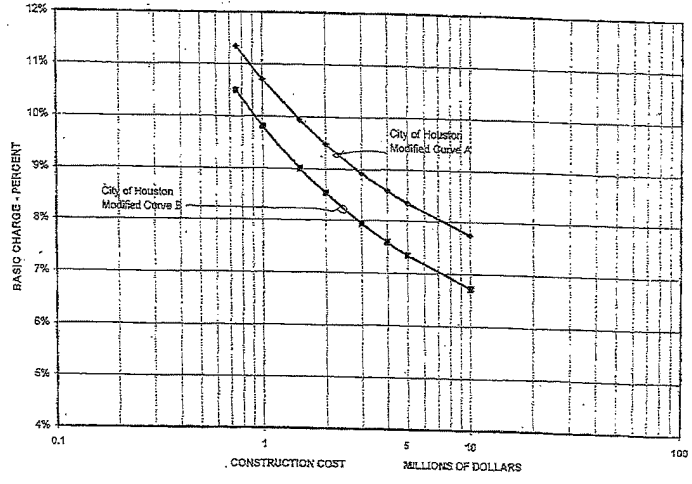
Send/receive: Since 1994, the City of Houston has been a leader in providing the highest quality of service to its citizens. We are proud to be a part of the City of Houston and to be recognized as one of the most innovative and successful cities in the world. We are committed to providing the highest quality of service to our citizens and to being a leader in providing the highest quality of service to our citizens.



DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
Curves of Median Compensation  
Curves A and B

*Shouri Mandalgi*  
Shouri Mandalgi, P.E.  
Deputy Director

*John C. Vanden Bosch*  
John C. Vanden Bosch, P.E.  
Director



MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
0.750	11.547%	\$95,090.31	0.750	10.483%	\$78,010.34		
0.75	11.220%	\$87,638.27	0.75	10.407%	\$80,024.19		
0.625	11.128%	\$81,780.07	0.625	10.254%	\$84,660.09		
0.650	11.058%	\$84,001.64	0.650	10.183%	\$80,859.00		
0.675	10.990%	\$86,504.43	0.675	10.115%	\$80,606.89		
0.600	10.933%	\$80,300.99	0.600	10.049%	\$80,406.57		
0.575	10.877%	\$78,800.00	0.575	9.982%	\$84,303.28		
0.550	10.817%	\$76,400.00	0.550	9.915%	\$80,130.00		
1.000	10.710%	\$107,100.00	1.000	9.729%	\$100,032.71		
1.025	10.650%	\$104,267.33	1.025	9.662%	\$100,000.00		
1.050	10.589%	\$113,852.17	1.050	9.597%	\$100,000.00		
1.075	10.527%	\$116,690.11	1.100	9.531%	\$100,000.00		
1.100	10.473%	\$117,622.01	1.125	9.465%	\$100,000.00		
1.125	10.420%	\$118,648.05	1.150	9.399%	\$100,000.00		
1.150	10.367%	\$119,762.01	1.175	9.333%	\$100,000.00		
1.200	10.304%	\$124,183.25	1.200	9.267%	\$113,172.70		
1.225	10.291%	\$126,282.72	1.225	9.201%	\$116,027.80		
1.250	10.272%	\$128,397.02	1.250	9.135%	\$116,027.80		
1.275	10.253%	\$130,486.26	1.275	9.069%	\$116,027.80		
1.300	10.234%	\$132,556.45	1.300	9.003%	\$116,027.80		
1.325	10.215%	\$134,600.08	1.325	8.937%	\$116,027.80		
1.350	10.195%	\$136,764.85	1.350	8.871%	\$116,027.80		
1.375	10.089%	\$138,846.20	1.375	8.805%	\$116,027.80		
1.400	10.085%	\$140,821.18	1.400	8.739%	\$122,687.13		
1.425	10.074%	\$142,700.14	1.425	8.673%	\$122,687.13		
1.450	10.064%	\$144,580.14	1.450	8.607%	\$13,148.38		
1.475	9.974%	\$147,123.43	1.475	8.541%	\$13,148.38		
1.500	9.946%	\$148,182.70	1.500	8.475%	\$13,148.38		
1.525	9.917%	\$151,230.06	1.525	8.409%	\$13,148.38		
1.550	9.888%	\$154,276.48	1.550	8.343%	\$13,148.38		
1.575	9.859%	\$157,321.88	1.575	8.277%	\$13,148.38		
1.600	9.830%	\$160,367.28	1.600	8.211%	\$13,148.38		
1.625	9.811%	\$163,412.68	1.625	8.145%	\$13,148.38		
1.650	9.792%	\$166,458.08	1.650	8.079%	\$13,148.38		
1.675	9.773%	\$169,503.48	1.675	8.013%	\$13,148.38		
1.700	9.754%	\$172,548.88	1.700	7.947%	\$13,148.38		
1.725	9.735%	\$175,594.28	1.725	7.881%	\$13,148.38		
1.750	9.690%	\$178,639.68	1.750	7.815%	\$13,148.38		
1.775	9.661%	\$181,685.08	1.775	7.749%	\$13,148.38		
1.800	9.632%	\$184,730.48	1.800	7.683%	\$13,148.38		
1.825	9.603%	\$187,775.88	1.825	7.617%	\$13,148.38		
1.850	9.574%	\$190,821.28	1.850	7.551%	\$13,148.38		
1.875	9.545%	\$193,866.68	1.875	7.485%	\$13,148.38		
1.900	9.516%	\$196,912.08	1.900	7.419%	\$13,148.38		
		\$191,652.24			\$161,723.87		

6/25/2002

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
1,025	8.541%	\$189,925.17	1,025	8.695%	\$185,218.00		
1,860	8.591%	\$182,893.33	1,860	8.692%	\$186,301.44		
1,975	8.591%	\$187,682.70	1,975	8.692%	\$189,440.01		
2,000	8.482%	\$180,667.49	2,000	8.622%	\$170,440.01		
2,025	8.464%	\$191,030.76	2,025	8.602%	\$172,176.50		
2,050	8.449%	\$193,038.37	2,050	8.603%	\$173,807.89		
2,075	8.434%	\$195,045.98	2,075	8.604%	\$175,439.28		
2,100	8.419%	\$197,053.59	2,100	8.605%	\$177,070.67		
2,125	8.392%	\$199,061.20	2,125	8.606%	\$178,702.06		
2,150	8.376%	\$201,068.81	2,150	8.607%	\$180,333.45		
2,175	8.360%	\$203,076.42	2,175	8.608%	\$181,964.84		
2,200	8.344%	\$205,084.03	2,200	8.609%	\$183,596.23		
2,225	8.328%	\$207,091.64	2,225	8.610%	\$185,227.62		
2,250	8.309%	\$209,099.25	2,250	8.611%	\$186,859.01		
2,275	8.293%	\$211,106.86	2,275	8.612%	\$188,490.40		
2,300	8.278%	\$213,114.47	2,300	8.613%	\$190,121.79		
2,325	8.263%	\$215,122.08	2,325	8.614%	\$191,753.18		
2,350	8.248%	\$217,129.69	2,350	8.615%	\$193,384.57		
2,375	8.233%	\$219,137.30	2,375	8.616%	\$195,015.96		
2,400	8.218%	\$221,144.91	2,400	8.617%	\$196,647.35		
2,425	8.203%	\$223,152.52	2,425	8.618%	\$198,278.74		
2,450	8.188%	\$225,160.13	2,450	8.619%	\$199,910.13		
2,475	8.173%	\$227,167.74	2,475	8.620%	\$201,541.52		
2,500	8.158%	\$229,175.35	2,500	8.621%	\$203,172.91		
2,525	8.143%	\$231,182.96	2,525	8.622%	\$204,804.30		
2,550	8.128%	\$233,190.57	2,550	8.623%	\$206,435.69		
2,575	8.113%	\$235,198.18	2,575	8.624%	\$208,067.08		
2,600	8.103%	\$237,205.79	2,600	8.625%	\$209,698.47		
2,625	8.093%	\$239,213.40	2,625	8.626%	\$211,329.86		
2,650	8.083%	\$241,221.01	2,650	8.627%	\$212,961.25		
2,675	8.073%	\$243,228.62	2,675	8.628%	\$214,592.64		
2,700	8.063%	\$245,236.23	2,700	8.629%	\$216,224.03		
2,725	8.053%	\$247,243.84	2,725	8.630%	\$217,855.42		
2,750	8.043%	\$249,251.45	2,750	8.631%	\$219,486.81		
2,775	8.033%	\$251,259.06	2,775	8.632%	\$221,118.20		
2,800	8.023%	\$253,266.67	2,800	8.633%	\$222,749.59		
2,825	8.013%	\$255,274.28	2,825	8.634%	\$224,380.98		
2,850	8.003%	\$257,281.89	2,850	8.635%	\$226,012.37		
2,875	7.993%	\$259,289.50	2,875	8.636%	\$227,643.76		
2,900	7.983%	\$261,297.11	2,900	8.637%	\$229,275.15		
2,925	7.973%	\$263,304.72	2,925	8.638%	\$230,906.54		
2,950	7.963%	\$265,312.33	2,950	8.639%	\$232,537.93		
2,975	7.953%	\$267,319.94	2,975	8.640%	\$234,169.32		
3,000	7.943%	\$269,327.55	3,000	8.641%	\$235,800.71		
3,025	7.933%	\$271,335.16	3,025	8.642%	\$237,432.10		
3,050	7.923%	\$273,342.77	3,050	8.643%	\$239,063.49		
3,075	7.913%	\$275,350.38	3,075	8.644%	\$240,694.88		

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0/28/2002

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
3.100	8.881%	\$276,539.44	3.100	7.868%	\$244,739.37		
3.120	8.871%	\$277,232.10	3.120	7.867%	\$245,432.03		
3.160	8.862%	\$278,130.65	3.160	7.867%	\$246,068.68		
3.176	8.862%	\$281,045.64	3.176	7.868%	\$249,798.73		
3.200	8.842%	\$282,960.17	3.200	7.859%	\$251,983.40		
3.226	8.833%	\$284,983.44	3.226	7.849%	\$253,028.70		
3.250	8.814%	\$288,658.00	3.250	7.838%	\$254,152.20		
3.300	8.805%	\$290,566.31	3.300	7.817%	\$257,046.65		
3.325	8.798%	\$292,468.33	3.325	7.807%	\$258,698.63		
3.350	8.789%	\$294,360.07	3.350	7.798%	\$261,145.21		
3.376	8.779%	\$296,244.79	3.376	7.788%	\$263,125.21		
3.426	8.769%	\$300,032.76	3.426	7.771%	\$266,430.76		
3.450	8.741%	\$301,924.50	3.450	7.752%	\$268,143.94		
3.475	8.743%	\$303,916.03	3.475	7.733%	\$269,408.89		
3.500	8.724%	\$305,791.38	3.500	7.714%	\$270,777.23		
3.525	8.705%	\$307,654.43	3.525	7.695%	\$272,149.87		
3.550	8.710%	\$308,476.60	3.550	7.727%	\$274,459.87		
3.575	8.701%	\$311,356.30	3.575	7.718%	\$275,663.74		
3.600	8.683%	\$313,246.95	3.600	7.709%	\$276,963.74		
3.625	8.664%	\$315,138.43	3.625	7.693%	\$278,263.18		
3.650	8.677%	\$318,697.07	3.650	7.683%	\$280,403.18		
3.675	8.670%	\$320,777.21	3.675	7.669%	\$282,494.18		
3.700	8.652%	\$322,666.35	3.700	7.657%	\$284,093.07		
3.725	8.634%	\$324,554.20	3.725	7.646%	\$285,698.84		
3.800	8.624%	\$328,668.87	3.800	7.635%	\$288,507.09		
3.825	8.606%	\$330,583.30	3.825	7.624%	\$290,524.68		
3.850	8.587%	\$332,503.30	3.850	7.609%	\$292,141.00		
3.875	8.569%	\$334,428.52	3.875	7.595%	\$293,763.88		
3.900	8.550%	\$336,358.87	3.900	7.581%	\$295,392.38		
3.925	8.531%	\$338,294.17	3.925	7.569%	\$296,966.16		
3.950	8.512%	\$340,234.33	3.950	7.558%	\$298,485.38		
4.000	8.501%	\$343,229.22	4.000	7.547%	\$301,117.48		
4.025	8.482%	\$345,168.16	4.025	7.537%	\$302,634.43		
4.050	8.463%	\$347,111.16	4.050	7.527%	\$304,147.11		
4.075	8.444%	\$349,058.21	4.075	7.517%	\$305,655.38		
4.100	8.425%	\$351,010.33	4.100	7.507%	\$307,159.26		
4.125	8.406%	\$352,967.50	4.125	7.497%	\$308,658.88		
4.150	8.387%	\$354,929.72	4.150	7.487%	\$310,154.17		
4.175	8.368%	\$356,897.01	4.175	7.477%	\$311,645.17		
4.200	8.349%	\$358,869.38	4.200	7.467%	\$313,131.80		
4.225	8.330%	\$360,846.87	4.225	7.457%	\$314,614.00		
4.250	8.311%	\$362,829.47	4.250	7.447%	\$316,091.79		
4.280	8.292%	\$364,817.18	4.280	7.437%	\$317,565.08		
4.300	8.273%	\$366,809.97	4.300	7.427%	\$319,033.89		

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02/29/2022

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
4.275	8.608%	\$361,738.18	4.275	7.610%	\$324,853.75		
4.300	8.602%	\$359,692.48	4.300	7.604%	\$322,809.51		
4.325	8.498%	\$367,447.80	4.325	7.497%	\$324,268.37		
4.350	8.490%	\$369,322.43	4.350	7.481%	\$325,854.33		
4.375	8.490%	\$371,105.98	4.375	7.465%	\$327,449.41		
4.400	8.471%	\$372,819.42	4.400	7.472%	\$329,050.94		
4.425	8.471%	\$374,460.80	4.425	7.468%	\$330,659.94		
4.450	8.466%	\$376,139.88	4.450	7.460%	\$332,280.41		
4.475	8.460%	\$377,852.10	4.475	7.460%	\$333,921.01		
4.500	8.464%	\$379,594.49	4.500	7.454%	\$335,571.77		
4.525	8.464%	\$381,372.48	4.525	7.448%	\$337,232.70		
4.550	8.442%	\$383,180.68	4.550	7.442%	\$338,904.75		
4.575	8.436%	\$385,024.68	4.575	7.436%	\$340,598.09		
4.600	8.430%	\$387,900.75	4.600	7.430%	\$342,312.80		
4.625	8.425%	\$389,806.03	4.625	7.424%	\$344,049.00		
4.650	8.414%	\$391,738.48	4.650	7.418%	\$345,816.71		
4.675	8.408%	\$393,694.17	4.675	7.412%	\$347,616.00		
4.700	8.403%	\$395,678.07	4.700	7.407%	\$349,446.94		
4.725	8.403%	\$397,684.17	4.725	7.401%	\$351,319.33		
4.750	8.397%	\$399,718.00	4.750	7.395%	\$353,233.22		
4.775	8.392%	\$401,784.05	4.775	7.389%	\$355,188.61		
4.800	8.387%	\$403,878.88	4.800	7.384%	\$357,185.42		
4.825	8.381%	\$405,998.88	4.825	7.379%	\$359,223.77		
4.850	8.376%	\$408,138.13	4.850	7.373%	\$361,303.74		
4.875	8.370%	\$409,295.64	4.875	7.368%	\$363,425.38		
4.900	8.365%	\$411,478.42	4.900	7.362%	\$365,588.70		
4.925	8.359%	\$413,683.75	4.925	7.357%	\$367,793.60		
4.950	8.353%	\$415,918.32	4.950	7.352%	\$369,039.09		
4.975	8.347%	\$418,181.32	4.975	7.346%	\$370,325.09		
5.000	8.341%	\$420,471.17	5.000	7.341%	\$371,651.77		
5.025	8.335%	\$422,787.40	5.025	7.336%	\$373,019.14		
5.050	8.329%	\$425,138.71	5.050	7.331%	\$374,427.20		
5.075	8.323%	\$427,524.42	5.075	7.325%	\$375,876.04		
5.100	8.317%	\$429,945.02	5.100	7.321%	\$377,365.74		
5.125	8.311%	\$432,399.72	5.125	7.316%	\$378,896.29		
5.150	8.305%	\$434,887.82	5.150	7.311%	\$380,467.69		
5.175	8.300%	\$437,409.82	5.175	7.306%	\$382,080.00		
5.200	8.305%	\$439,976.06	5.200	7.301%	\$383,734.21		
5.225	8.301%	\$442,586.06	5.225	7.296%	\$385,430.34		
5.250	8.296%	\$445,238.33	5.250	7.291%	\$387,168.50		
5.275	8.291%	\$447,932.41	5.275	7.286%	\$388,948.71		
5.300	8.286%	\$450,668.88	5.300	7.281%	\$390,770.97		
5.325	8.281%	\$453,448.30	5.325	7.276%	\$392,635.28		
5.350	8.277%	\$456,271.20	5.350	7.271%	\$394,542.64		
5.375	8.273%	\$459,138.37	5.375	7.267%	\$396,493.05		
5.400	8.269%	\$462,051.30	5.400	7.263%	\$398,487.52		
5.425	8.265%	\$465,010.50	5.425	7.259%	\$399,525.95		

02/29/2012

MODIFIED CURVE A

MODIFIED CURVE B

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
6.480	8.249%	\$580,133.22	6.480	7.243%	\$385,288.46
5.475	8.255%	\$461,004.42	6.475	7.248%	\$380,450.61
5.600	8.260%	\$463,746.60	6.600	7.244%	\$398,411.88
6.225	8.249%	\$465,954.34	6.595	7.239%	\$399,072.83
6.600	8.242%	\$467,063.47	6.590	7.236%	\$401,527.74
6.675	8.233%	\$467,387.77	6.685	7.234%	\$402,462.74
6.675	8.233%	\$467,030.86	6.690	7.228%	\$404,051.08
6.660	8.229%	\$467,887.13	6.625	7.217%	\$400,208.32
6.660	8.224%	\$468,488.88	6.680	7.211%	\$407,768.84
6.670	8.220%	\$468,588.93	6.675	7.212%	\$408,823.58
6.700	8.215%	\$469,359.53	6.775	7.204%	\$412,430.16
6.760	8.208%	\$471,034.47	6.725	7.200%	\$413,891.35
6.775	8.203%	\$473,748.15	6.775	7.190%	\$416,048.86
6.800	8.198%	\$475,681.25	6.800	7.181%	\$417,088.98
6.825	8.193%	\$477,383.77	6.850	7.176%	\$418,943.62
6.825	8.187%	\$480,007.86	6.860	7.169%	\$421,739.48
6.800	8.183%	\$482,007.67	6.900	7.164%	\$423,910.13
6.825	8.179%	\$484,518.09	6.925	7.159%	\$425,911.32
6.850	8.174%	\$488,247.25	6.925	7.154%	\$427,091.71
6.900	8.169%	\$490,046.39	6.975	7.149%	\$428,468.26
6.925	8.164%	\$491,853.37	6.975	7.144%	\$429,458.91
6.925	8.159%	\$493,600.91	6.975	7.139%	\$431,059.92
6.975	8.154%	\$495,296.29	6.975	7.134%	\$432,458.31
6.975	8.149%	\$498,078.84	6.975	7.129%	\$434,458.91
6.975	8.144%	\$500,895.10	6.975	7.124%	\$436,733.87
6.975	8.139%	\$502,688.02	6.975	7.119%	\$438,738.75
6.975	8.134%	\$504,498.48	6.975	7.114%	\$441,588.26
6.975	8.129%	\$506,308.82	6.975	7.109%	\$444,074.62
6.975	8.124%	\$508,103.44	6.975	7.104%	\$446,078.50
6.975	8.119%	\$511,705.53	6.975	7.099%	\$448,080.30
6.925	8.114%	\$513,607.11	6.975	7.094%	\$450,080.30
6.925	8.109%	\$515,508.17	6.975	7.089%	\$452,078.74
6.925	8.104%	\$517,408.72	6.975	7.084%	\$454,227.00
6.925	8.099%	\$519,308.77	6.925	7.079%	\$456,227.14
6.425	8.094%	\$520,708.30	6.425	7.074%	\$458,227.14
6.400	8.089%	\$522,307.24	6.425	7.069%	\$460,227.14
6.400	8.084%	\$524,106.91	6.400	7.064%	\$462,078.50
6.425	8.079%	\$527,801.46	6.425	7.059%	\$463,980.30
6.450	8.074%	\$532,693.50	6.450	7.054%	\$465,923.33
6.475	8.069%	\$531,493.50	6.475	7.049%	\$467,908.18
6.500	8.064%	\$531,493.50	6.500	7.044%	\$469,934.98
6.500	8.059%	\$531,493.50	6.500	7.039%	\$472,003.88
6.500	8.054%	\$531,493.50	6.500	7.034%	\$474,114.98
6.500	8.049%	\$531,493.50	6.500	7.029%	\$476,268.26
6.500	8.044%	\$531,493.50	6.500	7.024%	\$478,463.83
6.500	8.039%	\$531,493.50	6.500	7.019%	\$480,700.68
6.500	8.034%	\$531,493.50	6.500	7.014%	\$483,079.88
6.500	8.029%	\$531,493.50	6.500	7.009%	\$485,601.43
6.500	8.024%	\$531,493.50	6.500	7.004%	\$488,265.54
6.500	8.019%	\$531,493.50	6.500	7.000%	\$491,073.21
6.500	8.014%	\$531,493.50	6.500	6.995%	\$494,025.44
6.500	8.009%	\$531,493.50	6.500	6.990%	\$497,133.23
6.500	8.004%	\$531,493.50	6.500	6.985%	\$500,397.56
6.500	8.000%	\$531,493.50	6.500	6.980%	\$503,818.43
6.500	7.995%	\$531,493.50	6.500	6.975%	\$507,395.84
6.500	7.990%	\$531,493.50	6.500	6.970%	\$511,129.87
6.500	7.985%	\$531,493.50	6.500	6.965%	\$515,021.59
6.500	7.980%	\$531,493.50	6.500	6.960%	\$519,071.99
6.500	7.975%	\$531,493.50	6.500	6.955%	\$523,291.97
6.500	7.970%	\$531,493.50	6.500	6.950%	\$527,683.54
6.500	7.965%	\$531,493.50	6.500	6.945%	\$532,247.71
6.500	7.960%	\$531,493.50	6.500	6.940%	\$536,985.48
6.500	7.955%	\$531,493.50	6.500	6.935%	\$541,898.65
6.500	7.950%	\$531,493.50	6.500	6.930%	\$546,987.22
6.500	7.945%	\$531,493.50	6.500	6.925%	\$552,252.19
6.500	7.940%	\$531,493.50	6.500	6.920%	\$557,693.56
6.500	7.935%	\$531,493.50	6.500	6.915%	\$563,312.33
6.500	7.930%	\$531,493.50	6.500	6.910%	\$569,119.50
6.500	7.925%	\$531,493.50	6.500	6.905%	\$575,116.07
6.500	7.920%	\$531,493.50	6.500	6.900%	\$581,302.94
6.500	7.915%	\$531,493.50	6.500	6.895%	\$587,680.11
6.500	7.910%	\$531,493.50	6.500	6.890%	\$594,248.58
6.500	7.905%	\$531,493.50	6.500	6.885%	\$600,998.35
6.500	7.900%	\$531,493.50	6.500	6.880%	\$607,929.42
6.500	7.895%	\$531,493.50	6.500	6.875%	\$615,041.79
6.500	7.890%	\$531,493.50	6.500	6.870%	\$622,335.46
6.500	7.885%	\$531,493.50	6.500	6.865%	\$629,810.43
6.500	7.880%	\$531,493.50	6.500	6.860%	\$637,466.70
6.500	7.875%	\$531,493.50	6.500	6.855%	\$645,304.27
6.500	7.870%	\$531,493.50	6.500	6.850%	\$653,323.04
6.500	7.865%	\$531,493.50	6.500	6.845%	\$661,523.01
6.500	7.860%	\$531,493.50	6.500	6.840%	\$670,004.18
6.500	7.855%	\$531,493.50	6.500	6.835%	\$678,666.55
6.500	7.850%	\$531,493.50	6.500	6.830%	\$687,511.12
6.500	7.845%	\$531,493.50	6.500	6.825%	\$696,637.89
6.500	7.840%	\$531,493.50	6.500	6.820%	\$705,946.76
6.500	7.835%	\$531,493.50	6.500	6.815%	\$715,438.73
6.500	7.830%	\$531,493.50	6.500	6.810%	\$725,113.80
6.500	7.825%	\$531,493.50	6.500	6.805%	\$734,972.97
6.500	7.820%	\$531,493.50	6.500	6.800%	\$745,017.24
6.500	7.815%	\$531,493.50	6.500	6.795%	\$755,247.61
6.500	7.810%	\$531,493.50	6.500	6.790%	\$765,664.08
6.500	7.805%	\$531,493.50	6.500	6.785%	\$776,267.65
6.500	7.800%	\$531,493.50	6.500	6.780%	\$787,058.32
6.500	7.795%	\$531,493.50	6.500	6.775%	\$798,037.09
6.500	7.790%	\$531,493.50	6.500	6.770%	\$809,204.96
6.500	7.785%	\$531,493.50	6.500	6.765%	\$820,562.93
6.500	7.780%	\$531,493.50	6.500	6.760%	\$832,112.00
6.500	7.775%	\$531,493.50	6.500	6.755%	\$843,853.17
6.500	7.770%	\$531,493.50	6.500	6.750%	\$855,786.44
6.500	7.765%	\$531,493.50	6.500	6.745%	\$867,912.81
6.500	7.760%	\$531,493.50	6.500	6.740%	\$880,232.28
6.500	7.755%	\$531,493.50	6.500	6.735%	\$892,745.75
6.500	7.750%	\$531,493.50	6.500	6.730%	\$905,453.22
6.500	7.745%	\$531,493.50	6.500	6.725%	\$918,355.69
6.500	7.740%	\$531,493.50	6.500	6.720%	\$931,454.16
6.500	7.735%	\$531,493.50	6.500	6.715%	\$944,750.63
6.500	7.730%	\$531,493.50	6.500	6.710%	\$958,245.10
6.500	7.725%	\$531,493.50	6.500	6.705%	\$971,938.57
6.500	7.720%	\$531,493.50	6.500	6.700%	\$985,832.04
6.500	7.715%	\$531,493.50	6.500	6.695%	\$999,925.51
6.500	7.710%	\$531,493.50	6.500	6.690%	\$1,014,219.98
6.500	7.705%	\$531,493.50	6.500	6.685%	\$1,028,715.45
6.500	7.700%	\$531,493.50	6.500	6.680%	\$1,043,412.92
6.500	7.695%	\$531,493.50	6.500	6.675%	\$1,058,312.39
6.500	7.690%	\$531,493.50	6.500	6.670%	\$1,073,414.86
6.500	7.685%	\$531,493.50	6.500	6.665%	\$1,088,720.33
6.500	7.680%	\$531,493.50	6.500	6.660%	\$1,104,229.80
6.500	7.675%	\$531,493.50	6.500	6.655%	\$1,119,943.27
6.500	7.670%	\$531,493.50	6.500	6.650%	\$1,135,860.74
6.500	7.665%	\$531,493.50	6.500	6.645%	\$1,151,983.21
6.500	7.660%	\$531,493.50	6.500	6.640%	\$1,168,310.68
6.500	7.655%	\$531,493.50	6.500	6.635%	\$1,184,843.15
6.500	7.650%	\$531,493.50	6.500	6.630%	\$1,201,580.62
6.500	7.645%	\$531,493.50	6.500	6.625%	\$1,218,523.09
6.500	7.640%	\$531,493.50	6.500	6.620%	\$1,235,671.56
6.500	7.635%	\$531,493.50	6.500	6.615%	\$1,252,926.03
6.500	7.630%	\$531,493.50	6.500	6.610%	\$1,270,387.50
6.500	7.625%	\$531,493.50	6.500	6.605%	\$1,288,055.97
6.500	7.620%	\$531,493.50	6.500	6.600%	\$1,305,931.44
6.500	7.615%	\$531,493.50	6.500	6.595%	\$1,324,014.91
6.500	7.610%	\$531,493.50	6.500	6.590%	\$1,342,316.38
6.500	7.605%	\$531,493.50	6.500	6.585%	\$1,360,835.85
6.500	7.600%	\$531,493.50	6.500	6.580%	\$1,379,564.32
6.500	7.595%	\$531,493.50	6.500	6.575%	\$1,398,502.79
6.500	7.590%	\$531,493.50	6.500	6.570%	\$1,417,651.26
6.500	7.585%	\$531,493.50	6.500	6.565%	\$1,437,010.73
6.500	7.580%	\$531,493.50	6.500	6.560%	\$1,456,581.20
6.500	7.575%	\$531,493.50	6.500	6.555%	\$1,476,362.67
6.500	7.570%	\$531,493.50	6.500	6.550%	\$1,496,355.14
6.500	7.565%	\$531,493.50	6.500	6.545%	\$1,516,559.61
6.500	7.560%	\$531,493.50	6.500	6.540%	\$1,536,976.08
6.500	7.555%	\$531,493.50	6.500	6.535%	\$1,557,604.55
6.500	7.550%	\$531,493.50	6.500	6.530%	\$1,578,445.02
6.500	7.545%	\$531,493.50	6.500	6.525%	\$1,599,498.49
6.500	7.540%	\$531,493.50	6.500	6.520%	\$1,620,764.96
6.500	7.535%	\$531,493.50	6.500	6.515%	\$1,642,244.43
6.500	7.530%	\$531,493.50	6.500	6.510%	\$1,663,937.90
6.500	7.525%	\$531,493.50	6.500	6.505%	\$1,685,845.37
6.500	7.520%	\$531,493.50	6.500	6.500%	\$1,707,967.84
6.500	7.515%	\$531,493.50	6.500	6.495%	\$1,730,305.31
6.500	7.510%	\$531,493.50	6.500	6.490%	\$1,752,858.78
6.500	7.505%	\$531,493.50	6.500	6.485%	\$1,775,628.25
6.500	7.500%	\$531,493.50	6.500	6.480%	\$1,798,613.72
6.500	7.495%	\$531,493.50	6.500	6.475%	\$1,821,815.19
6.500	7.490%	\$531,493.50	6.500	6.470%	\$1,845,232.66
6.500	7.485%	\$531,493.50	6.500	6.465%	\$1,868,866.13
6.500	7.480%	\$531,493.50	6.500	6.460%	\$1,892,715.60
6.500	7.475%	\$531,493.50	6.500	6.455%	\$1,916,780.07
6.500	7.470%	\$531,493.50	6.500	6.450%	\$1,941,059.54
6.500	7.465%	\$531,493.50	6.500		

6/28/2002

MODIFIED CURVE A

MODIFIED CURVE B

Cost of Construction in Millions	Percent	Fee	Cost of Construction in Millions	Percent	Fee
6.825	8.073%	\$536,086.72	6.675	7.053%	\$468,071.34
6.830	8.073%	\$536,086.43	6.680	7.053%	\$468,067.12
6.876	8.070%	\$539,978.45	6.675	7.053%	\$471,142.41
6.700	8.067%	\$540,470.51	6.700	7.055%	\$472,577.21
6.726	8.063%	\$542,294.28	6.726	7.051%	\$474,211.54
6.742	8.060%	\$544,118.05	6.742	7.047%	\$475,845.87
6.770	8.057%	\$547,942.23	6.775	7.044%	\$477,787.78
6.600	8.054%	\$547,942.50	6.600	7.041%	\$478,811.09
6.425	8.050%	\$549,454.31	6.425	7.038%	\$480,344.09
6.660	8.047%	\$551,126.95	6.660	7.034%	\$481,976.05
6.876	8.044%	\$552,903.34	6.890	7.031%	\$483,607.99
6.840	8.044%	\$552,903.34	6.910	7.028%	\$485,239.93
6.825	8.039%	\$556,588.95	6.910	7.028%	\$486,871.87
6.960	8.034%	\$559,386.47	6.926	7.025%	\$488,503.81
6.876	8.031%	\$560,176.55	6.950	7.022%	\$490,135.75
7.000	8.028%	\$561,184.17	6.975	7.018%	\$491,767.69
7.000	8.028%	\$561,184.17	7.000	7.015%	\$493,400.63
7.050	8.025%	\$562,650.09	7.050	7.009%	\$495,033.57
7.076	8.019%	\$567,327.39	7.076	7.003%	\$496,666.51
7.100	8.016%	\$568,114.25	7.100	7.000%	\$498,300.45
7.126	8.013%	\$570,680.27	7.126	6.996%	\$499,934.39
7.152	8.010%	\$573,859.50	7.152	6.992%	\$501,568.33
7.175	8.007%	\$577,472.22	7.175	6.989%	\$503,202.27
7.200	8.004%	\$578,257.35	7.200	6.986%	\$504,836.21
7.225	8.001%	\$579,042.48	7.226	6.983%	\$506,470.15
7.250	7.998%	\$579,827.61	7.250	6.980%	\$508,104.09
7.300	7.992%	\$583,393.61	7.325	6.976%	\$509,738.03
7.350	7.986%	\$585,178.62	7.350	6.973%	\$511,371.97
7.390	7.983%	\$586,593.21	7.375	6.970%	\$513,005.91
7.376	7.983%	\$586,593.21	7.375	6.970%	\$513,005.91
7.426	7.977%	\$592,801.51	7.400	6.967%	\$514,639.85
7.440	7.974%	\$594,085.45	7.426	6.964%	\$516,273.79
7.478	7.971%	\$595,885.99	7.450	6.961%	\$517,907.73
7.500	7.968%	\$597,048.12	7.478	6.958%	\$519,541.67
7.525	7.965%	\$598,210.25	7.500	6.955%	\$521,175.61
7.525	7.965%	\$598,210.25	7.525	6.952%	\$522,809.55
7.575	7.960%	\$602,388.11	7.600	6.948%	\$524,443.49
7.600	7.957%	\$604,705.64	7.600	6.945%	\$526,077.43
7.626	7.954%	\$606,549.78	7.626	6.942%	\$527,711.37
7.652	7.951%	\$608,393.92	7.652	6.939%	\$529,345.31
7.678	7.948%	\$610,238.07	7.678	6.936%	\$530,979.25
7.700	7.945%	\$611,822.83	7.700	6.933%	\$532,613.19
7.726	7.941%	\$613,648.40	7.725	6.930%	\$534,247.13
7.750	7.938%	\$615,473.98	7.750	6.927%	\$535,881.07
7.775	7.935%	\$617,300.55	7.775	6.924%	\$537,515.01

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02/28/2002

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
7.600	7.039%	\$616,678.00	7.600	6.820%	\$539,798.08		
7.825	7.939%	\$650,751.03	7.825	6.820%	\$551,291.49		
7.950	7.830%	\$622,250.49	7.950	6.814%	\$548,341.18		
7.975	7.829%	\$621,300.76	7.975	6.812%	\$547,431.18		
7.975	7.829%	\$621,074.66	7.900	6.809%	\$546,692.45		
7.975	7.829%	\$620,851.19	7.825	6.806%	\$544,739.33		
7.975	7.829%	\$620,627.19	7.675	6.803%	\$542,822.64		
7.975	7.829%	\$620,403.19	7.675	6.801%	\$541,944.44		
7.975	7.829%	\$620,179.19	7.675	6.800%	\$541,070.74		
7.975	7.829%	\$619,955.19	7.675	6.800%	\$540,202.14		
7.975	7.829%	\$619,731.19	7.675	6.800%	\$539,331.12		
7.975	7.829%	\$619,507.19	7.675	6.800%	\$538,462.51		
7.975	7.829%	\$619,283.19	7.675	6.800%	\$537,593.91		
7.975	7.829%	\$619,059.19	7.675	6.800%	\$536,725.31		
7.975	7.829%	\$618,835.19	7.675	6.800%	\$535,856.71		
7.975	7.829%	\$618,611.19	7.675	6.800%	\$534,988.11		
7.975	7.829%	\$618,387.19	7.675	6.800%	\$534,119.51		
7.975	7.829%	\$618,163.19	7.675	6.800%	\$533,250.91		
7.975	7.829%	\$617,939.19	7.675	6.800%	\$532,382.31		
7.975	7.829%	\$617,715.19	7.675	6.800%	\$531,513.71		
7.975	7.829%	\$617,491.19	7.675	6.800%	\$530,645.11		
7.975	7.829%	\$617,267.19	7.675	6.800%	\$529,776.51		
7.975	7.829%	\$617,043.19	7.675	6.800%	\$528,907.91		
7.975	7.829%	\$616,819.19	7.675	6.800%	\$528,039.31		
7.975	7.829%	\$616,595.19	7.675	6.800%	\$527,170.71		
7.975	7.829%	\$616,371.19	7.675	6.800%	\$526,302.11		
7.975	7.829%	\$616,147.19	7.675	6.800%	\$525,433.51		
7.975	7.829%	\$615,923.19	7.675	6.800%	\$524,564.91		
7.975	7.829%	\$615,699.19	7.675	6.800%	\$523,696.31		
7.975	7.829%	\$615,475.19	7.675	6.800%	\$522,827.71		
7.975	7.829%	\$615,251.19	7.675	6.800%	\$521,959.11		
7.975	7.829%	\$615,027.19	7.675	6.800%	\$521,090.51		
7.975	7.829%	\$614,803.19	7.675	6.800%	\$520,221.91		
7.975	7.829%	\$614,579.19	7.675	6.800%	\$519,353.31		
7.975	7.829%	\$614,355.19	7.675	6.800%	\$518,484.71		
7.975	7.829%	\$614,131.19	7.675	6.800%	\$517,616.11		
7.975	7.829%	\$613,907.19	7.675	6.800%	\$516,747.51		
7.975	7.829%	\$613,683.19	7.675	6.800%	\$515,878.91		
7.975	7.829%	\$613,459.19	7.675	6.800%	\$515,010.31		
7.975	7.829%	\$613,235.19	7.675	6.800%	\$514,141.71		
7.975	7.829%	\$613,011.19	7.675	6.800%	\$513,273.11		
7.975	7.829%	\$612,787.19	7.675	6.800%	\$512,404.51		
7.975	7.829%	\$612,563.19	7.675	6.800%	\$511,535.91		
7.975	7.829%	\$612,339.19	7.675	6.800%	\$510,667.31		
7.975	7.829%	\$612,115.19	7.675	6.800%	\$509,798.71		
7.975	7.829%	\$611,891.19	7.675	6.800%	\$508,930.11		
7.975	7.829%	\$611,667.19	7.675	6.800%	\$508,061.51		
7.975	7.829%	\$611,443.19	7.675	6.800%	\$507,192.91		
7.975	7.829%	\$611,219.19	7.675	6.800%	\$506,324.31		
7.975	7.829%	\$610,995.19	7.675	6.800%	\$505,455.71		
7.975	7.829%	\$610,771.19	7.675	6.800%	\$504,587.11		
7.975	7.829%	\$610,547.19	7.675	6.800%	\$503,718.51		
7.975	7.829%	\$610,323.19	7.675	6.800%	\$502,849.91		
7.975	7.829%	\$610,099.19	7.675	6.800%	\$501,981.31		
7.975	7.829%	\$609,875.19	7.675	6.800%	\$501,112.71		
7.975	7.829%	\$609,651.19	7.675	6.800%	\$500,244.11		
7.975	7.829%	\$609,427.19	7.675	6.800%	\$499,375.51		
7.975	7.829%	\$609,203.19	7.675	6.800%	\$498,506.91		
7.975	7.829%	\$608,979.19	7.675	6.800%	\$497,638.31		
7.975	7.829%	\$608,755.19	7.675	6.800%	\$496,769.71		
7.975	7.829%	\$608,531.19	7.675	6.800%	\$495,901.11		
7.975	7.829%	\$608,307.19	7.675	6.800%	\$495,032.51		
7.975	7.829%	\$608,083.19	7.675	6.800%	\$494,163.91		
7.975	7.829%	\$607,859.19	7.675	6.800%	\$493,295.31		
7.975	7.829%	\$607,635.19	7.675	6.800%	\$492,426.71		
7.975	7.829%	\$607,411.19	7.675	6.800%	\$491,558.11		
7.975	7.829%	\$607,187.19	7.675	6.800%	\$490,689.51		
7.975	7.829%	\$606,963.19	7.675	6.800%	\$489,820.91		
7.975	7.829%	\$606,739.19	7.675	6.800%	\$488,952.31		
7.975	7.829%	\$606,515.19	7.675	6.800%	\$488,083.71		
7.975	7.829%	\$606,291.19	7.675	6.800%	\$487,215.11		
7.975	7.829%	\$606,067.19	7.675	6.800%	\$486,346.51		
7.975	7.829%	\$605,843.19	7.675	6.800%	\$485,477.91		
7.975	7.829%	\$605,619.19	7.675	6.800%	\$484,609.31		
7.975	7.829%	\$605,395.19	7.675	6.800%	\$483,740.71		
7.975	7.829%	\$605,171.19	7.675	6.800%	\$482,872.11		
7.975	7.829%	\$604,947.19	7.675	6.800%	\$482,003.51		
7.975	7.829%	\$604,723.19	7.675	6.800%	\$481,134.91		
7.975	7.829%	\$604,499.19	7.675	6.800%	\$480,266.31		
7.975	7.829%	\$604,275.19	7.675	6.800%	\$479,397.71		
7.975	7.829%	\$604,051.19	7.675	6.800%	\$478,529.11		
7.975	7.829%	\$603,827.19	7.675	6.800%	\$477,660.51		
7.975	7.829%	\$603,603.19	7.675	6.800%	\$476,791.91		
7.975	7.829%	\$603,379.19	7.675	6.800%	\$475,923.31		
7.975	7.829%	\$603,155.19	7.675	6.800%	\$475,054.71		
7.975	7.829%	\$602,931.19	7.675	6.800%	\$474,186.11		
7.975	7.829%	\$602,707.19	7.675	6.800%	\$473,317.51		
7.975	7.829%	\$602,483.19	7.675	6.800%	\$472,448.91		
7.975	7.829%	\$602,259.19	7.675	6.800%	\$471,580.31		
7.975	7.829%	\$602,035.19	7.675	6.800%	\$470,711.71		
7.975	7.829%	\$601,811.19	7.675	6.800%	\$469,843.11		
7.975	7.829%	\$601,587.19	7.675	6.800%	\$468,974.51		
7.975	7.829%	\$601,363.19	7.675	6.800%	\$468,105.91		
7.975	7.829%	\$601,139.19	7.675	6.800%	\$467,237.31		
7.975	7.829%	\$600,915.19	7.675	6.800%	\$466,368.71		
7.975	7.829%	\$600,691.19	7.675	6.800%	\$465,500.11		
7.975	7.829%	\$600,467.19	7.675	6.800%	\$464,631.51		
7.975	7.829%	\$600,243.19	7.675	6.800%	\$463,762.91		
7.975	7.829%	\$600,019.19	7.675	6.800%	\$462,894.31		

7







Jimmie Schindewolf, P.E.  
General Manager

November 16, 2006

**BOARD OF DIRECTORS**  
Alan J. Rendt, *President*  
Kelly Fessler, *Vice President*  
Lenox A. Sigler, *Secretary*  
James D. Pulliam, *Treasurer*  
Ron Graham, *Asst. Secretary*

Mr. Wayne Klotz, P.E.  
President  
Klotz Associates, Inc.  
1160 Dairy Ashford, Suite 500  
Houston, Texas 77079

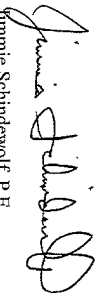
Re: Amended and Restated Agreement For Professional Engineering Services

Dear Mr. Klotz:

Transmitted herewith please find one fully executed duplicate original of the Amended and Restated Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and Klotz Associates, Inc. This Agreement was approved by the Authority Board of Directors at the November 6, 2006, Board meeting. I am also sending one duplicate original to Tom Rolan (Authority Program Director), one to Robin Bobbitt (Authority General Counsel), and I am retaining two for the Authority contract file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

  
Jimmie Schindewolf, P.E.  
General Manager

JAS/ir

Attachment

Cc: Robin S. Bobbitt, Johnson Radcliff Petrov & Bobbitt PLLC - w/attachment  
Tom Rolan, P.E., Turner Collier & Braden, Inc. - w/attachment  
Shovri Nandagiri, P.E., NHCRWA  
Cyndi Plunkert, NHCRWA - w/attachment

3648 FM 1960 West, Suite 110 ♦ Houston, TX 77068 ♦ 281-440-3924 ♦ Fax: 281-440-4104

Visit online: [www.nhcrwa.com](http://www.nhcrwa.com)

**AMENDED AND RESTATED AGREEMENT  
FOR PROFESSIONAL ENGINEERING SERVICES**

**(Klotz Associates, Inc.)**

THE STATE OF TEXAS       §  
  §  
COUNTY OF HARRIS       §

THIS AMENDED AND RESTATED AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Amended Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and Klotz Associates, Inc. (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects;

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

The Authority and the Engineer have previously entered into an Agreement for Professional Engineering Services; however, due to changed circumstances and the need for clarification and revision, the Authority and the Engineer desire to enter into this Amended Agreement;

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION I**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected in the detailed Scope of Services attached as **Appendices A and A-1** and that are specifically identified in the Scope of Services that will accompany each Work Authorization issued by the General Manager.
  
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional

services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).

3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.
4. "Design Phase Agreed Estimate" shall mean the estimate of probable Construction Cost for a Construction Package developed at the completion of the approved Preliminary Engineering Phase, updated at the completion of the Design Phase and agreed to in writing by the General Manager and the Engineer.
5. "Preliminary Phase Agreed Estimate" shall mean the estimate of probable Construction Cost developed and agreed to in writing by the General Manager and the Engineer prior to commencing work on the Preliminary Engineering Phase of the Project. This agreed estimate applies only to the Preliminary Engineering Phase.
6. "Program Manager" shall mean the Authority's manager of its water supply program.
7. "Project" shall mean a design and/or construction project of the Authority authorized by the General Manager through the issuance of a Work Authorization.

#### SECTION II

#### CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Amended Agreement, the General Manager of the Authority or his designee (hereinafter the "General Manager") may deliver to the Engineer written authorization (hereinafter known as "Work Authorization") in accordance with this Section for the performance of certain professional services with regard to specified Authority projects, which services the Engineer shall then perform in accordance with this Amended Agreement. The General Manager may authorize the Engineer to provide all or any of the engineering and related services that are listed in **Appendices A and A-1**, attached hereto and made a part hereof.

The Authority shall have no obligation to pay for any services hereunder that have been rendered without the prior Work Authorization of the General Manager. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the Authority with progress reports at such times and in such manner as may be requested by the General Manager. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the General Manager as soon as possible.

**SECTION III**  
**TIME OF PERFORMANCE**

Upon receipt of a Work Authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The Authority shall have no obligation to pay for a service performed after the required completion date for same, as set forth in its Work Authorization, except to the extent the date for required completion is extended and continuation of such service is approved by the General Manager.

**SECTION IV**

**THE ENGINEER'S COMPENSATION**

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blueprint drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof, costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Amended Agreement are described as follows:

Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in **Appendix C**.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.

For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.

The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### SECTION V

#### TIME OF PAYMENT

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Amended Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager", in a form suitable to the Authority, setting forth the services provided under this Amended Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person

performing the services and countersigned by his/her supervisor certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Amended Agreement have been performed. Within forty-five (45) days after the performance of all services provided for in this Amended Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Amended Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

#### **SECTION VI**

#### **TERMINATION**

Either party may terminate this Amended Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Amended Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Amended Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Amended Agreement, less such payments on account of the changes as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Amended Agreement shall be delivered to the Authority when and if this Amended Agreement is terminated.

#### **SECTION VII**

#### **NOTICE**

Any notice required to be given under the provisions of this Amended Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Amended Agreement, all notices shall be delivered to the following addresses:



To the Engineer:  
Klotz Associates, Inc.  
1160 Dairy Ashford Street, Suite 500  
Houston, Texas 77079

Attention: D. Wayne Klotz, P.E., President

To the Authority:  
North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Attention: General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### **SECTION VIII**

#### **SUCCESSORS AND ASSIGNS**

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Amended Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Amended Agreement. Neither the Authority nor the Engineer shall assign, sublet, or transfer its or his/her interest in this Amended Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

#### **SECTION IX**

#### **PUBLIC CONTACT**

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Amended Agreement or any requested service shall be referred to the General Manager.

#### **SECTION X**

#### **COMPLIANCE AND STANDARDS**

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the

Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### SECTION XI

#### LICENSE REQUIREMENTS

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Amended Agreement.

#### SECTION XII

#### INSURANCE AND INDEMNIFICATION

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Amended Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Amended Agreement and that of its subconsultants or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subconsultants (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.

**SECTION XIII**  
**OWNERSHIP OF PLANS, COPYRIGHT, AND**  
**OTHER INTELLECTUAL PROPERTY**

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproductions, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Amended Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Amended Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Amended Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Amended Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Amended Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Amended Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproductions, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement.

Copies of all complete or partially complete information, programs, Mylar reproductions, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement, shall also be delivered

by the Engineer to the General Manager when and if this Amended Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

#### **SECTION XIV**

#### **MODIFICATIONS**

This instrument contains the entire Amended Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

#### **SECTION XV**

#### **AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Amended Agreement and all questions as to the acceptable fulfillment of this Amended Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Amended Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Amended Agreement.

#### **SECTION XVI**

#### **SEVERABILITY**

Any provision or part of this Amended Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Amended Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**SECTION XVII**

**MERGER**

The Parties agree that this Amended Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Amended Agreement.

[The remainder of this page intentionally left blank.]

**SECTION XVIII  
EXECUTION**

The Authority executes this Amended Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Amended Agreement shall not become effective until executed by all parties hereto.

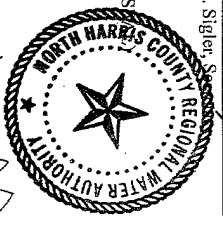
NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

By: *Alan J. Rendi*  
Alan J. Rendi, President  
Date Signed: 11/15/16

ATTEST:

By: *Lenox A. Sigler*  
Lenox A. Sigler, Secretary

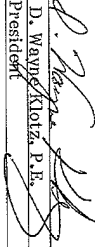
(AUTHORITY'S)



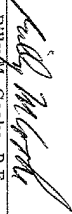
APPROVED:

By: *Jimmie Schindewolf*  
Jimmie Schindewolf, P.E.  
General Manager

KLOTZ ASSOCIATES, INC.

By:   
Name: D. WAYNE KLOTZ, P. II.  
Title: President  
Date Signed: November 13, 2006

ATTEST:

By:   
Name: BILLY M. COOKE, P. II.  
Title: Executive Vice President

APPENDIX A  
SCOPE OF SERVICES  
(Klotz Associates, Inc.)

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see **Appendix A-1**) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnects, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.



## APPENDIX A-1

### SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES

(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

1. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternative water line alignments considering all relevant factors and prepare schematic layouts for each alternative route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review.
  - i. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.

2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
  
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues

- associated with such submittals within fourteen (14) calendar days of receipt of submittals from the Program Manager.
- e. Prepare revisions to the contract documents (i.e., change orders) at no charge to the Authority when such change orders are required to make clarifications, correct discrepancies, errors or omissions to the contract documents.
  - f. When requested by the Program Manager, evaluate contractor changes and cost proposals and recommend action to the Program Manager.
  - g. Make monthly site visits to the Project site to observe the progress and quality of the executed work. Such site visits are to be coordinated with the Program Manager and a site visit report shall be submitted to the Program Manager after each such site visit, indicating observations related to the executed work.
  - h. Attend final Project walkthrough.
  - i. Prepare "record drawings" indicating changes to the contract drawings and showing significant changes made to the work during the construction of the Project. Such changes will be based upon marked-up "record drawings" furnished to the Engineer by the Program Manager and the construction contractor.

APPENDIX B  
HOURLY BILLING RATES  
(Klotz Associates, Inc.)

<u>Classification</u>	<u>Hourly Rate</u>
Principal	\$180.00
Senior Project Manager	165.00
Project Manager	150.00
Chief Engineer	150.00
Senior Project Engineer	130.00
Project Engineer	110.00
Graduate Engineer	100.00
Senior Designer	105.00
GIS Specialist	100.00
CADD Technician	80.00
CADD Operator	75.00
Clerical	65.00

- Notes:**
- (1) Above hourly rates are 2003 values. Additional classifications and subsequent year rates must be approved in writing by the General Manager.
  - (2) Subconsultant costs and other miscellaneous expenses as approved by the General Manager will be paid at cost plus 10%.
  - (3)

APPENDIX C  
CITY OF HOUSTON CURVES FOR MEDIAN COMPENSATION  
(Klotz Associates, Inc.)



**CITY OF HOUSTON**  
Public Works and Engineering  
Department

**Lao P. Brown**

Mayor

John C. Vandam Beugh, P.E.  
Director  
Public Works & Engineering  
P.O. Box 1082  
Houston, Texas 77251-1082  
713-847-6002  
713-847-6000  
www.ci.houston.tx.us

July 15, 2002

Christina M. Libbey, Executive Director  
HOUSTON - CEO  
1500 Texas Street, Suite 240  
Houston, Texas 77018

Dear Ms. Libbey:

PLEASE find enclosed the revised Curves of Median Compensation attached hereto. These curves end of the enclosed tables will be used for determining the engineering fees as appropriate in this Department until further notice. Sincerely,

John C. Vandam Beugh, P.E.  
Director  
Department of Public Works and Engineering

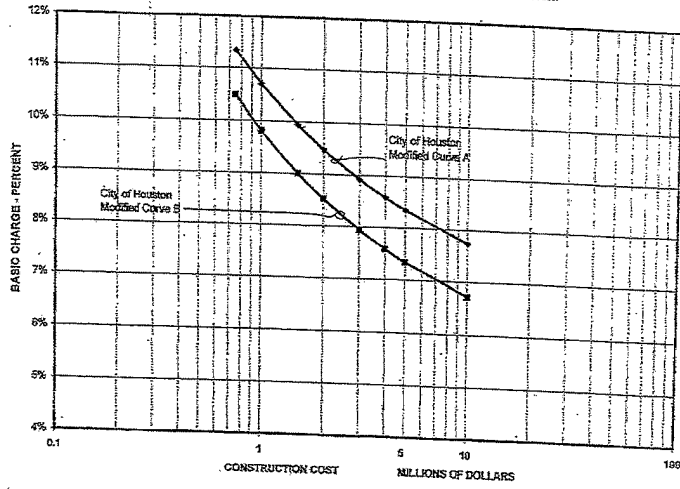
CC: Shewell Nandjigili, P.E.  
Port Taylor  
Port Taylor  
Rick Vasek - Aviation Department  
Mariquea MacShine - Building Services Department

Consultants: Rosen, Telle, Curran & Gentry, Inc., 4440 West Loop South, Suite 100, Houston, Texas 77025  
James D. Palmer, 4400 West Loop South, Suite 100, Houston, Texas 77025

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
Curves of Median Compensation  
Curves A and B

*Shawn Naudtsch*  
Shawn Naudtsch, P.E.  
Deputy Director

*Jon C. Vanden Bosch*  
Jon C. Vanden Bosch, P.E.  
Director



MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
0.760	11.947%	\$86,000.31	0.760	10.489%	\$79,000.04
0.778	11.774%	\$86,980.27	0.778	10.491%	\$80,006.49
0.800	11.489%	\$88,390.53	0.800	10.254%	\$82,000.00
0.825	11.126%	\$89,178.97	0.825	10.264%	\$83,000.00
0.860	11.059%	\$90,001.64	0.860	10.183%	\$84,000.00
0.900	10.995%	\$90,924.43	0.900	10.119%	\$85,000.00
0.950	10.932%	\$91,847.22	0.950	10.060%	\$86,000.00
0.980	10.874%	\$92,770.01	0.980	10.000%	\$87,000.00
0.990	10.817%	\$93,692.80	0.990	9.940%	\$88,000.00
1.000	10.760%	\$94,615.59	1.000	9.880%	\$89,000.00
1.020	10.702%	\$95,538.38	1.020	9.820%	\$90,000.00
1.050	10.644%	\$96,461.17	1.050	9.760%	\$91,000.00
1.075	10.586%	\$97,383.96	1.075	9.700%	\$92,000.00
1.100	10.528%	\$98,306.75	1.100	9.640%	\$93,000.00
1.125	10.470%	\$99,229.54	1.125	9.580%	\$94,000.00
1.150	10.412%	\$100,152.33	1.150	9.520%	\$95,000.00
1.175	10.354%	\$101,075.12	1.175	9.460%	\$96,000.00
1.200	10.296%	\$102,000.00	1.200	9.400%	\$97,000.00
1.225	10.238%	\$102,925.00	1.225	9.340%	\$98,000.00
1.250	10.180%	\$103,850.00	1.250	9.280%	\$99,000.00
1.275	10.122%	\$104,775.00	1.275	9.220%	\$100,000.00
1.300	10.064%	\$105,700.00	1.300	9.160%	\$101,000.00
1.325	10.006%	\$106,625.00	1.325	9.100%	\$102,000.00
1.350	9.948%	\$107,550.00	1.350	9.040%	\$103,000.00
1.375	9.890%	\$108,475.00	1.375	8.980%	\$104,000.00
1.400	9.832%	\$109,400.00	1.400	8.920%	\$105,000.00
1.425	9.774%	\$110,325.00	1.425	8.860%	\$106,000.00
1.450	9.716%	\$111,250.00	1.450	8.800%	\$107,000.00
1.475	9.658%	\$112,175.00	1.475	8.740%	\$108,000.00
1.500	9.600%	\$113,100.00	1.500	8.680%	\$109,000.00
1.525	9.542%	\$114,025.00	1.525	8.620%	\$110,000.00
1.550	9.484%	\$114,950.00	1.550	8.560%	\$111,000.00
1.575	9.426%	\$115,875.00	1.575	8.500%	\$112,000.00
1.600	9.368%	\$116,800.00	1.600	8.440%	\$113,000.00
1.625	9.310%	\$117,725.00	1.625	8.380%	\$114,000.00
1.650	9.252%	\$118,650.00	1.650	8.320%	\$115,000.00
1.675	9.194%	\$119,575.00	1.675	8.260%	\$116,000.00
1.700	9.136%	\$120,500.00	1.700	8.200%	\$117,000.00
1.725	9.078%	\$121,425.00	1.725	8.140%	\$118,000.00
1.750	9.020%	\$122,350.00	1.750	8.080%	\$119,000.00
1.775	8.962%	\$123,275.00	1.775	8.020%	\$120,000.00
1.800	8.904%	\$124,200.00	1.800	7.960%	\$121,000.00
1.825	8.846%	\$125,125.00	1.825	7.900%	\$122,000.00
1.850	8.788%	\$126,050.00	1.850	7.840%	\$123,000.00
1.875	8.730%	\$126,975.00	1.875	7.780%	\$124,000.00
1.900	8.672%	\$127,900.00	1.900	7.720%	\$125,000.00
1.925	8.614%	\$128,825.00	1.925	7.660%	\$126,000.00
1.950	8.556%	\$129,750.00	1.950	7.600%	\$127,000.00
1.975	8.498%	\$130,675.00	1.975	7.540%	\$128,000.00
2.000	8.440%	\$131,600.00	2.000	7.480%	\$129,000.00
2.025	8.382%	\$132,525.00	2.025	7.420%	\$130,000.00
2.050	8.324%	\$133,450.00	2.050	7.360%	\$131,000.00
2.075	8.266%	\$134,375.00	2.075	7.300%	\$132,000.00
2.100	8.208%	\$135,300.00	2.100	7.240%	\$133,000.00
2.125	8.150%	\$136,225.00	2.125	7.180%	\$134,000.00
2.150	8.092%	\$137,150.00	2.150	7.120%	\$135,000.00
2.175	8.034%	\$138,075.00	2.175	7.060%	\$136,000.00
2.200	7.976%	\$139,000.00	2.200	7.000%	\$137,000.00
2.225	7.918%	\$140,000.00	2.225	6.940%	\$138,000.00
2.250	7.860%	\$141,000.00	2.250	6.880%	\$139,000.00
2.275	7.802%	\$142,000.00	2.275	6.820%	\$140,000.00
2.300	7.744%	\$143,000.00	2.300	6.760%	\$141,000.00
2.325	7.686%	\$144,000.00	2.325	6.700%	\$142,000.00
2.350	7.628%	\$145,000.00	2.350	6.640%	\$143,000.00
2.375	7.570%	\$146,000.00	2.375	6.580%	\$144,000.00
2.400	7.512%	\$147,000.00	2.400	6.520%	\$145,000.00
2.425	7.454%	\$148,000.00	2.425	6.460%	\$146,000.00
2.450	7.396%	\$149,000.00	2.450	6.400%	\$147,000.00
2.475	7.338%	\$150,000.00	2.475	6.340%	\$148,000.00
2.500	7.280%	\$151,000.00	2.500	6.280%	\$149,000.00
2.525	7.222%	\$152,000.00	2.525	6.220%	\$150,000.00
2.550	7.164%	\$153,000.00	2.550	6.160%	\$151,000.00
2.575	7.106%	\$154,000.00	2.575	6.100%	\$152,000.00
2.600	7.048%	\$155,000.00	2.600	6.040%	\$153,000.00
2.625	6.990%	\$156,000.00	2.625	5.980%	\$154,000.00
2.650	6.932%	\$157,000.00	2.650	5.920%	\$155,000.00
2.675	6.874%	\$158,000.00	2.675	5.860%	\$156,000.00
2.700	6.816%	\$159,000.00	2.700	5.800%	\$157,000.00
2.725	6.758%	\$160,000.00	2.725	5.740%	\$158,000.00
2.750	6.700%	\$161,000.00	2.750	5.680%	\$159,000.00
2.775	6.642%	\$162,000.00	2.775	5.620%	\$160,000.00
2.800	6.584%	\$163,000.00	2.800	5.560%	\$161,000.00
2.825	6.526%	\$164,000.00	2.825	5.500%	\$162,000.00
2.850	6.468%	\$165,000.00	2.850	5.440%	\$163,000.00
2.875	6.410%	\$166,000.00	2.875	5.380%	\$164,000.00
2.900	6.352%	\$167,000.00	2.900	5.320%	\$165,000.00
2.925	6.294%	\$168,000.00	2.925	5.260%	\$166,000.00
2.950	6.236%	\$169,000.00	2.950	5.200%	\$167,000.00
2.975	6.178%	\$170,000.00	2.975	5.140%	\$168,000.00
3.000	6.120%	\$171,000.00	3.000	5.080%	\$169,000.00



MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
1,925	0.541%	\$188,084.17	1,925	0.683%	\$188,210.08
1,930	0.521%	\$185,005.33	1,930	0.682%	\$188,891.44
1,940	0.501%	\$182,002.79	1,940	0.682%	\$189,572.80
1,950	0.481%	\$179,000.25	1,950	0.682%	\$190,254.16
1,960	0.461%	\$176,000.70	1,960	0.682%	\$190,935.52
1,970	0.441%	\$173,001.15	1,970	0.683%	\$191,616.88
1,980	0.421%	\$170,001.60	1,980	0.683%	\$192,298.24
1,990	0.401%	\$167,002.05	1,990	0.683%	\$192,979.60
2,000	0.381%	\$164,002.50	2,000	0.683%	\$193,660.96
2,010	0.361%	\$161,002.95	2,010	0.683%	\$194,342.32
2,020	0.341%	\$158,003.40	2,020	0.683%	\$195,023.68
2,030	0.321%	\$155,003.85	2,030	0.683%	\$195,705.04
2,040	0.301%	\$152,004.30	2,040	0.683%	\$196,386.40
2,050	0.281%	\$149,004.75	2,050	0.683%	\$197,067.76
2,060	0.261%	\$146,005.20	2,060	0.683%	\$197,749.12
2,070	0.241%	\$143,005.65	2,070	0.683%	\$198,430.48
2,080	0.221%	\$140,006.10	2,080	0.683%	\$199,111.84
2,090	0.201%	\$137,006.55	2,090	0.683%	\$199,793.20
2,100	0.181%	\$134,007.00	2,100	0.683%	\$200,474.56
2,110	0.161%	\$131,007.45	2,110	0.683%	\$201,155.92
2,120	0.141%	\$128,007.90	2,120	0.683%	\$201,837.28
2,130	0.121%	\$125,008.35	2,130	0.683%	\$202,518.64
2,140	0.101%	\$122,008.80	2,140	0.683%	\$203,200.00
2,150	0.081%	\$119,009.25	2,150	0.683%	\$203,881.36
2,160	0.061%	\$116,009.70	2,160	0.683%	\$204,562.72
2,170	0.041%	\$113,010.15	2,170	0.683%	\$205,244.08
2,180	0.021%	\$110,010.60	2,180	0.683%	\$205,925.44
2,190	0.001%	\$107,011.05	2,190	0.683%	\$206,606.80
2,200		\$104,011.50	2,200	0.683%	\$207,288.16
2,210		\$101,011.95	2,210	0.683%	\$207,969.52
2,220		\$98,012.40	2,220	0.683%	\$208,650.88
2,230		\$95,012.85	2,230	0.683%	\$209,332.24
2,240		\$92,013.30	2,240	0.683%	\$210,013.60
2,250		\$89,013.75	2,250	0.683%	\$210,694.96
2,260		\$86,014.20	2,260	0.683%	\$211,376.32
2,270		\$83,014.65	2,270	0.683%	\$212,057.68
2,280		\$80,015.10	2,280	0.683%	\$212,739.04
2,290		\$77,015.55	2,290	0.683%	\$213,420.40
2,300		\$74,016.00	2,300	0.683%	\$214,101.76
2,310		\$71,016.45	2,310	0.683%	\$214,783.12
2,320		\$68,016.90	2,320	0.683%	\$215,464.48
2,330		\$65,017.35	2,330	0.683%	\$216,145.84
2,340		\$62,017.80	2,340	0.683%	\$216,827.20
2,350		\$59,018.25	2,350	0.683%	\$217,508.56
2,360		\$56,018.70	2,360	0.683%	\$218,189.92
2,370		\$53,019.15	2,370	0.683%	\$218,871.28
2,380		\$50,019.60	2,380	0.683%	\$219,552.64
2,390		\$47,020.05	2,390	0.683%	\$220,234.00
2,400		\$44,020.50	2,400	0.683%	\$220,915.36
2,410		\$41,020.95	2,410	0.683%	\$221,596.72
2,420		\$38,021.40	2,420	0.683%	\$222,278.08
2,430		\$35,021.85	2,430	0.683%	\$222,959.44
2,440		\$32,022.30	2,440	0.683%	\$223,640.80
2,450		\$29,022.75	2,450	0.683%	\$224,322.16
2,460		\$26,023.20	2,460	0.683%	\$225,003.52
2,470		\$23,023.65	2,470	0.683%	\$225,684.88
2,480		\$20,024.10	2,480	0.683%	\$226,366.24
2,490		\$17,024.55	2,490	0.683%	\$227,047.60
2,500		\$14,025.00	2,500	0.683%	\$227,728.96
2,510		\$11,025.45	2,510	0.683%	\$228,410.32
2,520		\$8,025.90	2,520	0.683%	\$229,091.68
2,530		\$5,026.35	2,530	0.683%	\$229,773.04
2,540		\$2,026.80	2,540	0.683%	\$230,454.40
2,550		\$0,027.25	2,550	0.683%	\$231,135.76
2,560		\$0,027.70	2,560	0.683%	\$231,817.12
2,570		\$0,028.15	2,570	0.683%	\$232,498.48
2,580		\$0,028.60	2,580	0.683%	\$233,179.84
2,590		\$0,029.05	2,590	0.683%	\$233,861.20
2,600		\$0,029.50	2,600	0.683%	\$234,542.56
2,610		\$0,029.95	2,610	0.683%	\$235,223.92
2,620		\$0,030.40	2,620	0.683%	\$235,905.28
2,630		\$0,030.85	2,630	0.683%	\$236,586.64
2,640		\$0,031.30	2,640	0.683%	\$237,268.00
2,650		\$0,031.75	2,650	0.683%	\$237,949.36
2,660		\$0,032.20	2,660	0.683%	\$238,630.72
2,670		\$0,032.65	2,670	0.683%	\$239,312.08
2,680		\$0,033.10	2,680	0.683%	\$240,000.00
2,690		\$0,033.55	2,690	0.683%	\$240,688.00
2,700		\$0,034.00	2,700	0.683%	\$241,376.00
2,710		\$0,034.45	2,710	0.683%	\$242,064.00
2,720		\$0,034.90	2,720	0.683%	\$242,752.00
2,730		\$0,035.35	2,730	0.683%	\$243,440.00
2,740		\$0,035.80	2,740	0.683%	\$244,128.00
2,750		\$0,036.25	2,750	0.683%	\$244,816.00
2,760		\$0,036.70	2,760	0.683%	\$245,504.00
2,770		\$0,037.15	2,770	0.683%	\$246,192.00
2,780		\$0,037.60	2,780	0.683%	\$246,880.00
2,790		\$0,038.05	2,790	0.683%	\$247,568.00
2,800		\$0,038.50	2,800	0.683%	\$248,256.00
2,810		\$0,038.95	2,810	0.683%	\$248,944.00
2,820		\$0,039.40	2,820	0.683%	\$249,632.00
2,830		\$0,039.85	2,830	0.683%	\$250,320.00
2,840		\$0,040.30	2,840	0.683%	\$251,008.00
2,850		\$0,040.75	2,850	0.683%	\$251,696.00
2,860		\$0,041.20	2,860	0.683%	\$252,384.00
2,870		\$0,041.65	2,870	0.683%	\$253,072.00
2,880		\$0,042.10	2,880	0.683%	\$253,760.00
2,890		\$0,042.55	2,890	0.683%	\$254,448.00
2,900		\$0,043.00	2,900	0.683%	\$255,136.00
2,910		\$0,043.45	2,910	0.683%	\$255,824.00
2,920		\$0,043.90	2,920	0.683%	\$256,512.00
2,930		\$0,044.35	2,930	0.683%	\$257,200.00
2,940		\$0,044.80	2,940	0.683%	\$257,888.00
2,950		\$0,045.25	2,950	0.683%	\$258,576.00
2,960		\$0,045.70	2,960	0.683%	\$259,264.00
2,970		\$0,046.15	2,970	0.683%	\$259,952.00
2,980		\$0,046.60	2,980	0.683%	\$260,640.00
2,990		\$0,047.05	2,990	0.683%	\$261,328.00
3,000		\$0,047.50	3,000	0.683%	\$262,016.00
3,010		\$0,047.95	3,010	0.683%	\$262,704.00
3,020		\$0,048.40	3,020	0.683%	\$263,392.00
3,030		\$0,048.85	3,030	0.683%	\$264,080.00
3,040		\$0,049.30	3,040	0.683%	\$264,768.00
3,050		\$0,049.75	3,050	0.683%	\$265,456.00
3,060		\$0,050.20	3,060	0.683%	\$266,144.00
3,070		\$0,050.65	3,070	0.683%	\$266,832.00
3,080		\$0,051.10	3,080	0.683%	\$267,520.00
3,090		\$0,051.55	3,090	0.683%	\$268,208.00
3,100		\$0,052.00	3,100	0.683%	\$268,896.00
3,110		\$0,052.45	3,110	0.683%	\$269,584.00
3,120		\$0,052.90	3,120	0.683%	\$270,272.00
3,130		\$0,053.35	3,130	0.683%	\$270,960.00
3,140		\$0,053.80	3,140	0.683%	\$271,648.00
3,150		\$0,054.25	3,150	0.683%	\$272,336.00
3,160		\$0,054.70	3,160	0.683%	\$273,024.00
3,170		\$0,055.15	3,170	0.683%	\$273,712.00
3,180		\$0,055.60	3,180	0.683%	\$274,400.00
3,190		\$0,056.05	3,190	0.683%	\$275,088.00
3,200		\$0,056.50	3,200	0.683%	\$275,776.00
3,210		\$0,056.95	3,210	0.683%	\$276,464.00
3,220		\$0,057.40	3,220	0.683%	\$277,152.00
3,230		\$0,057.85	3,230	0.683%	\$277,840.00
3,240		\$0,058.30	3,240	0.683%	\$278,528.00
3,250		\$0,058.75	3,250	0.683%	\$279,216.00
3,260		\$0,059.20	3,260	0.683%	\$279,904.00
3,270		\$0,059.65	3,270	0.683%	\$280,592.00
3,280		\$0,060.10	3,280	0.683%	\$281,280.00
3,290		\$0,060.55	3,290	0.683%	\$281,968.00
3,300		\$0,061.00	3,300	0.683%	\$282,656.00
3,310		\$0,061.45	3,310	0.683%	\$283,344.00
3,320		\$0,061.90	3,320	0.683%	\$284,032.00
3,330		\$0,062.35	3,330	0.683%	\$284,720.00
3,340		\$0,062.80	3,340	0.683%	\$285,408.00
3,350		\$0,063.25	3,350	0.683%	\$286,096.00
3,360		\$0,063.70	3,360	0.683%	\$286,784.00
3,370		\$0,064.15	3,370	0.683%	\$287,472.00
3,380		\$0,064.60	3,380	0.683%	\$288,160.00
3,390		\$0,065.05	3,390	0.683%	\$288,848.00
3,400		\$0,065.50	3,400	0.683%	\$289,536.00
3,410		\$0,065.95	3,410	0.683%	\$290,224.00
3,420		\$0,066.40	3,420	0.683%	\$290,912.00
3,430		\$0,066.85	3,430	0.683%	\$291,600.00
3,440		\$0,067.30	3,440	0.683%	\$292,288.00
3,450		\$0,067.75	3,450	0.683%	\$292,976.00
3,460		\$0,068.20	3,460	0.683%	\$293,664.00
3,470		\$0,068.65	3,470	0.683%	\$294,352.00
3,480		\$0,069.10	3,480	0.683%	\$295,040.00
3,490		\$0,069.55	3,490	0.683%	\$295,728.00
3,500		\$0,070.00	3,500	0.683%	\$296,416.00
3,510		\$0,070.45	3,510	0.683%	\$297,104.00
3,520		\$0,070.90	3,520	0.683%	\$297,792.00
3,530		\$0,071.35	3,530	0.683%	\$298,480.00
3,540		\$0,071.80	3,540	0.683%	\$299,168.00
3,550		\$0,072.25	3,550	0.683%	\$299,856.00
3,560		\$0,072.70	3,560	0.683%	\$300,544.00
3,570		\$0,073.15	3,570	0.683%	\$301,232.00
3,580		\$0,073.60	3,580	0.683%	\$301,920.00
3,590		\$0,074.05	3,590	0.683%	\$302,608.00
3,600		\$0,074.50	3,600	0.683%	\$303,296.00
3,610		\$0,074.95	3,610	0.683%	\$303,984.00
3,620		\$0,075.40	3,620	0.683%	\$304,672.00
3,630		\$0,075.85	3,630	0.683%	\$305,360.00
3,640		\$0,076.30	3,640	0.683%	\$306,048.00
3,650		\$0,076.75	3,650	0.683%	\$306,736.00
3,660		\$0,077.20	3,660	0.683%	\$307,424.00
3,670		\$0,077.65	3,670	0.683%	\$308,112.00
3,680		\$0,078.10	3,680	0.683%	\$308,800.00
3,690		\$0,078.55	3,690	0.683%	\$309,488.00
3,700		\$0,079.00	3,700	0.683%	\$310,176.00

02/26/2012

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
3,100	0.8811%	\$275,333.41	3,100	7.689%	\$244,740.37
3,110	0.8811%	\$277,232.10	3,125	7.689%	\$246,490.23
3,120	0.8811%	\$279,130.79	3,150	7.689%	\$248,080.69
3,130	0.8811%	\$281,029.48	3,175	7.689%	\$249,671.15
3,140	0.8811%	\$282,928.17	3,200	7.689%	\$251,261.61
3,150	0.8811%	\$284,826.86	3,225	7.689%	\$252,852.07
3,160	0.8811%	\$286,725.55	3,250	7.689%	\$254,442.53
3,170	0.8811%	\$288,624.24	3,275	7.689%	\$256,032.99
3,180	0.8811%	\$290,522.93	3,300	7.689%	\$257,623.45
3,190	0.8811%	\$292,421.62	3,325	7.689%	\$259,213.91
3,200	0.8811%	\$294,320.31	3,350	7.689%	\$260,804.37
3,210	0.8811%	\$296,219.00	3,375	7.689%	\$262,394.83
3,220	0.8811%	\$298,117.69	3,400	7.689%	\$263,985.29
3,230	0.8811%	\$299,999.99	3,425	7.689%	\$265,575.75
3,240	0.8811%	\$301,882.29	3,450	7.689%	\$267,166.21
3,250	0.8811%	\$303,764.58	3,475	7.689%	\$268,756.67
3,260	0.8811%	\$305,646.88	3,500	7.689%	\$270,347.13
3,270	0.8811%	\$307,529.17	3,525	7.689%	\$271,937.59
3,280	0.8811%	\$309,411.47	3,550	7.689%	\$273,528.05
3,290	0.8811%	\$311,293.76	3,575	7.689%	\$275,118.51
3,300	0.8811%	\$313,176.06	3,600	7.689%	\$276,708.97
3,310	0.8811%	\$315,058.35	3,625	7.689%	\$278,299.43
3,320	0.8811%	\$316,940.65	3,650	7.689%	\$279,889.89
3,330	0.8811%	\$318,822.94	3,675	7.689%	\$281,480.35
3,340	0.8811%	\$320,705.24	3,700	7.689%	\$283,070.81
3,350	0.8811%	\$322,587.53	3,725	7.689%	\$284,661.27
3,360	0.8811%	\$324,469.83	3,750	7.689%	\$286,251.73
3,370	0.8811%	\$326,352.12	3,775	7.689%	\$287,842.19
3,380	0.8811%	\$328,234.42	3,800	7.689%	\$289,432.65
3,390	0.8811%	\$330,116.71	3,825	7.689%	\$291,023.11
3,400	0.8811%	\$332,000.00	3,850	7.689%	\$292,613.57
3,410	0.8811%	\$333,882.29	3,875	7.689%	\$294,204.03
3,420	0.8811%	\$335,764.58	3,900	7.689%	\$295,794.49
3,430	0.8811%	\$337,646.88	3,925	7.689%	\$297,384.95
3,440	0.8811%	\$339,529.17	3,950	7.689%	\$298,975.41
3,450	0.8811%	\$341,411.47	3,975	7.689%	\$300,565.87
3,460	0.8811%	\$343,293.76	4,000	7.689%	\$302,156.33
3,470	0.8811%	\$345,176.06	4,025	7.689%	\$303,746.79
3,480	0.8811%	\$347,058.35	4,050	7.689%	\$305,337.25
3,490	0.8811%	\$348,940.65	4,075	7.689%	\$306,927.71
3,500	0.8811%	\$350,822.94	4,100	7.689%	\$308,518.17
3,510	0.8811%	\$352,705.24	4,125	7.689%	\$310,108.63
3,520	0.8811%	\$354,587.53	4,150	7.689%	\$311,699.09
3,530	0.8811%	\$356,469.83	4,175	7.689%	\$313,289.55
3,540	0.8811%	\$358,352.12	4,200	7.689%	\$314,879.99
3,550	0.8811%	\$360,234.42	4,225	7.689%	\$316,470.45
3,560	0.8811%	\$362,116.71	4,250	7.689%	\$318,060.91
3,570	0.8811%	\$364,000.00	4,280	7.689%	\$320,246.37
3,580	0.8811%	\$365,882.29			
3,590	0.8811%	\$367,764.58			
3,600	0.8811%	\$369,646.88			
3,610	0.8811%	\$371,529.17			
3,620	0.8811%	\$373,411.47			
3,630	0.8811%	\$375,293.76			
3,640	0.8811%	\$377,176.06			
3,650	0.8811%	\$379,058.35			
3,660	0.8811%	\$380,940.65			
3,670	0.8811%	\$382,822.94			
3,680	0.8811%	\$384,705.24			
3,690	0.8811%	\$386,587.53			
3,700	0.8811%	\$388,469.83			
3,710	0.8811%	\$390,352.12			
3,720	0.8811%	\$392,234.42			
3,730	0.8811%	\$394,116.71			
3,740	0.8811%	\$396,000.00			
3,750	0.8811%	\$397,882.29			
3,760	0.8811%	\$399,764.58			
3,770	0.8811%	\$401,646.88			
3,780	0.8811%	\$403,529.17			
3,790	0.8811%	\$405,411.47			
3,800	0.8811%	\$407,293.76			
3,810	0.8811%	\$409,176.06			
3,820	0.8811%	\$411,058.35			
3,830	0.8811%	\$412,940.65			
3,840	0.8811%	\$414,822.94			
3,850	0.8811%	\$416,705.24			
3,860	0.8811%	\$418,587.53			
3,870	0.8811%	\$420,469.83			
3,880	0.8811%	\$422,352.12			
3,890	0.8811%	\$424,234.42			
3,900	0.8811%	\$426,116.71			
3,910	0.8811%	\$428,000.00			
3,920	0.8811%	\$429,882.29			
3,930	0.8811%	\$431,764.58			
3,940	0.8811%	\$433,646.88			
3,950	0.8811%	\$435,529.17			
3,960	0.8811%	\$437,411.47			
3,970	0.8811%	\$439,293.76			
3,980	0.8811%	\$441,176.06			
3,990	0.8811%	\$443,058.35			
4,000	0.8811%	\$444,940.65			
4,010	0.8811%	\$446,822.94			
4,020	0.8811%	\$448,705.24			
4,030	0.8811%	\$450,587.53			
4,040	0.8811%	\$452,469.83			
4,050	0.8811%	\$454,352.12			
4,060	0.8811%	\$456,234.42			
4,070	0.8811%	\$458,116.71			
4,080	0.8811%	\$460,000.00			
4,090	0.8811%	\$461,882.29			
4,100	0.8811%	\$463,764.58			
4,110	0.8811%	\$465,646.88			
4,120	0.8811%	\$467,529.17			
4,130	0.8811%	\$469,411.47			
4,140	0.8811%	\$471,293.76			
4,150	0.8811%	\$473,176.06			
4,160	0.8811%	\$475,058.35			
4,170	0.8811%	\$476,940.65			
4,180	0.8811%	\$478,822.94			
4,190	0.8811%	\$480,705.24			
4,200	0.8811%	\$482,587.53			
4,210	0.8811%	\$484,469.83			
4,220	0.8811%	\$486,352.12			
4,230	0.8811%	\$488,234.42			
4,240	0.8811%	\$490,116.71			
4,250	0.8811%	\$492,000.00			

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07/26/2022

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
4,275	0.630%	\$269,738.18	4,275	7.610%	\$321,003.75		
4,300	0.630%	\$269,738.18	4,300	7.604%	\$322,084.61		
4,325	0.630%	\$269,738.18	4,325	7.601%	\$323,165.47		
4,350	0.630%	\$269,738.18	4,350	7.598%	\$324,246.33		
4,375	0.630%	\$269,738.18	4,375	7.595%	\$325,327.19		
4,400	0.630%	\$269,738.18	4,400	7.592%	\$326,408.05		
4,425	0.630%	\$269,738.18	4,425	7.589%	\$327,488.91		
4,450	0.630%	\$269,738.18	4,450	7.586%	\$328,569.77		
4,475	0.630%	\$269,738.18	4,475	7.583%	\$329,650.63		
4,500	0.630%	\$269,738.18	4,500	7.580%	\$330,731.49		
4,525	0.630%	\$269,738.18	4,525	7.577%	\$331,812.35		
4,550	0.630%	\$269,738.18	4,550	7.574%	\$332,893.21		
4,575	0.630%	\$269,738.18	4,575	7.571%	\$333,974.07		
4,600	0.630%	\$269,738.18	4,600	7.568%	\$335,054.93		
4,625	0.630%	\$269,738.18	4,625	7.565%	\$336,135.79		
4,650	0.630%	\$269,738.18	4,650	7.562%	\$337,216.65		
4,675	0.630%	\$269,738.18	4,675	7.559%	\$338,297.51		
4,700	0.630%	\$269,738.18	4,700	7.556%	\$339,378.37		
4,725	0.630%	\$269,738.18	4,725	7.553%	\$340,459.23		
4,750	0.630%	\$269,738.18	4,750	7.550%	\$341,540.09		
4,775	0.630%	\$269,738.18	4,775	7.547%	\$342,620.95		
4,800	0.630%	\$269,738.18	4,800	7.544%	\$343,701.81		
4,825	0.630%	\$269,738.18	4,825	7.541%	\$344,782.67		
4,850	0.630%	\$269,738.18	4,850	7.538%	\$345,863.53		
4,875	0.630%	\$269,738.18	4,875	7.535%	\$346,944.39		
4,900	0.630%	\$269,738.18	4,900	7.532%	\$348,025.25		
4,925	0.630%	\$269,738.18	4,925	7.529%	\$349,106.11		
4,950	0.630%	\$269,738.18	4,950	7.526%	\$350,186.97		
4,975	0.630%	\$269,738.18	4,975	7.523%	\$351,267.83		
5,000	0.630%	\$269,738.18	5,000	7.520%	\$352,348.69		
5,025	0.630%	\$269,738.18	5,025	7.517%	\$353,429.55		
5,050	0.630%	\$269,738.18	5,050	7.514%	\$354,510.41		
5,075	0.630%	\$269,738.18	5,075	7.511%	\$355,591.27		
5,100	0.630%	\$269,738.18	5,100	7.508%	\$356,672.13		
5,125	0.630%	\$269,738.18	5,125	7.505%	\$357,752.99		
5,150	0.630%	\$269,738.18	5,150	7.502%	\$358,833.85		
5,175	0.630%	\$269,738.18	5,175	7.499%	\$359,914.71		
5,200	0.630%	\$269,738.18	5,200	7.496%	\$360,995.57		
5,225	0.630%	\$269,738.18	5,225	7.493%	\$362,076.43		
5,250	0.630%	\$269,738.18	5,250	7.490%	\$363,157.29		
5,275	0.630%	\$269,738.18	5,275	7.487%	\$364,238.15		
5,300	0.630%	\$269,738.18	5,300	7.484%	\$365,319.01		
5,325	0.630%	\$269,738.18	5,325	7.481%	\$366,400.87		
5,350	0.630%	\$269,738.18	5,350	7.478%	\$367,481.73		
5,375	0.630%	\$269,738.18	5,375	7.475%	\$368,562.59		
5,400	0.630%	\$269,738.18	5,400	7.472%	\$369,643.45		
5,425	0.630%	\$269,738.18	5,425	7.469%	\$370,724.31		
5,450	0.630%	\$269,738.18	5,450	7.466%	\$371,805.17		
5,475	0.630%	\$269,738.18	5,475	7.463%	\$372,886.03		
5,500	0.630%	\$269,738.18	5,500	7.460%	\$373,966.89		
5,525	0.630%	\$269,738.18	5,525	7.457%	\$375,047.75		
5,550	0.630%	\$269,738.18	5,550	7.454%	\$376,128.61		
5,575	0.630%	\$269,738.18	5,575	7.451%	\$377,209.47		
5,600	0.630%	\$269,738.18	5,600	7.448%	\$378,290.33		
5,625	0.630%	\$269,738.18	5,625	7.445%	\$379,371.19		
5,650	0.630%	\$269,738.18	5,650	7.442%	\$380,452.05		
5,675	0.630%	\$269,738.18	5,675	7.439%	\$381,532.91		
5,700	0.630%	\$269,738.18	5,700	7.436%	\$382,613.77		
5,725	0.630%	\$269,738.18	5,725	7.433%	\$383,694.63		
5,750	0.630%	\$269,738.18	5,750	7.430%	\$384,775.49		
5,775	0.630%	\$269,738.18	5,775	7.427%	\$385,856.35		
5,800	0.630%	\$269,738.18	5,800	7.424%	\$386,937.21		
5,825	0.630%	\$269,738.18	5,825	7.421%	\$388,018.07		
5,850	0.630%	\$269,738.18	5,850	7.418%	\$389,098.93		
5,875	0.630%	\$269,738.18	5,875	7.415%	\$390,179.79		
5,900	0.630%	\$269,738.18	5,900	7.412%	\$391,260.65		
5,925	0.630%	\$269,738.18	5,925	7.409%	\$392,341.51		
5,950	0.630%	\$269,738.18	5,950	7.406%	\$393,422.37		
5,975	0.630%	\$269,738.18	5,975	7.403%	\$394,503.23		
6,000	0.630%	\$269,738.18	6,000	7.400%	\$395,584.09		
6,025	0.630%	\$269,738.18	6,025	7.397%	\$396,664.95		
6,050	0.630%	\$269,738.18	6,050	7.394%	\$397,745.81		
6,075	0.630%	\$269,738.18	6,075	7.391%	\$398,826.67		
6,100	0.630%	\$269,738.18	6,100	7.388%	\$399,907.53		
6,125	0.630%	\$269,738.18	6,125	7.385%	\$400,988.39		
6,150	0.630%	\$269,738.18	6,150	7.382%	\$402,069.25		
6,175	0.630%	\$269,738.18	6,175	7.379%	\$403,150.11		
6,200	0.630%	\$269,738.18	6,200	7.376%	\$404,230.97		
6,225	0.630%	\$269,738.18	6,225	7.373%	\$405,311.83		
6,250	0.630%	\$269,738.18	6,250	7.370%	\$406,392.69		
6,275	0.630%	\$269,738.18	6,275	7.367%	\$407,473.55		
6,300	0.630%	\$269,738.18	6,300	7.364%	\$408,554.41		
6,325	0.630%	\$269,738.18	6,325	7.361%	\$409,635.27		
6,350	0.630%	\$269,738.18	6,350	7.358%	\$410,716.13		
6,375	0.630%	\$269,738.18	6,375	7.355%	\$411,796.99		
6,400	0.630%	\$269,738.18	6,400	7.352%	\$412,877.85		
6,425	0.630%	\$269,738.18	6,425	7.349%	\$413,958.71		
6,450	0.630%	\$269,738.18	6,450	7.346%	\$415,039.57		
6,475	0.630%	\$269,738.18	6,475	7.343%	\$416,120.43		
6,500	0.630%	\$269,738.18	6,500	7.340%	\$417,201.29		
6,525	0.630%	\$269,738.18	6,525	7.337%	\$418,282.15		
6,550	0.630%	\$269,738.18	6,550	7.334%	\$419,363.01		
6,575	0.630%	\$269,738.18	6,575	7.331%	\$420,443.87		
6,600	0.630%	\$269,738.18	6,600	7.328%	\$421,524.73		
6,625	0.630%	\$269,738.18	6,625	7.325%	\$422,605.59		
6,650	0.630%	\$269,738.18	6,650	7.322%	\$423,686.45		
6,675	0.630%	\$269,738.18	6,675	7.319%	\$424,767.31		
6,700	0.630%	\$269,738.18	6,700	7.316%	\$425,848.17		
6,725	0.630%	\$269,738.18	6,725	7.313%	\$426,929.03		
6,750	0.630%	\$269,738.18	6,750	7.310%	\$428,009.89		
6,775	0.630%	\$269,738.18	6,775	7.307%	\$429,090.75		
6,800	0.630%	\$269,738.18	6,800	7.304%	\$430,171.61		
6,825	0.630%	\$269,738.18	6,825	7.301%	\$431,252.47		
6,850	0.630%	\$269,738.18	6,850	7.298%	\$432,333.33		
6,875	0.630%	\$269,738.18	6,875	7.295%	\$433,414.19		
6,900	0.630%	\$269,738.18	6,900	7.292%	\$434,495.05		
6,925	0.630%	\$269,738.18	6,925	7.289%	\$435,575.91		
6,950	0.630%	\$269,738.18	6,950	7.286%	\$436,656.77		
6,975	0.630%	\$269,738.18	6,975	7.283%	\$437,737.63		
7,000	0.630%	\$269,738.18	7,000	7.280%	\$438,818.49		
7,025	0.630%	\$269,738.18	7,025	7.277%	\$439,899.35		
7,050	0.630%	\$269,738.18	7,050	7.274%	\$440,980.21		
7,075	0.630%	\$269,738.18	7,075	7.271%	\$442,061.07		
7,100	0.630%	\$269,738.18	7,100	7.268%	\$443,141.93		
7,125	0.630%	\$269,738.18	7,125	7.265%	\$444,222.79		
7,150	0.630%	\$269,738.18	7,150	7.262%	\$445,303.65		
7,175	0.630%	\$269,738.18	7,175	7.259%	\$446,384.51		
7,200	0.630%	\$269,738.18	7,200	7.256%	\$447,465.37		
7,225	0.630%	\$269,738.18	7,225	7.253%	\$448,546.23		
7,250	0.630%	\$269,738.18	7,250	7.250%	\$449,627.09		
7,275	0.630%	\$269,738.18	7,275	7.247%	\$450,707.95		
7,300	0.630%	\$269,738.18	7,300	7.244%	\$451,788.81		
7,325	0.630%	\$269,738.18	7,325	7.241%	\$452,869.67		
7,350	0.630%	\$269,738.18	7,350	7.238%	\$453,950.53		
7,375	0.630%	\$269,738.18	7,375	7.235%	\$455,031.39		
7,400	0.630%	\$269,738.18	7,400	7.232%	\$456,112.25		
7,425	0.630%	\$269,738.18	7,425	7.229%	\$457,193.11		
7,450	0.630%	\$269,738.18	7,450	7.226%	\$458,273.97		
7,475	0.630%	\$269,738.18	7,475	7.223%	\$459,354.83		
7,500	0.630%	\$269,738.18	7,500	7.220%	\$460,435.69		
7,525	0.630%	\$269,738.18	7,525	7.217%	\$461,516.55		

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Contribution In Millions	Percent	Fig	Cost of Contribution In Millions	Percent	Fig
5.400	8.280%	\$460,123.22	5.480	7.245%	\$358,298.49
5.475	8.285%	\$461,914.42	5.475	7.248%	\$359,980.91
5.550	8.290%	\$463,704.00	5.500	7.244%	\$358,411.93
5.625	8.295%	\$465,492.44	5.525	7.239%	\$358,072.93
5.700	8.300%	\$467,279.44	5.550	7.235%	\$357,734.93
5.775	8.305%	\$469,065.44	5.575	7.230%	\$357,397.44
5.850	8.310%	\$470,850.44	5.600	7.226%	\$357,060.44
5.925	8.315%	\$472,635.44	5.625	7.221%	\$356,723.44
6.000	8.320%	\$474,420.44	5.650	7.217%	\$356,386.44
6.075	8.325%	\$476,205.44	5.675	7.212%	\$356,049.44
6.150	8.330%	\$477,990.44	5.700	7.208%	\$355,712.44
6.225	8.335%	\$479,775.44	5.725	7.204%	\$355,375.44
6.300	8.340%	\$481,560.44	5.750	7.200%	\$355,038.44
6.375	8.345%	\$483,345.44	5.775	7.196%	\$354,701.44
6.450	8.350%	\$485,130.44	5.800	7.192%	\$354,364.44
6.525	8.355%	\$486,915.44	5.825	7.188%	\$354,027.44
6.600	8.360%	\$488,700.44	5.850	7.184%	\$353,690.44
6.675	8.365%	\$490,485.44	5.875	7.180%	\$353,353.44
6.750	8.370%	\$492,270.44	5.900	7.176%	\$353,016.44
6.825	8.375%	\$494,055.44	5.925	7.172%	\$352,679.44
6.900	8.380%	\$495,840.44	5.950	7.168%	\$352,342.44
6.975	8.385%	\$497,625.44	5.975	7.164%	\$352,005.44
7.050	8.390%	\$499,410.44	6.000	7.160%	\$351,668.44
7.125	8.395%	\$501,195.44	6.025	7.156%	\$351,331.44
7.200	8.400%	\$502,980.44	6.050	7.152%	\$350,994.44
7.275	8.405%	\$504,765.44	6.075	7.148%	\$350,657.44
7.350	8.410%	\$506,550.44	6.100	7.144%	\$350,320.44
7.425	8.415%	\$508,335.44	6.125	7.140%	\$349,983.44
7.500	8.420%	\$510,120.44	6.150	7.136%	\$349,646.44
7.575	8.425%	\$511,905.44	6.175	7.132%	\$349,309.44
7.650	8.430%	\$513,690.44	6.200	7.128%	\$348,972.44
7.725	8.435%	\$515,475.44	6.225	7.124%	\$348,635.44
7.800	8.440%	\$517,260.44	6.250	7.120%	\$348,298.44
7.875	8.445%	\$519,045.44	6.275	7.116%	\$347,961.44
7.950	8.450%	\$520,830.44	6.300	7.112%	\$347,624.44
8.025	8.455%	\$522,615.44	6.325	7.108%	\$347,287.44
8.100	8.460%	\$524,400.44	6.350	7.104%	\$346,950.44
8.175	8.465%	\$526,185.44	6.375	7.100%	\$346,613.44
8.250	8.470%	\$527,970.44	6.400	7.096%	\$346,276.44
8.325	8.475%	\$529,755.44	6.425	7.092%	\$345,939.44
8.400	8.480%	\$531,540.44	6.450	7.088%	\$345,602.44
8.475	8.485%	\$533,325.44	6.475	7.084%	\$345,265.44
8.550	8.490%	\$535,110.44	6.500	7.080%	\$344,928.44
8.625	8.495%	\$536,895.44	6.525	7.076%	\$344,591.44
8.700	8.500%	\$538,680.44	6.550	7.072%	\$344,254.44
8.775	8.505%	\$540,465.44	6.575	7.068%	\$343,917.44
8.850	8.510%	\$542,250.44	6.600	7.064%	\$343,580.44
8.925	8.515%	\$544,035.44	6.625	7.060%	\$343,243.44
9.000	8.520%	\$545,820.44	6.650	7.056%	\$342,906.44
9.075	8.525%	\$547,605.44	6.675	7.052%	\$342,569.44
9.150	8.530%	\$549,390.44	6.700	7.048%	\$342,232.44
9.225	8.535%	\$551,175.44	6.725	7.044%	\$341,895.44
9.300	8.540%	\$552,960.44	6.750	7.040%	\$341,558.44
9.375	8.545%	\$554,745.44	6.775	7.036%	\$341,221.44
9.450	8.550%	\$556,530.44	6.800	7.032%	\$340,884.44
9.525	8.555%	\$558,315.44	6.825	7.028%	\$340,547.44
9.600	8.560%	\$560,100.44	6.850	7.024%	\$340,210.44
9.675	8.565%	\$561,885.44	6.875	7.020%	\$339,873.44
9.750	8.570%	\$563,670.44	6.900	7.016%	\$339,536.44
9.825	8.575%	\$565,455.44	6.925	7.012%	\$339,199.44
9.900	8.580%	\$567,240.44	6.950	7.008%	\$338,862.44
9.975	8.585%	\$569,025.44	6.975	7.004%	\$338,525.44
10.050	8.590%	\$570,810.44	7.000	7.000%	\$338,188.44

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Page	Cost of Construction In Millions	Percent	Page
6.828	8.077%	\$356,008.72	6.625	7.095%	\$498,071.34
6.830	8.073%	\$358,891.83	6.680	7.082%	\$498,907.12
6.872	8.070%	\$358,670.45	6.678	7.059%	\$471,142.41
6.726	8.083%	\$360,270.51	6.700	7.059%	\$472,077.21
6.700	8.060%	\$344,007.48	6.740	7.061%	\$474,211.84
6.775	8.067%	\$345,880.23	6.775	7.049%	\$472,238.78
6.800	8.064%	\$347,642.50	6.800	7.041%	\$470,871.88
6.840	8.062%	\$349,454.51	6.825	7.038%	\$468,344.08
6.875	8.044%	\$353,410.64	6.820	7.025%	\$461,870.05
6.900	8.041%	\$354,408.87	6.822	7.028%	\$464,890.58
6.925	8.039%	\$355,398.68	6.900	7.028%	\$462,483.19
6.950	8.034%	\$355,398.47	6.925	7.022%	\$449,038.27
6.975	8.034%	\$355,398.47	6.950	7.018%	\$449,038.33
7.000	8.028%	\$351,944.17	7.000	7.012%	\$442,568.88
7.025	8.028%	\$353,702.38	7.025	7.009%	\$444,115.18
7.050	8.022%	\$353,540.08	7.050	7.005%	\$449,845.04
7.075	8.018%	\$351,247.38	7.075	7.002%	\$447,170.48
7.100	8.018%	\$352,060.87	7.100	6.998%	\$448,170.48
7.125	8.010%	\$352,888.88	7.125	6.998%	\$450,228.48
7.150	8.007%	\$354,472.22	7.150	6.998%	\$450,228.48
7.175	8.004%	\$353,257.25	7.175	6.991%	\$501,769.05
7.200	8.004%	\$353,257.25	7.200	6.991%	\$503,275.71
7.225	7.999%	\$353,178.82	7.225	6.991%	\$504,820.88
7.250	7.993%	\$353,393.01	7.250	6.979%	\$500,974.82
7.275	7.993%	\$351,616.18	7.275	6.981%	\$507,650.08
7.300	7.982%	\$358,393.81	7.300	6.979%	\$510,697.03
7.325	7.982%	\$358,393.81	7.325	6.973%	\$510,697.03
7.350	7.974%	\$358,393.81	7.350	6.968%	\$510,697.03
7.375	7.983%	\$358,741.38	7.375	6.968%	\$510,697.03
7.400	7.980%	\$360,628.16	7.400	6.968%	\$510,697.03
7.425	7.977%	\$362,394.91	7.425	6.961%	\$510,697.03
7.450	7.974%	\$361,038.46	7.450	6.949%	\$510,697.03
7.475	7.974%	\$361,038.46	7.475	6.944%	\$510,697.03
7.500	7.969%	\$361,038.46	7.500	6.944%	\$510,697.03
7.525	7.969%	\$361,038.46	7.525	6.940%	\$510,697.03
7.550	7.962%	\$360,446.72	7.550	6.937%	\$510,697.03
7.575	7.962%	\$360,446.72	7.575	6.937%	\$510,697.03
7.600	7.959%	\$360,446.72	7.600	6.937%	\$510,697.03
7.625	7.952%	\$360,446.72	7.625	6.937%	\$510,697.03
7.650	7.952%	\$360,446.72	7.650	6.937%	\$510,697.03
7.675	7.948%	\$360,446.72	7.675	6.937%	\$510,697.03
7.700	7.948%	\$360,446.72	7.700	6.937%	\$510,697.03
7.725	7.941%	\$361,038.46	7.725	6.937%	\$510,697.03
7.750	7.941%	\$361,038.46	7.750	6.937%	\$510,697.03
7.775	7.938%	\$361,038.46	7.775	6.939%	\$539,260.27

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MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
7.000	7.038%	\$518,978.80	7.500	6.620%	\$139,766.08		
7.425	7.033%	\$520,791.83	7.625	6.614%	\$141,281.39		
7.850	7.028%	\$522,605.48	7.750	6.608%	\$142,796.70		
7.975	7.026%	\$523,001.78	7.875	6.602%	\$144,311.18		
7.900	7.025%	\$523,201.48	7.900	6.601%	\$144,638.45		
7.925	7.023%	\$523,648.19	7.925	6.600%	\$144,965.72		
7.950	7.021%	\$524,094.90	7.950	6.599%	\$145,293.00		
7.975	7.019%	\$524,541.61	7.975	6.598%	\$145,620.27		
8.000	7.017%	\$524,988.32	8.000	6.597%	\$145,947.54		
8.025	7.015%	\$525,435.03	8.025	6.596%	\$146,274.81		
8.050	7.013%	\$525,881.74	8.050	6.595%	\$146,602.08		
8.075	7.011%	\$526,328.45	8.075	6.594%	\$146,929.35		
8.100	7.009%	\$526,775.16	8.100	6.593%	\$147,256.62		
8.125	7.007%	\$527,221.87	8.125	6.592%	\$147,583.89		
8.150	7.005%	\$527,668.58	8.150	6.591%	\$147,911.16		
8.175	7.003%	\$528,115.29	8.175	6.590%	\$148,238.43		
8.200	7.001%	\$528,562.00	8.200	6.589%	\$148,565.70		
8.225	7.000%	\$529,008.71	8.225	6.588%	\$148,892.97		
8.250	7.000%	\$529,455.42	8.250	6.587%	\$149,220.24		
8.275	7.000%	\$529,902.13	8.275	6.586%	\$149,547.51		
8.300	7.000%	\$530,348.84	8.300	6.585%	\$149,874.78		
8.325	7.000%	\$530,795.55	8.325	6.584%	\$150,202.05		
8.350	7.000%	\$531,242.26	8.350	6.583%	\$150,529.32		
8.375	7.000%	\$531,688.97	8.375	6.582%	\$150,856.59		
8.400	7.000%	\$532,135.68	8.400	6.581%	\$151,183.86		
8.425	7.000%	\$532,582.39	8.425	6.580%	\$151,511.13		
8.450	7.000%	\$533,029.10	8.450	6.579%	\$151,838.40		
8.475	7.000%	\$533,475.81	8.475	6.578%	\$152,165.67		
8.500	7.000%	\$533,922.52	8.500	6.577%	\$152,492.94		
8.525	7.000%	\$534,369.23	8.525	6.576%	\$152,820.21		
8.550	7.000%	\$534,815.94	8.550	6.575%	\$153,147.48		
8.575	7.000%	\$535,262.65	8.575	6.574%	\$153,474.75		
8.600	7.000%	\$535,709.36	8.600	6.573%	\$153,802.02		
8.625	7.000%	\$536,156.07	8.625	6.572%	\$154,129.29		
8.650	7.000%	\$536,602.78	8.650	6.571%	\$154,456.56		
8.675	7.000%	\$537,049.49	8.675	6.570%	\$154,783.83		
8.700	7.000%	\$537,496.20	8.700	6.569%	\$155,111.10		
8.725	7.000%	\$537,942.91	8.725	6.568%	\$155,438.37		
8.750	7.000%	\$538,389.62	8.750	6.567%	\$155,765.64		
8.775	7.000%	\$538,836.33	8.775	6.566%	\$156,092.91		
8.800	7.000%	\$539,283.04	8.800	6.565%	\$156,420.18		
8.825	7.000%	\$539,729.75	8.825	6.564%	\$156,747.45		
8.850	7.000%	\$540,176.46	8.850	6.563%	\$157,074.72		
8.875	7.000%	\$540,623.17	8.875	6.562%	\$157,402.00		
8.900	7.000%	\$541,069.88	8.900	6.561%	\$157,729.27		
8.925	7.000%	\$541,516.59	8.925	6.560%	\$158,056.54		
8.950	7.000%	\$541,963.30	8.950	6.559%	\$158,383.81		
8.975	7.000%	\$542,409.99	8.975	6.558%	\$158,711.08		
9.000	7.000%	\$542,856.70	9.000	6.557%	\$159,038.35		
9.025	7.000%	\$543,303.41	9.025	6.556%	\$159,365.62		
9.050	7.000%	\$543,750.12	9.050	6.555%	\$159,692.89		
9.075	7.000%	\$544,196.83	9.075	6.554%	\$160,020.16		
9.100	7.000%	\$544,643.54	9.100	6.553%	\$160,347.43		
9.125	7.000%	\$545,090.25	9.125	6.552%	\$160,674.70		
9.150	7.000%	\$545,536.96	9.150	6.551%	\$161,001.97		
9.175	7.000%	\$545,983.67	9.175	6.550%	\$161,329.24		
9.200	7.000%	\$546,430.38	9.200	6.549%	\$161,656.51		
9.225	7.000%	\$546,877.09	9.225	6.548%	\$161,983.78		
9.250	7.000%	\$547,323.80	9.250	6.547%	\$162,311.05		
9.275	7.000%	\$547,770.51	9.275	6.546%	\$162,638.32		
9.300	7.000%	\$548,217.22	9.300	6.545%	\$162,965.59		
9.325	7.000%	\$548,663.93	9.325	6.544%	\$163,292.86		
9.350	7.000%	\$549,110.64	9.350	6.543%	\$163,620.13		
9.375	7.000%	\$549,557.35	9.375	6.542%	\$163,947.40		
9.400	7.000%	\$550,004.06	9.400	6.541%	\$164,274.67		
9.425	7.000%	\$550,450.77	9.425	6.540%	\$164,601.94		
9.450	7.000%	\$550,897.48	9.450	6.539%	\$164,929.21		
9.475	7.000%	\$551,344.19	9.475	6.538%	\$165,256.48		
9.500	7.000%	\$551,790.90	9.500	6.537%	\$165,583.75		
9.525	7.000%	\$552,237.61	9.525	6.536%	\$165,911.02		
9.550	7.000%	\$552,684.32	9.550	6.535%	\$166,238.29		
9.575	7.000%	\$553,131.03	9.575	6.534%	\$166,565.56		
9.600	7.000%	\$553,577.74	9.600	6.533%	\$166,892.83		
9.625	7.000%	\$554,024.45	9.625	6.532%	\$167,220.10		
9.650	7.000%	\$554,471.16	9.650	6.531%	\$167,547.37		
9.675	7.000%	\$554,917.87	9.675	6.530%	\$167,874.64		
9.700	7.000%	\$555,364.58	9.700	6.529%	\$168,201.91		
9.725	7.000%	\$555,811.29	9.725	6.528%	\$168,529.18		
9.750	7.000%	\$556,258.00	9.750	6.527%	\$168,856.45		
9.775	7.000%	\$556,704.71	9.775	6.526%	\$169,183.72		
9.800	7.000%	\$557,151.42	9.800	6.525%	\$169,511.00		
9.825	7.000%	\$557,598.13	9.825	6.524%	\$169,838.27		
9.850	7.000%	\$558,044.84	9.850	6.523%	\$170,165.54		
9.875	7.000%	\$558,491.55	9.875	6.522%	\$170,492.81		
9.900	7.000%	\$558,938.26	9.900	6.521%	\$170,820.08		
9.925	7.000%	\$559,384.97	9.925	6.520%	\$171,147.35		
9.950	7.000%	\$559,831.68	9.950	6.519%	\$171,474.62		
9.975	7.000%	\$560,278.39	9.975	6.518%	\$171,801.89		
10.000	7.000%	\$560,725.10	10.000	6.517%	\$172,129.16		
10.025	7.000%	\$561,171.81	10.025	6.516%	\$172,456.43		
10.050	7.000%	\$561,618.52	10.050	6.515%	\$172,783.70		
10.075	7.000%	\$562,065.23	10.075	6.514%	\$173,111.00		
10.100	7.000%	\$562,511.94	10.100	6.513%	\$173,438.27		
10.125	7.000%	\$562,958.65	10.125	6.512%	\$173,765.54		
10.150	7.000%	\$563,405.36	10.150	6.511%	\$174,092.81		
10.175	7.000%	\$563,852.07	10.175	6.510%	\$174,420.08		
10.200	7.000%	\$564,298.78	10.200	6.509%	\$174,747.35		
10.225	7.000%	\$564,745.49	10.225	6.508%	\$175,074.62		
10.250	7.000%	\$565,192.20	10.250	6.507%	\$175,401.89		
10.275	7.000%	\$565,638.91	10.275	6.506%	\$175,729.16		
10.300	7.000%	\$566,085.62	10.300	6.505%	\$176,056.43		
10.325	7.000%	\$566,532.33	10.325	6.504%	\$176,383.70		
10.350	7.000%	\$566,979.04	10.350	6.503%	\$176,711.00		
10.375	7.000%	\$567,425.75	10.375	6.502%	\$177,038.27		
10.400	7.000%	\$567,872.46	10.400	6.501%	\$177,365.54		
10.425	7.000%	\$568,319.17	10.425	6.500%	\$177,692.81		
10.450	7.000%	\$568,765.88	10.450	6.499%	\$178,020.08		
10.475	7.000%	\$569,212.59	10.475	6.498%	\$178,347.35		
10.500	7.000%	\$569,659.30	10.500	6.497%	\$178,674.62		
10.525	7.000%	\$570,106.01	10.525	6.496%	\$179,001.89		
10.550	7.000%	\$570,552.72	10.550	6.495%	\$179,329.16		
10.575	7.000%	\$570,999.43	10.575	6.494%	\$179,656.43		
10.600	7.000%	\$571,446.14	10.600	6.493%	\$180,000.00		
10.625	7.000%	\$571,892.85	10.625	6.492%	\$180,343.57		
10.650	7.000%	\$572,339.56	10.650	6.491%	\$180,687.14		
10.675	7.000%	\$572,786.27	10.675	6.490%	\$181,030.71		
10.700	7.000%	\$573,232.98	10.700	6.489%	\$181,374.28		
10.725	7.000%	\$573,679.69	10.725	6.488%	\$181,717.85		
10.750	7.000%	\$574,126.40	10.750	6.487%	\$182,061.42		
10.775	7.000%	\$574,573.11	10.775	6.486%	\$182,405.00		
10.800	7.000%	\$575,019.82	10.800	6.485%	\$182,748.57		
10.825	7.000%	\$575,466.53	10.825	6.484%	\$183,092.14		
10.850	7.000%	\$575,913.24	10.850	6.483%	\$183,435.71		
10.875	7.000%	\$576,359.95	10.875	6.482%	\$183,779.28		
10.900	7.000%	\$576,806.66	10.900	6.481%	\$184,122.85		
10.925	7.000%	\$577,253.37	10.925	6.480%	\$184,466.42		
10.950	7.000%	\$577,699.98	10.950	6.479%	\$184,810.00		
10.975	7.000%	\$578,146.69	10.975	6.478%	\$185,153.57		
11.000	7.000%	\$578,593.40	11.000	6.477%	\$185,497.14		
11.025	7.000%	\$579,040.11	11.025	6.476%	\$185,840.71		
11.050	7.000%	\$579,486.82	11.050	6.475%	\$186,184.28		
11.075	7.000%	\$579,933.53	11.075	6.474%	\$186,527.85		
11.100	7.000%	\$580,380.24	11.100	6.473%	\$186,871.42		
11.125	7.000%	\$580,826.95	11.125	6.472%	\$187,215.00		
11.150	7.000%	\$581,273.66	11.150	6.471%	\$187,558.57		
11.175	7.000%	\$581,720.37	11.175	6.470%	\$187,902.14		
11.200	7.000%	\$582,167.08	11.200	6.469%	\$188,245.71		
11.225	7.000%	\$582,613.79	11.225	6.468%	\$188,589.28		
11.250	7.000%	\$583,060.50	11.250	6.467%	\$188,932.85		
11.275	7.000%	\$583,507.21	11.275	6.466%	\$189,276.42		
11.300	7.000%	\$583,953.92	11.300	6.465%	\$189,620.00		
11.325	7.000%	\$584,400.63	11.325	6.464%	\$189,963.57		
11.350	7.000%	\$584,847.34	11.350	6.463%	\$190,307.14		
11.375	7.000%	\$585,294.05	11.375	6.462%	\$190,650.71		
11.400	7.000%	\$585,740.76	11.400	6.461%	\$190,994.28		
11.425	7.000%	\$586,187.47	11				

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction in Millions	Percent	Fee	Cost of Construction in Millions	Percent	Fee	Cost of Construction in Millions	Percent
6.978	7.422%	\$702,018.04	6.978	6.933%	\$810,600.61	6.978	6.933%
6.000	7.620%	\$703,773.61	6.000	6.801%	\$912,680.52	6.000	6.801%
6.026	7.618%	\$702,532.73	6.026	6.792%	\$910,884.78	6.026	6.792%
6.075	7.615%	\$700,062.69	6.075	6.784%	\$910,088.27	6.075	6.784%
6.100	7.611%	\$710,010.32	6.100	6.780%	\$910,002.54	6.100	6.780%
6.126	7.607%	\$714,824.89	6.126	6.776%	\$910,000.00	6.126	6.776%
6.150	7.603%	\$719,484.44	6.150	6.772%	\$909,999.99	6.150	6.772%
6.200	7.600%	\$777,087.04	6.200	6.768%	\$909,999.99	6.200	6.768%
6.226	7.596%	\$770,933.98	6.226	6.764%	\$909,999.99	6.226	6.764%
6.250	7.592%	\$771,540.79	6.250	6.760%	\$909,999.99	6.250	6.760%
6.276	7.588%	\$771,005.91	6.276	6.756%	\$909,999.99	6.276	6.756%
6.300	7.584%	\$770,428.47	6.300	6.752%	\$909,999.99	6.300	6.752%
6.350	7.580%	\$728,970.11	6.350	6.748%	\$909,999.99	6.350	6.748%
6.376	7.576%	\$730,724.49	6.376	6.744%	\$909,999.99	6.376	6.744%
6.400	7.572%	\$731,078.59	6.400	6.740%	\$909,999.99	6.400	6.740%
6.450	7.568%	\$731,129.42	6.450	6.736%	\$909,999.99	6.450	6.736%
6.475	7.564%	\$731,129.42	6.475	6.732%	\$909,999.99	6.475	6.732%
6.500	7.560%	\$731,129.42	6.500	6.728%	\$909,999.99	6.500	6.728%
6.526	7.556%	\$731,129.42	6.526	6.724%	\$909,999.99	6.526	6.724%
6.550	7.552%	\$731,129.42	6.550	6.720%	\$909,999.99	6.550	6.720%
6.575	7.548%	\$731,129.42	6.575	6.716%	\$909,999.99	6.575	6.716%
6.600	7.544%	\$731,129.42	6.600	6.712%	\$909,999.99	6.600	6.712%
6.626	7.540%	\$731,129.42	6.626	6.708%	\$909,999.99	6.626	6.708%
6.650	7.536%	\$731,129.42	6.650	6.704%	\$909,999.99	6.650	6.704%
6.675	7.532%	\$731,129.42	6.675	6.700%	\$909,999.99	6.675	6.700%
6.700	7.528%	\$731,129.42	6.700	6.696%	\$909,999.99	6.700	6.696%
6.726	7.524%	\$731,129.42	6.726	6.692%	\$909,999.99	6.726	6.692%
6.750	7.520%	\$731,129.42	6.750	6.688%	\$909,999.99	6.750	6.688%
6.776	7.516%	\$731,129.42	6.776	6.684%	\$909,999.99	6.776	6.684%
6.800	7.512%	\$731,129.42	6.800	6.680%	\$909,999.99	6.800	6.680%
6.826	7.508%	\$731,129.42	6.826	6.676%	\$909,999.99	6.826	6.676%
6.850	7.504%	\$731,129.42	6.850	6.672%	\$909,999.99	6.850	6.672%
6.875	7.500%	\$731,129.42	6.875	6.668%	\$909,999.99	6.875	6.668%
6.900	7.496%	\$731,129.42	6.900	6.664%	\$909,999.99	6.900	6.664%
6.926	7.492%	\$731,129.42	6.926	6.660%	\$909,999.99	6.926	6.660%
6.950	7.488%	\$731,129.42	6.950	6.656%	\$909,999.99	6.950	6.656%
6.975	7.484%	\$731,129.42	6.975	6.652%	\$909,999.99	6.975	6.652%
7.000	7.480%	\$731,129.42	7.000	6.648%	\$909,999.99	7.000	6.648%
7.026	7.476%	\$731,129.42	7.026	6.644%	\$909,999.99	7.026	6.644%
7.050	7.472%	\$731,129.42	7.050	6.640%	\$909,999.99	7.050	6.640%
7.075	7.468%	\$731,129.42	7.075	6.636%	\$909,999.99	7.075	6.636%
7.100	7.464%	\$731,129.42	7.100	6.632%	\$909,999.99	7.100	6.632%
7.126	7.460%	\$731,129.42	7.126	6.628%	\$909,999.99	7.126	6.628%
7.150	7.456%	\$731,129.42	7.150	6.624%	\$909,999.99	7.150	6.624%
7.175	7.452%	\$731,129.42	7.175	6.620%	\$909,999.99	7.175	6.620%
7.200	7.448%	\$731,129.42	7.200	6.616%	\$909,999.99	7.200	6.616%
7.226	7.444%	\$731,129.42	7.226	6.612%	\$909,999.99	7.226	6.612%
7.250	7.440%	\$731,129.42	7.250	6.608%	\$909,999.99	7.250	6.608%
7.276	7.436%	\$731,129.42	7.276	6.604%	\$909,999.99	7.276	6.604%
7.300	7.432%	\$731,129.42	7.300	6.600%	\$909,999.99	7.300	6.600%
7.326	7.428%	\$731,129.42	7.326	6.596%	\$909,999.99	7.326	6.596%
7.350	7.424%	\$731,129.42	7.350	6.592%	\$909,999.99	7.350	6.592%
7.375	7.420%	\$731,129.42	7.375	6.588%	\$909,999.99	7.375	6.588%
7.400	7.416%	\$731,129.42	7.400	6.584%	\$909,999.99	7.400	6.584%
7.426	7.412%	\$731,129.42	7.426	6.580%	\$909,999.99	7.426	6.580%
7.450	7.408%	\$731,129.42	7.450	6.576%	\$909,999.99	7.450	6.576%
7.475	7.404%	\$731,129.42	7.475	6.572%	\$909,999.99	7.475	6.572%
7.500	7.400%	\$731,129.42	7.500	6.568%	\$909,999.99	7.500	6.568%
7.526	7.396%	\$731,129.42	7.526	6.564%	\$909,999.99	7.526	6.564%
7.550	7.392%	\$731,129.42	7.550	6.560%	\$909,999.99	7.550	6.560%
7.575	7.388%	\$731,129.42	7.575	6.556%	\$909,999.99	7.575	6.556%
7.600	7.384%	\$731,129.42	7.600	6.552%	\$909,999.99	7.600	6.552%
7.626	7.380%	\$731,129.42	7.626	6.548%	\$909,999.99	7.626	6.548%
7.650	7.376%	\$731,129.42	7.650	6.544%	\$909,999.99	7.650	6.544%
7.675	7.372%	\$731,129.42	7.675	6.540%	\$909,999.99	7.675	6.540%
7.700	7.368%	\$731,129.42	7.700	6.536%	\$909,999.99	7.700	6.536%
7.726	7.364%	\$731,129.42	7.726	6.532%	\$909,999.99	7.726	6.532%
7.750	7.360%	\$731,129.42	7.750	6.528%	\$909,999.99	7.750	6.528%
7.776	7.356%	\$731,129.42	7.776	6.524%	\$909,999.99	7.776	6.524%
7.800	7.352%	\$731,129.42	7.800	6.520%	\$909,999.99	7.800	6.520%
7.826	7.348%	\$731,129.42	7.826	6.516%	\$909,999.99	7.826	6.516%
7.850	7.344%	\$731,129.42	7.850	6.512%	\$909,999.99	7.850	6.512%
7.875	7.340%	\$731,129.42	7.875	6.508%	\$909,999.99	7.875	6.508%
7.900	7.336%	\$731,129.42	7.900	6.504%	\$909,999.99	7.900	6.504%
7.926	7.332%	\$731,129.42	7.926	6.500%	\$909,999.99	7.926	6.500%
7.950	7.328%	\$731,129.42	7.950	6.496%	\$909,999.99	7.950	6.496%
7.975	7.324%	\$731,129.42	7.975	6.492%	\$909,999.99	7.975	6.492%
8.000	7.320%	\$731,129.42	8.000	6.488%	\$909,999.99	8.000	6.488%
8.026	7.316%	\$731,129.42	8.026	6.484%	\$909,999.99	8.026	6.484%
8.050	7.312%	\$731,129.42	8.050	6.480%	\$909,999.99	8.050	6.480%
8.075	7.308%	\$731,129.42	8.075	6.476%	\$909,999.99	8.075	6.476%
8.100	7.304%	\$731,129.42	8.100	6.472%	\$909,999.99	8.100	6.472%
8.126	7.300%	\$731,129.42	8.126	6.468%	\$909,999.99	8.126	6.468%
8.150	7.296%	\$731,129.42	8.150	6.464%	\$909,999.99	8.150	6.464%
8.175	7.292%	\$731,129.42	8.175	6.460%	\$909,999.99	8.175	6.460%
8.200	7.288%	\$731,129.42	8.200	6.456%	\$909,999.99	8.200	6.456%
8.226	7.284%	\$731,129.42	8.226	6.452%	\$909,999.99	8.226	6.452%
8.250	7.280%	\$731,129.42	8.250	6.448%	\$909,999.99	8.250	6.448%
8.276	7.276%	\$731,129.42	8.276	6.444%	\$909,999.99	8.276	6.444%
8.300	7.272%	\$731,129.42	8.300	6.440%	\$909,999.99	8.300	6.440%
8.326	7.268%	\$731,129.42	8.326	6.436%	\$909,999.99	8.326	6.436%
8.350	7.264%	\$731,129.42	8.350	6.432%	\$909,999.99	8.350	6.432%
8.375	7.260%	\$731,129.42	8.375	6.428%	\$909,999.99	8.375	6.428%
8.400	7.256%	\$731,129.42	8.400	6.424%	\$909,999.99	8.400	6.424%
8.426	7.252%	\$731,129.42	8.426	6.420%	\$909,999.99	8.426	6.420%
8.450	7.248%	\$731,129.42	8.450	6.416%	\$909,999.99	8.450	6.416%
8.475	7.244%	\$731,129.42	8.475	6.412%	\$909,999.99	8.475	6.412%
8.500	7.240%	\$731,129.42	8.500	6.408%	\$909,999.99	8.500	6.408%
8.526	7.236%	\$731,129.42	8.526	6.404%	\$909,999.99	8.526	6.404%
8.550	7.232%	\$731,129.42	8.550	6.400%	\$909,999.99	8.550	6.400%
8.575	7.228%	\$731,129.42	8.575	6.396%	\$909,999.99	8.575	6.396%
8.600	7.224%	\$731,129.42	8.600	6.392%	\$909,999.99	8.600	6.392%
8.626	7.220%	\$731,129.42	8.626	6.388%	\$909,999.99	8.626	6.388%
8.650	7.216%	\$731,129.42	8.650	6.384%	\$909,999.99	8.650	6.384%
8.675	7.212%	\$731,129.42	8.675	6.380%	\$909,999.99	8.675	6.380%
8.700	7.208%	\$731,129.42	8.700	6.376%	\$909,999.99	8.700	6.376%
8.726	7.204%	\$731,129.42	8.726	6.372%	\$909,999.99	8.726	6.372%
8.750	7.200%	\$731,129.42	8.750	6.368%	\$909,999.99	8.750	6.368%
8.776	7.196%	\$731,129.42	8.776	6.364%	\$909,999.99	8.776	6.364%
8.800	7.192%	\$731,129.42	8.800	6.360%	\$909,999.99	8.800	6.360%
8.826	7.188%	\$731,129.42	8.826	6.356%	\$909,999.99	8.826	6.356%
8.850	7.184%	\$731,129.42	8.850	6.352%	\$909,999.99	8.850	6.352%
8.875	7.180%	\$731,129.42	8.875	6.348%	\$909,999.99	8.875	6.348%
8.900	7.176%	\$731,129.42	8.900	6.344%	\$909,999.99	8.900	6.344%
8.926	7.172%	\$731,129.42	8.926	6.340%	\$909,999.99	8.926	6.340%
8.950	7.168%	\$731,129.42	8.950	6.336%	\$909,999.99	8.950	6.336%
8.975	7.164%	\$731,129.42	8.975	6.332%	\$909,999.99	8.975	6.332%
9.000	7.160%	\$731,129.42	9.000	6.328%	\$909,999.99	9.000	6.328%



Jimmie Schindewolf, P.E.  
General Manager

December 14, 2006

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Ron Graham, *Asst. Secretary*


W. John Seifert, Jr., P.E.  
LBG-Guyton Associates  
11111 Katy Freeway, Suite 400  
Houston, Texas 77079

Re: Amended and Restated Agreement For Professional Engineering Services  
Dear Mr. Seifert:

Transmitted herewith please find one fully executed duplicate original of the Amended and Restated Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and LBG-Guyton Associates. This Agreement was approved by the Authority Board of Directors at the November 6, 2006, Board meeting. I am also sending one duplicate original to Tom Rolan (Authority Program Director), one to Robin Bobbitt (Authority General Counsel), and I am retaining two for the Authority contract file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

  
Jimmie Schindewolf, P.E.  
General Manager

JAS/lrs

Attachment

Cc: Robin S. Bobbitt, Johnson Radcliff Petrov & Bobbitt PLLC - w/attachment  
Tom Rolan, P.E., Turner Collier & Braden, Inc. - w/attachment  
Shawn Nandagiri, P.E., NHCRWA  
Cyndi Plunkett, NHCRWA - w/attachment



**AMENDED AND RESTATED AGREEMENT  
FOR PROFESSIONAL ENGINEERING SERVICES  
(LBG-Guyton Associates)**

THE STATE OF TEXAS    §  
                                  §  
COUNTY OF HARRIS    §

THIS AMENDED AND RESTATED AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Amended Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and LBG-Guyton Associates (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects;

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

The Authority and the Engineer have previously entered into an Agreement for Professional Engineering Services; however, due to changed circumstances and the need for clarification and revision, the Authority and the Engineer desire to enter into this Amended Agreement;

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION I**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected in the detailed Scope of Services attached as **Appendices A and A-1** and that are specifically identified in the Scope of Services that will accompany each Work Authorization issued by the General Manager.
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional

services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).

3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.
4. "Design Phase Agreed Estimate" shall mean the estimate of probable Construction Cost for a Construction Package developed at the completion of the approved Preliminary Engineering Phase, updated at the completion of the Design Phase and agreed to in writing by the General Manager and the Engineer.
5. "Preliminary Phase Agreed Estimate" shall mean the estimate of probable Construction Cost developed and agreed to in writing by the General Manager and the Engineer prior to commencing work on the Preliminary Engineering Phase of the Project. This agreed estimate applies only to the Preliminary Engineering Phase.
6. "Program Manager" shall mean the Authority's manager of its water supply program.
7. "Project" shall mean a design and/or construction project of the Authority authorized by the General Manager through the issuance of a Work Authorization.

## SECTION II

### CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Amended Agreement, the General Manager of the Authority or his designee (hereinafter the "General Manager") may deliver to the Engineer written authorization (hereinafter known as "Work Authorization") in accordance with this Section for the performance of certain professional services with regard to specified Authority projects, which services the Engineer shall then perform in accordance with this Amended Agreement. The General Manager may authorize the Engineer to provide all or any of the engineering and related services that are listed in **Appendices A and A-1**, attached hereto and made a part hereof.

The Authority shall have no obligation to pay for any services hereunder that have been rendered without the prior Work Authorization of the General Manager. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the Authority with progress reports at such times and in such manner as may be requested by the General Manager. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the General Manager as soon as possible.

SECTION III

TIME OF PERFORMANCE

Upon receipt of a Work Authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The Authority shall have no obligation to pay for a service performed after the required completion date for same, as set forth in its Work Authorization, except to the extent the date for required completion is extended and continuation of such service is approved by the General Manager.

SECTION IV

THE ENGINEER'S COMPENSATION

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blueprint drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof, costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Amended Agreement are described as follows:

Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in **Appendix C**.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.

For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.
3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.

The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### SECTION V

#### TIME OF PAYMENT

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Amended Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager", in a form suitable to the Authority, setting forth the services provided under this Amended Agreement which were completed during such time period and the compensation which is due. All changes based upon hourly rates of services, whether the changes are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person

performing the services and countersigned by his/her supervisor certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Amended Agreement have been performed. Within forty-five (45) days after the performance of all services provided for in this Amended Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Amended Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

#### **SECTION VI TERMINATION**

Either party may terminate this Amended Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Amended Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Amended Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Amended Agreement, less such payments on account of the charges as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Amended Agreement shall be delivered to the Authority when and if this Amended Agreement is terminated.

#### **SECTION VII NOTICE**

Any notice required to be given under the provisions of this Amended Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Amended Agreement, all notices shall be delivered to the following addresses:

To the Engineer: LBG-Guyton Associates  
11111 Katy Freeway, Suite 400  
Houston, Texas 77079

Attention: W. John Seifert, Jr., P.E., Principal

To the Authority: North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Attention: General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### SECTION VIII

#### SUCCESSORS AND ASSIGNS

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Amended Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Amended Agreement. Neither the Authority nor the Engineer shall assign, subcontract, or transfer its or his/her interest in this Amended Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

#### SECTION IX

#### PUBLIC CONTACT

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Amended Agreement or any requested service shall be referred to the General Manager.

#### SECTION X

#### COMPLIANCE AND STANDARDS

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the

Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### SECTION XI

#### LICENSE REQUIREMENTS

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Amended Agreement.

#### SECTION XII

#### INSURANCE AND INDEMNIFICATION

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Amended Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Amended Agreement and that of its subcontractors or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subcontractors (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.



SECTION XIII  
OWNERSHIP OF PLANS, COPYRIGHT, AND  
OTHER INTELLECTUAL PROPERTY

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Amended Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Amended Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Amended Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Amended Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Amended Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Amended Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement.

Copies of all complete or partially complete information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes therefor, and any material objects embodying any works of authorship, prepared pursuant to this Amended Agreement, shall also be delivered

by the Engineer to the General Manager when and if this Amended Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

**SECTION XIV**

**MODIFICATIONS**

This instrument contains the entire Amended Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

**SECTION XV**

**AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Amended Agreement and all questions as to the acceptable fulfillment of this Amended Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Amended Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Amended Agreement.

**SECTION XVI**

**SEVERABILITY**

Any provision or part of this Amended Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Amended Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**SECTION XVII**

**MERGER**


The Parties agree that this Amended Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Amended Agreement.

[The remainder of this page intentionally left blank.]


SECTION XVIII  
EXECUTION

The Authority executes this Amended Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Amended Agreement shall not become effective until executed by all parties hereto.

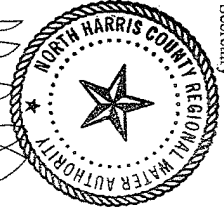
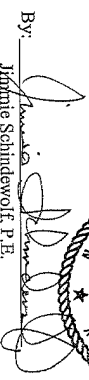
NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

By:   
Alan J. Rendl, President  
Date Signed: 12-14-06


ATTEST:

By:   
Lenox A. Sigler, Secretary


(AUTHORITY SEAL)

APPROVED:   
By:   
Jymmie Schindewolf, P.E.  
General Manager

LEG-GUYTON ASSOCIATES

By:   
Name: William Seifert  
Title: Principal  
Date Signed: 12/12/06

ATTEST:

By:   
Name: Lisa Schuchert  
Title: Administrative Assistant

APPENDIX A  
SCOPE OF SERVICES  
(LBG-Guyton Associates)

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see **Appendix A-1**) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnects, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.

APPENDIX A-1

SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES

(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

1. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system, preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternative water line alignments considering all relevant factors and prepare schematic layouts for each alternative route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review.
  - i. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.

2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues



- associated with such submittals within fourteen (14) calendar days of receipt of submittals from the Program Manager.
- c. Prepare revisions to the contract documents (*i.e.*, change orders) at no charge to the Authority when such change orders are required to make clarifications, correct discrepancies, errors or omissions to the contract documents.
  - f. When requested by the Program Manager, evaluate contractor changes and cost proposals and recommend action to the Program Manager.
  - g. Make monthly site visits to the Project site to observe the progress and quality of the executed work. Such site visits are to be coordinated with the Program Manager and a site visit report shall be submitted to the Program Manager after each such site visit, indicating observations related to the executed work.
  - h. Attend final Project walkthrough.
  - i. Prepare "record drawings" indicating changes to the contract drawings and showing significant changes made to the work during the construction of the Project. Such changes will be based upon marked-up "record drawings" furnished to the Engineer by the Program Manager and the construction contractor.

**APPENDIX B**  
**HOURLY BILLING RATES**  
**(LBG-Guyton Associates)**

Principals.....	\$160 to \$200/hr.
Senior Consultants .....	\$150/hr.
Senior Associates.....	\$130 to \$160/hr.
Associates .....	\$95 to \$150/hr.
Senior Hydrogeologists, Senior Geohydrologists, Senior Environmental Engineers	\$65 to 120/hr.
Hydrogeologists II, Geohydrologists II, Environmental Engineers II	\$60 to \$90/hr.
Hydrogeologists I, Geohydrologists I, Environmental Engineers I, Environmental Scientist I	\$50 to \$75/hr.
Senior Technicians .....	\$65/hr.
Technicians .....	\$55/hr.
CAD Operators/Draftspersons .....	\$70/hr.
Clerical.....	\$50/hr.

- Notes:**
- (1) Above-noted rates are 2003 values. Subsequent year rates and additional classification rates must be approved in writing by the General Manager.
  - (2) Subconsultant costs and other miscellaneous expenses as approved by the General Manager will be paid at cost plus 10%.

APPENDIX C  
CITY OF HOUSTON CURVES FOR MEDIAN COMPENSATION  
(LBG-Guyton Associates)



**CITY OF HOUSTON**  
Public Works and Engineering  
Department

La0 P. Brown  
Mayor  
Jon G. Vesten Beek, P.E.  
Public Works & Engineering  
Department  
Houston, Texas 77251-1482  
T. 713.837.2007  
F. 713.837.2006  
M. 713.837.2008  
WWW.CITYOFHOUSTON.TX

July 18, 2002

Chadleria M. Lindsey, Executive Director  
Houston - CEO  
2020 North Loop West, Suite 240  
Houston, Texas 77018

Dear Ms. Lindsey:  
PW&E has enclosed the revised Curves of Median Compensation attached hereto. These curves and/or the associated tables will be used for determining the engineering fees as appropriate in this Department until further notice.  
Sincerely,

Eric D. Deegan, P.E.  
Director  
Department of Public Works and Engineering

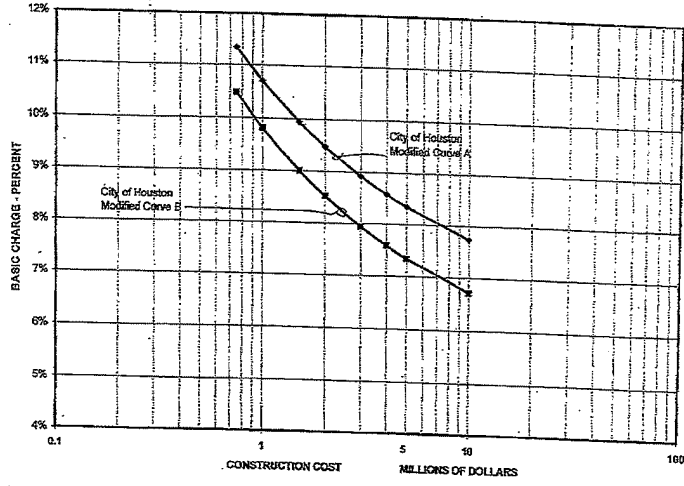
CC: Edward Mandelaki, P.E.  
Jeff Taylor  
Eric Deegan  
Rick Vaezi - Analysis Department  
Marty Anderson - Training Services Department

Conrad Krenke, Mayor; Tito Cruz, M. G. Giddens, Mike Duggan, ASA General, Mike Williams, ADA, A.S.M., Don Keller, DARRYL WILSON, CRO, A.M.P.S.  
James H. White, Director, Staff, Deputy Secretary, City of Houston; Houston City Council; Houston

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
Curves of Median Compensation  
Curves A and B

*Shawn Neudig*  
Shawn Neudig, P.E.  
Deputy Director

*Jon C. Vanden Bosch*  
Jon C. Vanden Bosch, P.E.  
Director



MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
0.760	11.347%	\$85,030.31	0.730	10.480%	\$79,888.84
0.775	11.270%	\$87,230.27	0.775	10.407%	\$80,665.40
0.800	11.189%	\$89,688.35	0.800	10.328%	\$82,832.08
0.825	11.109%	\$91,799.97	0.825	10.254%	\$84,608.08
0.850	11.030%	\$93,601.24	0.850	10.183%	\$86,058.88
0.875	10.952%	\$95,141.94	0.875	10.115%	\$87,200.32
0.900	10.875%	\$96,388.99	0.900	10.050%	\$88,084.32
0.925	10.801%	\$97,306.63	0.925	9.987%	\$88,782.74
0.950	10.729%	\$97,943.90	0.950	9.927%	\$89,343.28
0.975	10.659%	\$98,359.06	0.975	9.868%	\$89,820.27
1.000	10.590%	\$98,597.33	1.000	9.810%	\$90,230.00
1.025	10.510%	\$98,607.48	1.025	9.753%	\$90,583.37
1.050	10.433%	\$98,452.17	1.050	9.707%	\$90,891.01
1.075	10.357%	\$98,185.21	1.075	9.662%	\$91,157.05
1.100	10.282%	\$97,859.41	1.100	9.622%	\$91,397.88
1.125	10.208%	\$97,494.05	1.125	9.582%	\$91,614.30
1.150	10.135%	\$97,028.25	1.150	9.544%	\$91,807.45
1.175	10.063%	\$96,518.23	1.175	9.507%	\$91,979.15
1.200	10.000%	\$96,000.00	1.200	9.474%	\$92,132.48
1.225	9.937%	\$95,488.73	1.225	9.441%	\$92,267.88
1.250	9.875%	\$94,988.22	1.250	9.410%	\$92,395.15
1.275	9.812%	\$94,493.26	1.275	9.380%	\$92,515.75
1.300	9.750%	\$94,000.00	1.300	9.351%	\$92,629.15
1.325	9.687%	\$93,512.42	1.325	9.324%	\$92,735.74
1.350	9.625%	\$93,030.08	1.350	9.297%	\$92,835.22
1.375	9.562%	\$92,553.98	1.375	9.274%	\$92,928.22
1.400	9.500%	\$92,080.00	1.400	9.252%	\$93,014.32
1.425	9.437%	\$91,612.48	1.425	9.231%	\$93,094.02
1.450	9.375%	\$91,150.00	1.450	9.211%	\$93,167.82
1.475	9.312%	\$90,692.77	1.475	9.191%	\$93,235.22
1.500	9.250%	\$90,240.00	1.500	9.172%	\$93,296.82
1.525	9.187%	\$89,792.48	1.525	9.154%	\$93,352.22
1.550	9.125%	\$89,350.08	1.550	9.137%	\$93,402.02
1.575	9.062%	\$88,912.98	1.575	9.121%	\$93,445.82
1.600	9.000%	\$88,480.00	1.600	9.105%	\$93,483.42
1.625	8.937%	\$88,052.98	1.625	9.090%	\$93,515.42
1.650	8.875%	\$87,630.08	1.650	9.075%	\$93,541.42
1.675	8.812%	\$87,212.48	1.675	9.061%	\$93,561.42
1.700	8.750%	\$86,800.00	1.700	9.047%	\$93,575.42
1.725	8.687%	\$86,392.98	1.725	9.034%	\$93,583.42
1.750	8.625%	\$85,990.08	1.750	9.021%	\$93,586.42
1.775	8.562%	\$85,592.98	1.775	9.009%	\$93,584.42
1.800	8.500%	\$85,200.00	1.800	8.997%	\$93,577.42
1.825	8.437%	\$84,812.48	1.825	8.986%	\$93,565.42
1.850	8.375%	\$84,430.08	1.850	8.975%	\$93,548.42
1.875	8.312%	\$84,052.98	1.875	8.965%	\$93,526.42
1.900	8.250%	\$83,680.00	1.900	8.955%	\$93,499.42

0/262002

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
1,826	0.541%	\$103,666.17	1,025	0.893%	\$168,210.08
1,902	0.621%	\$106,695.33	1,060	0.892%	\$166,991.44
1,978	0.601%	\$109,724.49	1,095	0.872%	\$165,772.07
2,000	0.481%	\$111,860.28	2,000	0.622%	\$170,440.01
2,026	0.401%	\$113,996.07	2,026	0.502%	\$173,107.95
2,050	0.440%	\$116,131.86	2,050	0.483%	\$175,775.89
2,076	0.427%	\$118,267.65	2,076	0.464%	\$178,443.83
2,100	0.410%	\$120,403.44	2,100	0.445%	\$181,111.77
2,126	0.399%	\$122,539.23	2,126	0.426%	\$183,779.71
2,150	0.376%	\$124,675.02	2,150	0.407%	\$186,447.65
2,176	0.369%	\$126,810.81	2,176	0.388%	\$189,115.59
2,200	0.342%	\$128,946.60	2,200	0.379%	\$191,783.53
2,226	0.329%	\$131,082.39	2,226	0.360%	\$194,451.47
2,250	0.322%	\$133,218.18	2,250	0.341%	\$197,119.41
2,276	0.309%	\$135,353.97	2,276	0.322%	\$199,787.35
2,300	0.279%	\$137,489.76	2,300	0.303%	\$202,455.29
2,326	0.293%	\$139,625.55	2,326	0.284%	\$205,123.23
2,350	0.248%	\$141,761.34	2,350	0.277%	\$207,791.17
2,376	0.235%	\$143,897.13	2,376	0.258%	\$210,459.11
2,400	0.204%	\$146,032.92	2,400	0.241%	\$213,127.05
2,426	0.190%	\$148,168.71	2,426	0.222%	\$215,794.99
2,450	0.180%	\$150,304.50	2,450	0.203%	\$218,462.93
2,476	0.170%	\$152,440.29	2,476	0.184%	\$221,130.87
2,500	0.162%	\$154,576.08	2,500	0.165%	\$223,798.81
2,526	0.148%	\$156,711.87	2,526	0.146%	\$226,466.75
2,550	0.139%	\$158,847.66	2,550	0.127%	\$229,134.69
2,576	0.122%	\$160,983.45	2,576	0.108%	\$231,802.63
2,600	0.115%	\$163,119.24	2,600	0.100%	\$234,470.57
2,626	0.105%	\$165,255.03	2,626	0.091%	\$237,138.51
2,650	0.100%	\$167,390.82	2,650	0.082%	\$239,806.45
2,676	0.100%	\$169,526.61	2,676	0.073%	\$242,474.39
2,700	0.071%	\$171,662.40	2,700	0.064%	\$245,142.33
2,726	0.069%	\$173,798.19	2,726	0.055%	\$247,810.27
2,750	0.023%	\$175,933.98	2,750	0.046%	\$250,478.21
2,776	0.011%	\$178,069.77	2,776	0.037%	\$253,146.15
2,800	0.011%	\$180,205.56	2,800	0.028%	\$255,814.09
2,826	0.008%	\$182,341.35	2,826	0.019%	\$258,481.99
2,850	0.008%	\$184,477.14	2,850	0.010%	\$261,149.89
2,876	0.008%	\$186,612.93	2,876	0.001%	\$263,817.79
2,900	0.004%	\$188,748.72	2,900	0.001%	\$266,485.69
2,926	0.004%	\$190,884.51	2,926	0.001%	\$269,153.59
2,950	0.004%	\$193,020.30	2,950	0.001%	\$271,821.49
2,976	0.004%	\$195,156.09	2,976	0.001%	\$274,489.39
3,000	0.002%	\$197,291.88	3,000	0.001%	\$277,157.29
3,026	0.002%	\$199,427.67	3,026	0.001%	\$279,825.19
3,050	0.002%	\$201,563.46	3,050	0.001%	\$282,493.09
3,076	0.001%	\$203,699.25	3,076	0.001%	\$285,160.99

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02/26/2002

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Contribution in Millions	Percent	Fair	Cost of Contribution in Millions	Percent	Fair
3.100	8.881%	\$276,333.41	3.100	7.895%	\$244,798.27
3.128	8.874%	\$277,232.18	3.128	7.895%	\$246,438.23
3.160	8.862%	\$279,199.55	3.160	7.870%	\$248,088.88
3.176	8.858%	\$280,104.64	3.176	7.869%	\$248,798.73
3.176	8.858%	\$280,104.64	3.200	7.869%	\$251,583.40
3.228	8.833%	\$284,883.41	3.200	7.838%	\$254,272.00
3.280	8.803%	\$289,768.38	3.200	7.829%	\$254,981.60
3.276	8.814%	\$289,698.00	3.276	7.829%	\$256,316.50
3.300	8.809%	\$290,650.31	3.300	7.817%	\$257,064.95
3.328	8.802%	\$291,624.32	3.328	7.807%	\$257,838.83
3.350	8.798%	\$292,619.32	3.376	7.780%	\$258,632.61
3.376	8.798%	\$293,634.76	3.400	7.780%	\$259,446.76
3.400	8.793%	\$294,669.77	3.428	7.771%	\$259,449.94
3.428	8.793%	\$295,724.50	3.460	7.762%	\$259,477.28
3.450	8.793%	\$296,798.80	3.480	7.754%	\$259,484.80
3.500	8.720%	\$300,704.38	3.500	7.744%	\$271,150.88
3.528	8.720%	\$301,788.60	3.528	7.735%	\$272,870.88
3.550	8.716%	\$302,882.30	3.550	7.727%	\$274,629.97
3.600	8.710%	\$311,688.30	3.600	7.718%	\$276,427.28
3.600	8.710%	\$311,688.30	3.628	7.711%	\$278,262.41
3.628	8.693%	\$316,133.45	3.628	7.701%	\$279,138.03
3.650	8.693%	\$317,016.82	3.650	7.693%	\$280,063.18
3.650	8.693%	\$317,016.82	3.676	7.685%	\$281,038.07
3.676	8.677%	\$318,927.97	3.676	7.677%	\$282,062.18
3.700	8.677%	\$319,877.51	3.700	7.669%	\$283,136.47
3.728	8.664%	\$324,654.20	3.728	7.661%	\$284,260.81
3.750	8.664%	\$325,611.07	3.750	7.654%	\$285,435.19
3.800	8.647%	\$329,411.67	3.800	7.646%	\$286,659.53
3.800	8.647%	\$329,411.67	3.828	7.638%	\$287,933.84
3.828	8.632%	\$330,298.97	3.828	7.630%	\$289,258.11
3.850	8.632%	\$331,191.51	3.850	7.622%	\$290,632.36
3.876	8.617%	\$333,097.95	3.876	7.615%	\$292,056.59
3.900	8.617%	\$333,997.95	3.900	7.607%	\$293,530.80
3.928	8.603%	\$335,770.57	3.928	7.600%	\$295,055.00
3.928	8.603%	\$335,770.57	3.950	7.592%	\$296,629.18
3.950	8.593%	\$337,604.17	3.950	7.584%	\$298,253.34
3.976	8.593%	\$338,500.15	3.976	7.576%	\$299,927.48
4.000	8.581%	\$341,258.62	4.000	7.568%	\$301,651.60
4.028	8.581%	\$342,122.62	4.028	7.560%	\$303,425.73
4.050	8.568%	\$345,888.15	4.050	7.551%	\$305,250.84
4.076	8.568%	\$346,782.15	4.076	7.543%	\$307,125.92
4.100	8.551%	\$350,582.51	4.100	7.535%	\$309,051.00
4.128	8.551%	\$351,526.52	4.128	7.527%	\$311,026.08
4.128	8.547%	\$352,519.25	4.150	7.519%	\$313,051.17
4.150	8.544%	\$354,641.05	4.178	7.511%	\$315,126.25
4.178	8.544%	\$356,801.91	4.200	7.503%	\$317,251.33
4.200	8.529%	\$359,101.35	4.228	7.495%	\$319,426.41
4.228	8.529%	\$361,441.29	4.250	7.487%	\$321,651.49
4.250	8.515%	\$363,913.89	4.250	7.479%	\$323,926.57



6/26/2002

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
4.275	8.608%	\$393,735.18	4.275	7.610%	\$321,063.75
4.325	8.504%	\$399,692.48	4.300	7.604%	\$322,681.61
4.350	8.460%	\$401,822.48	4.325	7.601%	\$324,289.37
4.375	8.416%	\$403,952.48	4.350	7.598%	\$325,897.13
4.400	8.372%	\$406,082.48	4.375	7.595%	\$327,504.89
4.425	8.328%	\$408,212.48	4.400	7.592%	\$329,112.65
4.450	8.284%	\$410,342.48	4.425	7.589%	\$330,720.41
4.475	8.240%	\$412,472.48	4.450	7.586%	\$332,328.17
4.500	8.196%	\$414,602.48	4.475	7.583%	\$333,935.93
4.525	8.152%	\$416,732.48	4.500	7.580%	\$335,543.69
4.550	8.108%	\$418,862.48	4.525	7.577%	\$337,151.45
4.575	8.064%	\$420,992.48	4.550	7.574%	\$338,759.21
4.600	8.020%	\$423,122.48	4.575	7.571%	\$340,366.97
4.625	7.976%	\$425,252.48	4.600	7.568%	\$341,974.73
4.650	7.932%	\$427,382.48	4.625	7.565%	\$343,582.49
4.675	7.888%	\$429,512.48	4.650	7.562%	\$345,190.25
4.700	7.844%	\$431,642.48	4.675	7.559%	\$346,797.99
4.725	7.800%	\$433,772.48	4.700	7.556%	\$348,405.75
4.750	7.756%	\$435,902.48	4.725	7.553%	\$350,013.51
4.775	7.712%	\$438,032.48	4.750	7.550%	\$351,621.27
4.800	7.668%	\$440,162.48	4.775	7.547%	\$353,229.03
4.825	7.624%	\$442,292.48	4.800	7.544%	\$354,836.79
4.850	7.580%	\$444,422.48	4.825	7.541%	\$356,444.55
4.875	7.536%	\$446,552.48	4.850	7.538%	\$358,052.31
4.900	7.492%	\$448,682.48	4.875	7.535%	\$359,660.07
4.925	7.448%	\$450,812.48	4.900	7.532%	\$361,267.83
4.950	7.404%	\$452,942.48	4.925	7.529%	\$362,875.59
4.975	7.360%	\$455,072.48	4.950	7.526%	\$364,483.35
5.000	7.316%	\$457,202.48	4.975	7.523%	\$366,091.11
5.025	7.272%	\$459,332.48	5.000	7.520%	\$367,698.87
5.050	7.228%	\$461,462.48	5.025	7.517%	\$369,306.63
5.075	7.184%	\$463,592.48	5.050	7.514%	\$370,914.39
5.100	7.140%	\$465,722.48	5.075	7.511%	\$372,522.15
5.125	7.096%	\$467,852.48	5.100	7.508%	\$374,129.91
5.150	7.052%	\$469,982.48	5.125	7.505%	\$375,737.67
5.175	7.008%	\$472,112.48	5.150	7.502%	\$377,345.43
5.200	6.964%	\$474,242.48	5.175	7.499%	\$378,953.19
5.225	6.920%	\$476,372.48	5.200	7.496%	\$380,560.95
5.250	6.876%	\$478,502.48	5.225	7.493%	\$382,168.71
5.275	6.832%	\$480,632.48	5.250	7.490%	\$383,776.47
5.300	6.788%	\$482,762.48	5.275	7.487%	\$385,384.23
5.325	6.744%	\$484,892.48	5.300	7.484%	\$386,991.99
5.350	6.700%	\$487,022.48	5.325	7.481%	\$388,599.75
5.375	6.656%	\$489,152.48	5.350	7.478%	\$390,207.51
5.400	6.612%	\$491,282.48	5.375	7.475%	\$391,815.27
5.425	6.568%	\$493,412.48	5.400	7.472%	\$393,423.03
			5.425	7.469%	\$395,030.79

02/26/2002

MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
6.400	8.260%	\$460,133.22	6.460	7.263%	\$398,298.49
6.475	8.265%	\$461,644.22	6.475	7.248%	\$398,680.61
6.600	8.260%	\$463,794.00	6.600	7.240%	\$399,414.88
6.625	8.265%	\$465,094.34	6.625	7.230%	\$399,972.63
6.650	8.270%	\$466,444.00	6.650	7.220%	\$400,582.74
6.675	8.275%	\$467,842.00	6.675	7.209%	\$401,246.42
6.800	8.235%	\$481,038.88	6.800	7.220%	\$404,661.08
6.825	8.230%	\$482,597.18	6.825	7.221%	\$408,203.32
6.850	8.225%	\$484,218.00	6.850	7.217%	\$407,768.34
6.875	8.220%	\$485,900.00	6.875	7.213%	\$408,362.99
6.900	8.215%	\$487,644.00	6.900	7.208%	\$408,988.49
6.925	8.210%	\$489,450.00	6.925	7.204%	\$412,636.15
6.950	8.205%	\$491,318.00	6.950	7.199%	\$413,981.35
6.975	8.200%	\$493,248.00	6.975	7.195%	\$415,646.86
7.000	8.195%	\$495,239.00	7.000	7.191%	\$417,628.06
7.025	8.190%	\$497,291.00	7.025	7.187%	\$419,930.49
7.050	8.185%	\$499,405.00	7.050	7.183%	\$422,561.72
7.075	8.180%	\$501,581.00	7.075	7.179%	\$425,530.13
7.100	8.175%	\$503,819.00	7.100	7.175%	\$428,844.72
7.125	8.170%	\$506,119.00	7.125	7.171%	\$432,505.19
7.150	8.165%	\$508,481.00	7.150	7.167%	\$436,515.11
7.175	8.160%	\$510,905.00	7.175	7.163%	\$440,879.71
7.200	8.155%	\$513,391.00	7.200	7.159%	\$445,603.82
7.225	8.150%	\$515,939.00	7.225	7.155%	\$450,692.19
7.250	8.145%	\$518,550.00	7.250	7.151%	\$456,150.19
7.275	8.140%	\$521,224.00	7.275	7.147%	\$461,983.48
7.300	8.135%	\$523,961.00	7.300	7.143%	\$468,197.72
7.325	8.130%	\$526,761.00	7.325	7.139%	\$474,797.51
7.350	8.125%	\$529,624.00	7.350	7.135%	\$481,788.49
7.375	8.120%	\$532,550.00	7.375	7.131%	\$489,177.19
7.400	8.115%	\$535,539.00	7.400	7.127%	\$496,970.00
7.425	8.110%	\$538,591.00	7.425	7.123%	\$505,174.49
7.450	8.105%	\$541,706.00	7.450	7.119%	\$513,797.29
7.475	8.100%	\$544,884.00	7.475	7.115%	\$522,845.11
7.500	8.095%	\$548,125.00	7.500	7.111%	\$532,324.49
7.525	8.090%	\$551,429.00	7.525	7.107%	\$542,250.86
7.550	8.085%	\$554,796.00	7.550	7.103%	\$552,630.86
7.575	8.080%	\$558,226.00	7.575	7.100%	\$563,470.00
7.600	8.075%	\$561,719.00	7.600	7.096%	\$574,775.00
7.625	8.070%	\$565,275.00	7.625	7.092%	\$586,552.00
7.650	8.065%	\$568,894.00	7.650	7.088%	\$598,808.00
7.675	8.060%	\$572,575.00	7.675	7.084%	\$611,548.00
7.700	8.055%	\$576,318.00	7.700	7.080%	\$624,778.00
7.725	8.050%	\$580,123.00	7.725	7.076%	\$638,504.00
7.750	8.045%	\$584,000.00	7.750	7.072%	\$652,732.00
7.775	8.040%	\$587,939.00	7.775	7.068%	\$667,468.00
7.800	8.035%	\$591,940.00	7.800	7.064%	\$682,718.00
7.825	8.030%	\$596,003.00	7.825	7.060%	\$698,488.00
7.850	8.025%	\$600,128.00	7.850	7.056%	\$714,784.00
7.875	8.020%	\$604,315.00	7.875	7.052%	\$731,612.00
7.900	8.015%	\$608,564.00	7.900	7.048%	\$748,980.00
7.925	8.010%	\$612,875.00	7.925	7.044%	\$766,994.00
7.950	8.005%	\$617,248.00	7.950	7.040%	\$785,560.00
7.975	8.000%	\$621,683.00	7.975	7.036%	\$804,694.00
8.000	8.000%	\$626,180.00	8.000	7.032%	\$824,402.00
8.025	8.163%	\$491,833.57	8.025	7.165%	\$435,708.07
8.050	8.160%	\$493,833.57	8.050	7.161%	\$437,248.89
8.075	8.155%	\$495,893.10	8.075	7.157%	\$439,097.78
8.100	8.150%	\$498,013.10	8.100	7.153%	\$441,261.26
8.125	8.145%	\$499,297.84	8.125	7.149%	\$443,648.00
8.150	8.140%	\$500,647.04	8.150	7.145%	\$446,264.00
8.175	8.135%	\$502,061.52	8.175	7.141%	\$449,114.00
8.200	8.130%	\$503,540.88	8.200	7.137%	\$452,204.00
8.225	8.125%	\$505,085.44	8.225	7.133%	\$455,540.00
8.250	8.120%	\$506,695.68	8.250	7.129%	\$459,228.00
8.275	8.115%	\$508,371.12	8.275	7.125%	\$463,274.00
8.300	8.110%	\$510,112.32	8.300	7.121%	\$467,684.00
8.325	8.105%	\$511,919.84	8.325	7.117%	\$472,464.00
8.350	8.100%	\$513,793.28	8.350	7.113%	\$477,620.00
8.375	8.112%	\$515,938.77	8.375	7.109%	\$483,160.00
8.400	8.110%	\$517,108.72	8.400	7.105%	\$489,092.00
8.425	8.115%	\$518,508.17	8.425	7.101%	\$495,424.00
8.450	8.110%	\$519,938.40	8.450	7.097%	\$502,164.00
8.475	8.107%	\$521,598.87	8.475	7.093%	\$509,318.00
8.500	8.094%	\$523,399.16	8.500	7.079%	\$516,892.00
8.525	8.090%	\$525,339.46	8.525	7.075%	\$524,902.00
8.550	8.087%	\$527,420.00	8.550	7.071%	\$533,354.00
8.575	8.084%	\$529,650.88	8.575	7.067%	\$542,264.00
8.600	8.081%	\$532,032.00	8.600	7.063%	\$551,638.00
8.625	8.078%	\$534,564.00	8.625	7.059%	\$561,484.00
8.650	8.075%	\$537,247.00	8.650	7.055%	\$571,808.00
8.675	8.072%	\$540,081.00	8.675	7.051%	\$582,628.00
8.700	8.069%	\$543,066.00	8.700	7.047%	\$593,960.00
8.725	8.066%	\$546,202.00	8.725	7.043%	\$605,812.00
8.750	8.063%	\$549,489.00	8.750	7.039%	\$618,192.00
8.775	8.060%	\$552,927.00	8.775	7.035%	\$631,116.00
8.800	8.057%	\$556,516.00	8.800	7.031%	\$644,590.00
8.825	8.054%	\$560,256.00	8.825	7.027%	\$658,620.00
8.850	8.051%	\$564,147.00	8.850	7.023%	\$673,220.00
8.875	8.048%	\$568,189.00	8.875	7.019%	\$688,396.00
8.900	8.045%	\$572,382.00	8.900	7.015%	\$704,154.00
8.925	8.042%	\$576,726.00	8.925	7.011%	\$720,500.00
8.950	8.039%	\$581,221.00	8.950	7.007%	\$737,440.00
8.975	8.036%	\$585,867.00	8.975	7.003%	\$754,980.00
9.000	8.033%	\$590,664.00	9.000	7.000%	\$773,130.00
9.025	8.030%	\$595,611.00	9.025	7.000%	\$791,896.00
9.050	8.027%	\$600,708.00	9.050	7.000%	\$811,284.00
9.075	8.024%	\$605,955.00	9.075	7.000%	\$831,300.00
9.100	8.021%	\$611,352.00	9.100	7.000%	\$851,950.00
9.125	8.018%	\$616,899.00	9.125	7.000%	\$873,240.00
9.150	8.015%	\$622,596.00	9.150	7.000%	\$895,176.00
9.175	8.012%	\$628,443.00	9.175	7.000%	\$917,764.00
9.200	8.009%	\$634,440.00	9.200	7.000%	\$941,010.00
9.225	8.006%	\$640,587.00	9.225	7.000%	\$964,930.00
9.250	8.003%	\$646,884.00	9.250	7.000%	\$989,540.00
9.275	8.000%	\$653,331.00	9.275	7.000%	\$1,014,850.00
9.300	8.000%	\$660,000.00	9.300	7.000%	\$1,040,870.00
9.325	8.000%	\$666,879.00	9.325	7.000%	\$1,067,610.00
9.350	8.000%	\$673,958.00	9.350	7.000%	\$1,095,080.00
9.375	8.000%	\$681,227.00	9.375	7.000%	\$1,123,290.00
9.400	8.000%	\$688,686.00	9.400	7.000%	\$1,152,240.00
9.425	8.000%	\$696,335.00	9.425	7.000%	\$1,181,940.00
9.450	8.000%	\$704,174.00	9.450	7.000%	\$1,212,390.00
9.475	8.000%	\$712,203.00	9.475	7.000%	\$1,243,590.00
9.500	8.000%	\$720,422.00	9.500	7.000%	\$1,275,540.00
9.525	8.000%	\$728,831.00	9.525	7.000%	\$1,308,250.00
9.550	8.000%	\$737,430.00	9.550	7.000%	\$1,341,720.00
9.575	8.000%	\$746,219.00	9.575	7.000%	\$1,375,960.00
9.600	8.000%	\$755,198.00	9.600	7.000%	\$1,411,980.00
9.625	8.000%	\$764,367.00	9.625	7.000%	\$1,448,790.00
9.650	8.000%	\$773,726.00	9.650	7.000%	\$1,486,400.00
9.675	8.000%	\$783,275.00	9.675	7.000%	\$1,524,820.00
9.700	8.000%	\$793,014.00	9.700	7.000%	\$1,564,060.00
9.725	8.000%	\$802,943.00	9.725	7.000%	\$1,604,120.00
9.750	8.000%	\$813,062.00	9.750	7.000%	\$1,645,000.00
9.775	8.000%	\$823,371.00	9.775	7.000%	\$1,686,710.00
9.800	8.000%	\$833,870.00	9.800	7.000%	\$1,729,260.00
9.825	8.000%	\$844,559.00	9.825	7.000%	\$1,772,660.00
9.850	8.000%	\$855,438.00	9.850	7.000%	\$1,816,910.00
9.875	8.000%	\$866,507.00	9.875	7.000%	\$1,862,020.00
9.900	8.000%	\$877,766.00	9.900	7.000%	\$1,907,990.00
9.925	8.000%	\$889,215.00	9.925	7.000%	\$1,954,830.00
9.950	8.000%	\$900,854.00	9.950	7.000%	\$2,002,540.00
9.975	8.000%	\$912,683.00	9.975	7.000%	\$2,051,120.00
10.000	8.000%	\$924,702.00	10.000	7.000%	\$2,100,580.00

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MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Construction in Millions	Percent	Fee	Cost of Construction in Millions	Percent	Fee
6.836	8.077%	\$36,000.72	6.825	7.085%	\$489,071.94
6.930	8.073%	\$359,891.63	6.660	7.052%	\$409,807.12
6.976	8.070%	\$358,676.48	6.675	7.055%	\$471,142.41
6.970	8.071%	\$342,470.61	6.700	7.059%	\$474,871.21
6.740	8.067%	\$344,857.48	6.725	7.061%	\$474,211.64
6.760	8.069%	\$344,487.48	6.750	7.064%	\$475,273.58
6.775	8.067%	\$344,860.23	6.775	7.068%	\$476,671.68
6.800	8.064%	\$347,442.50	6.800	7.041%	\$480,344.08
6.825	8.059%	\$349,434.31	6.825	7.038%	\$481,593.05
6.875	8.051%	\$350,128.68	6.850	7.035%	\$482,401.28
6.875	8.051%	\$350,128.68	6.875	7.038%	\$484,401.28
6.890	8.041%	\$354,058.67	6.900	7.028%	\$486,468.18
6.925	8.034%	\$359,598.47	6.925	7.023%	\$487,698.27
6.975	8.025%	\$360,785.58	6.975	7.018%	\$489,628.93
6.975	8.025%	\$360,785.58	6.975	7.012%	\$492,433.88
7.025	8.022%	\$363,623.35	7.025	7.003%	\$494,118.18
7.050	8.022%	\$365,420.09	7.050	7.005%	\$492,413.04
7.075	8.019%	\$369,327.39	7.075	7.002%	\$487,170.48
7.100	8.016%	\$369,714.25	7.100	7.000%	\$484,413.04
7.150	8.010%	\$372,888.85	7.150	6.998%	\$480,223.88
7.175	8.007%	\$374,472.22	7.175	6.993%	\$481,760.05
7.200	8.004%	\$376,257.35	7.200	6.989%	\$480,223.88
7.225	8.001%	\$376,257.35	7.225	6.981%	\$480,223.88
7.250	8.000%	\$376,257.35	7.250	6.981%	\$480,223.88
7.275	7.997%	\$376,257.35	7.275	6.979%	\$480,223.88
7.300	7.994%	\$376,257.35	7.300	6.979%	\$480,223.88
7.325	7.991%	\$376,257.35	7.325	6.979%	\$480,223.88
7.350	7.988%	\$376,257.35	7.350	6.979%	\$480,223.88
7.375	7.985%	\$376,257.35	7.375	6.979%	\$480,223.88
7.400	7.982%	\$376,257.35	7.400	6.979%	\$480,223.88
7.425	7.979%	\$376,257.35	7.425	6.979%	\$480,223.88
7.450	7.976%	\$376,257.35	7.450	6.979%	\$480,223.88
7.475	7.973%	\$376,257.35	7.475	6.979%	\$480,223.88
7.500	7.970%	\$376,257.35	7.500	6.979%	\$480,223.88
7.525	7.967%	\$376,257.35	7.525	6.979%	\$480,223.88
7.550	7.964%	\$376,257.35	7.550	6.979%	\$480,223.88
7.575	7.961%	\$376,257.35	7.575	6.979%	\$480,223.88
7.600	7.958%	\$376,257.35	7.600	6.979%	\$480,223.88
7.625	7.955%	\$376,257.35	7.625	6.979%	\$480,223.88
7.650	7.952%	\$376,257.35	7.650	6.979%	\$480,223.88
7.675	7.949%	\$376,257.35	7.675	6.979%	\$480,223.88
7.700	7.946%	\$376,257.35	7.700	6.979%	\$480,223.88
7.725	7.943%	\$376,257.35	7.725	6.979%	\$480,223.88
7.750	7.940%	\$376,257.35	7.750	6.979%	\$480,223.88
7.775	7.937%	\$376,257.35	7.775	6.979%	\$480,223.88

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MODIFIED CURVE A			MODIFIED CURVE B		
Cost of Contribution In Millions	Percent	Fee	Cost of Contribution In Millions	Percent	Fee
7.600	7.0363%	\$318,970.80	7.600	6.620%	\$329,786.08
7.625	7.0383%	\$320,781.83	7.625	6.617%	\$331,597.11
7.650	7.0403%	\$322,592.86	7.650	6.614%	\$333,408.14
7.675	7.0423%	\$324,403.89	7.675	6.611%	\$335,219.17
7.700	7.0443%	\$326,214.92	7.700	6.608%	\$337,030.20
7.725	7.0463%	\$328,025.95	7.725	6.605%	\$338,841.23
7.750	7.0483%	\$329,836.98	7.750	6.602%	\$340,652.26
7.775	7.0503%	\$331,648.01	7.775	6.599%	\$342,463.29
7.800	7.0523%	\$333,459.04	7.800	6.596%	\$344,274.32
7.825	7.0543%	\$335,270.07	7.825	6.593%	\$346,085.35
7.850	7.0563%	\$337,081.10	7.850	6.590%	\$347,896.38
7.875	7.0583%	\$338,892.13	7.875	6.587%	\$349,707.41
7.900	7.0603%	\$340,703.16	7.900	6.584%	\$351,518.44
7.925	7.0623%	\$342,514.19	7.925	6.581%	\$353,329.47
7.950	7.0643%	\$344,325.22	7.950	6.578%	\$355,140.50
7.975	7.0663%	\$346,136.25	7.975	6.575%	\$356,951.53
8.000	7.0683%	\$347,947.28	8.000	6.572%	\$358,762.56
8.025	7.0703%	\$349,758.31	8.025	6.569%	\$360,573.59
8.050	7.0723%	\$351,569.34	8.050	6.566%	\$362,384.62
8.075	7.0743%	\$353,380.37	8.075	6.563%	\$364,195.65
8.100	7.0763%	\$355,191.40	8.100	6.560%	\$366,006.68
8.125	7.0783%	\$357,002.43	8.125	6.557%	\$367,817.71
8.150	7.0803%	\$358,813.46	8.150	6.554%	\$369,628.74
8.175	7.0823%	\$360,624.49	8.175	6.551%	\$371,439.77
8.200	7.0843%	\$362,435.52	8.200	6.548%	\$373,250.80
8.225	7.0863%	\$364,246.55	8.225	6.545%	\$375,061.83
8.250	7.0883%	\$366,057.58	8.250	6.542%	\$376,872.86
8.275	7.0903%	\$367,868.61	8.275	6.539%	\$378,683.89
8.300	7.0923%	\$369,679.64	8.300	6.536%	\$380,494.92
8.325	7.0943%	\$371,490.67	8.325	6.533%	\$382,305.95
8.350	7.0963%	\$373,301.70	8.350	6.530%	\$384,116.98
8.375	7.0983%	\$375,112.73	8.375	6.527%	\$385,928.01
8.400	7.1003%	\$376,923.76	8.400	6.524%	\$387,739.04
8.425	7.1023%	\$378,734.79	8.425	6.521%	\$389,550.07
8.450	7.1043%	\$380,545.82	8.450	6.518%	\$391,361.10
8.475	7.1063%	\$382,356.85	8.475	6.515%	\$393,172.13
8.500	7.1083%	\$384,167.88	8.500	6.512%	\$394,983.16
8.525	7.1103%	\$385,978.91	8.525	6.509%	\$396,794.19
8.550	7.1123%	\$387,790.94	8.550	6.506%	\$398,605.22
8.575	7.1143%	\$389,601.97	8.575	6.503%	\$400,416.25
8.600	7.1163%	\$391,413.00	8.600	6.500%	\$402,227.28
8.625	7.1183%	\$393,224.03	8.625	6.497%	\$404,038.31
8.650	7.1203%	\$395,035.06	8.650	6.494%	\$405,849.34
8.675	7.1223%	\$396,846.09	8.675	6.491%	\$407,660.37
8.700	7.1243%	\$398,657.12	8.700	6.488%	\$409,471.40
8.725	7.1263%	\$399,468.15	8.725	6.485%	\$411,282.43
8.750	7.1283%	\$401,279.18	8.750	6.482%	\$413,093.46
8.775	7.1303%	\$403,090.21	8.775	6.479%	\$414,904.49
8.800	7.1323%	\$404,901.24	8.800	6.476%	\$416,715.52
8.825	7.1343%	\$406,712.27	8.825	6.473%	\$418,526.55
8.850	7.1363%	\$408,523.30	8.850	6.470%	\$420,337.58
8.875	7.1383%	\$410,334.33	8.875	6.467%	\$422,148.61
8.900	7.1403%	\$412,145.36	8.900	6.464%	\$423,959.64
8.925	7.1423%	\$413,956.39	8.925	6.461%	\$425,770.67
8.950	7.1443%	\$415,767.42	8.950	6.458%	\$427,581.70
8.975	7.1463%	\$417,578.45	8.975	6.455%	\$429,392.73
9.000	7.1483%	\$419,389.48	9.000	6.452%	\$431,203.76
9.025	7.1503%	\$421,200.51	9.025	6.449%	\$433,014.79
9.050	7.1523%	\$423,011.54	9.050	6.446%	\$434,825.82
9.075	7.1543%	\$424,822.57	9.075	6.443%	\$436,636.85
9.100	7.1563%	\$426,633.60	9.100	6.440%	\$438,447.88
9.125	7.1583%	\$428,444.63	9.125	6.437%	\$440,258.91
9.150	7.1603%	\$430,255.66	9.150	6.434%	\$442,070.94
9.175	7.1623%	\$432,066.69	9.175	6.431%	\$443,881.97
9.200	7.1643%	\$433,877.72	9.200	6.428%	\$445,693.00
9.225	7.1663%	\$435,688.75	9.225	6.425%	\$447,504.03
9.250	7.1683%	\$437,499.78	9.250	6.422%	\$449,315.06
9.275	7.1703%	\$439,310.81	9.275	6.419%	\$451,126.09
9.300	7.1723%	\$441,121.84	9.300	6.416%	\$452,937.12
9.325	7.1743%	\$442,932.87	9.325	6.413%	\$454,748.15
9.350	7.1763%	\$444,743.90	9.350	6.410%	\$456,559.18
9.375	7.1783%	\$446,554.93	9.375	6.407%	\$458,370.21
9.400	7.1803%	\$448,365.96	9.400	6.404%	\$460,181.24
9.425	7.1823%	\$450,176.99	9.425	6.401%	\$461,992.27
9.450	7.1843%	\$451,988.02	9.450	6.398%	\$463,803.30
9.475	7.1863%	\$453,799.05	9.475	6.395%	\$465,614.33
9.500	7.1883%	\$455,610.08	9.500	6.392%	\$467,425.36
9.525	7.1903%	\$457,421.11	9.525	6.389%	\$469,236.39
9.550	7.1923%	\$459,232.14	9.550	6.386%	\$471,047.42
9.575	7.1943%	\$461,043.17	9.575	6.383%	\$472,858.45
9.600	7.1963%	\$462,854.20	9.600	6.380%	\$474,669.48
9.625	7.1983%	\$464,665.23	9.625	6.377%	\$476,480.51
9.650	7.2003%	\$466,476.26	9.650	6.374%	\$478,291.54
9.675	7.2023%	\$468,287.29	9.675	6.371%	\$480,102.57
9.700	7.2043%	\$470,098.32	9.700	6.368%	\$481,913.60
9.725	7.2063%	\$471,909.35	9.725	6.365%	\$483,724.63
9.750	7.2083%	\$473,720.38	9.750	6.362%	\$485,535.66
9.775	7.2103%	\$475,531.41	9.775	6.359%	\$487,346.69
9.800	7.2123%	\$477,342.44	9.800	6.356%	\$489,157.72
9.825	7.2143%	\$479,153.47	9.825	6.353%	\$490,968.75
9.850	7.2163%	\$480,964.50	9.850	6.350%	\$492,779.78
9.875	7.2183%	\$482,775.53	9.875	6.347%	\$494,590.81
9.900	7.2203%	\$484,586.56	9.900	6.344%	\$496,401.84
9.925	7.2223%	\$486,397.59	9.925	6.341%	\$498,212.87
9.950	7.2243%	\$488,208.62	9.950	6.338%	\$500,023.90

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MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
8.876	7.823%	\$702,010.04	8.876	6.803%	\$510,000.81		
8.000	7.823%	\$703,777.51	8.000	6.801%	\$472,000.82		
8.028	7.818%	\$703,559.48	8.028	6.799%	\$472,000.82		
8.056	7.813%	\$703,341.45	8.056	6.797%	\$471,000.81		
8.079	7.811%	\$703,062.68	8.079	6.794%	\$470,000.81		
8.100	7.811%	\$710,510.32	8.100	6.792%	\$470,002.84		
8.126	7.809%	\$712,897.08	8.126	6.790%	\$470,000.80		
8.150	7.807%	\$714,824.88	8.150	6.788%	\$469,000.80		
8.176	7.805%	\$717,837.64	8.176	6.786%	\$468,000.80		
8.200	7.803%	\$719,693.98	8.200	6.784%	\$467,000.80		
8.226	7.801%	\$721,340.79	8.226	6.782%	\$466,000.80		
8.250	7.798%	\$723,103.31	8.250	6.779%	\$465,000.80		
8.275	7.796%	\$724,984.47	8.275	6.777%	\$464,000.80		
8.300	7.794%	\$726,891.47	8.300	6.775%	\$463,000.80		
8.326	7.792%	\$728,824.40	8.326	6.773%	\$462,000.80		
8.350	7.789%	\$730,783.60	8.350	6.771%	\$461,000.80		
8.375	7.787%	\$732,768.40	8.375	6.769%	\$460,000.80		
8.400	7.785%	\$734,778.28	8.400	6.767%	\$459,000.80		
8.426	7.783%	\$736,813.73	8.426	6.765%	\$458,000.80		
8.450	7.780%	\$738,874.40	8.450	6.763%	\$457,000.80		
8.475	7.778%	\$740,960.80	8.475	6.761%	\$456,000.80		
8.500	7.776%	\$743,083.41	8.500	6.759%	\$455,000.80		
8.525	7.774%	\$745,242.72	8.525	6.757%	\$454,000.80		
8.550	7.772%	\$747,439.28	8.550	6.755%	\$453,000.80		
8.575	7.770%	\$749,673.60	8.575	6.753%	\$452,000.80		
8.600	7.768%	\$751,945.17	8.600	6.751%	\$451,000.80		
8.625	7.766%	\$754,254.41	8.625	6.749%	\$450,000.80		
8.650	7.764%	\$756,601.87	8.650	6.747%	\$449,000.80		
8.675	7.762%	\$758,988.16	8.675	6.745%	\$448,000.80		
8.700	7.760%	\$761,413.95	8.700	6.743%	\$447,000.80		
8.725	7.758%	\$763,879.88	8.725	6.741%	\$446,000.80		
8.750	7.756%	\$766,386.52	8.750	6.739%	\$445,000.80		
8.775	7.754%	\$768,933.48	8.775	6.737%	\$444,000.80		
8.800	7.752%	\$771,521.33	8.800	6.735%	\$443,000.80		
8.825	7.750%	\$774,150.60	8.825	6.733%	\$442,000.80		
8.850	7.748%	\$776,821.88	8.850	6.731%	\$441,000.80		
8.875	7.746%	\$779,535.73	8.875	6.729%	\$440,000.80		
8.900	7.744%	\$782,292.68	8.900	6.727%	\$439,000.80		
8.925	7.742%	\$785,093.38	8.925	6.725%	\$438,000.80		
8.950	7.740%	\$787,938.40	8.950	6.723%	\$437,000.80		
8.975	7.738%	\$790,828.40	8.975	6.721%	\$436,000.80		
9.000	7.736%	\$793,763.00	9.000	6.719%	\$435,000.80		
9.025	7.734%	\$796,742.80	9.025	6.717%	\$434,000.80		
9.050	7.732%	\$799,767.40	9.050	6.715%	\$433,000.80		
9.075	7.730%	\$802,837.40	9.075	6.713%	\$432,000.80		
9.100	7.728%	\$805,952.40	9.100	6.711%	\$431,000.80		
9.125	7.726%	\$809,113.00	9.125	6.709%	\$430,000.80		
9.150	7.724%	\$812,319.80	9.150	6.707%	\$429,000.80		
9.175	7.722%	\$815,572.40	9.175	6.705%	\$428,000.80		
9.200	7.720%	\$818,870.40	9.200	6.703%	\$427,000.80		
9.225	7.718%	\$822,214.40	9.225	6.701%	\$426,000.80		
9.250	7.716%	\$825,604.00	9.250	6.699%	\$425,000.80		
9.275	7.714%	\$829,039.00	9.275	6.697%	\$424,000.80		
9.300	7.712%	\$832,519.00	9.300	6.695%	\$423,000.80		
9.325	7.710%	\$836,044.00	9.325	6.693%	\$422,000.80		
9.350	7.708%	\$839,614.00	9.350	6.691%	\$421,000.80		
9.375	7.706%	\$843,229.00	9.375	6.689%	\$420,000.80		
9.400	7.704%	\$846,889.00	9.400	6.687%	\$419,000.80		
9.425	7.702%	\$850,594.00	9.425	6.685%	\$418,000.80		
9.450	7.700%	\$854,344.00	9.450	6.683%	\$417,000.80		
9.475	7.698%	\$858,139.00	9.475	6.681%	\$416,000.80		
9.500	7.696%	\$861,979.00	9.500	6.679%	\$415,000.80		
9.525	7.694%	\$865,864.00	9.525	6.677%	\$414,000.80		
9.550	7.692%	\$869,794.00	9.550	6.675%	\$413,000.80		
9.575	7.690%	\$873,769.00	9.575	6.673%	\$412,000.80		
9.600	7.688%	\$877,789.00	9.600	6.671%	\$411,000.80		
9.625	7.686%	\$881,854.00	9.625	6.669%	\$410,000.80		
9.650	7.684%	\$885,964.00	9.650	6.667%	\$409,000.80		
9.675	7.682%	\$890,119.00	9.675	6.665%	\$408,000.80		
9.700	7.680%	\$894,319.00	9.700	6.663%	\$407,000.80		
9.725	7.678%	\$898,564.00	9.725	6.661%	\$406,000.80		
9.750	7.676%	\$902,854.00	9.750	6.659%	\$405,000.80		
9.775	7.674%	\$907,189.00	9.775	6.657%	\$404,000.80		
9.800	7.672%	\$911,569.00	9.800	6.655%	\$403,000.80		
9.825	7.670%	\$915,994.00	9.825	6.653%	\$402,000.80		
9.850	7.668%	\$920,464.00	9.850	6.651%	\$401,000.80		
9.875	7.666%	\$924,979.00	9.875	6.649%	\$400,000.80		
9.900	7.664%	\$929,539.00	9.900	6.647%	\$399,000.80		
9.925	7.662%	\$934,144.00	9.925	6.645%	\$398,000.80		
9.950	7.660%	\$938,794.00	9.950	6.643%	\$397,000.80		
9.975	7.658%	\$943,489.00	9.975	6.641%	\$396,000.80		
10.000	7.656%	\$948,229.00	10.000	6.639%	\$395,000.80		

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Jimmie Schindewolf, P.E.  
General Manager

**BOARD OF DIRECTORS**  
Alan J. Rendl, *President*  
Lenox A. Sigler, *Vice President*  
Ron Graham, *Secretary*  
James D. Pulliam, *Treasurer*  
Kelly P. Fessler, *Asst. Secretary*

November 8, 2011

Dennis Sander, P.E.  
Sander Engineering Corporation  
1250 W. Sam Houston Pkwy. South, Ste. 400  
Houston, Texas 77042

Re: Agreement For Professional Engineering Services

Dear Mr. Sander:

Transmitted herewith please find one fully executed duplicate original of Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and Sander Engineering Corporation. This Agreement was approved by the Authority Board of Directors at the November 7, 2011 Board meeting. I am also sending one duplicate original to Tom Rolan (Authority Program Director), one to Robin Bobbitt (Authority General Counsel), and I am retaining two for the Authority contract file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

Jimmie Schindewolf, P.E.  
General Manager

JAS/lt

Attachment

Cc: Robin S. Bobbitt, Johnson Radcliff Petrov & Bobbitt PLLC - w/attachment  
Tom Rolan, P.E., ABCOM/Technical Services, Inc. - w/attachment  
Shovvi Nandagiri, P.E., NHCRCWA  
Cynthia Plinkert, NHCRCWA - w/attachment

**AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES**  
**SANDER ENGINEERING CORPORATION**

THE STATE OF TEXAS     §  
                                   §  
COUNTY OF HARRIS     §

THIS AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and Sander Engineering Corporation (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects;

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION I**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected in the detailed Scope of Services attached as Appendices A and A-1 and that are specifically identified in the Scope of Services that will accompany each Work Authorization issued by the General Manager.
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).
3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.

4. "Design Phase Agreed Estimate" shall mean the estimate of probable Construction Cost for a Construction Package developed at the completion of the approved Preliminary Engineering Phase, updated at the completion of the Design Phase and agreed to in writing by the General Manager and the Engineer.
5. "Preliminary Phase Agreed Estimate" shall mean the estimate of probable Construction Cost developed and agreed to in writing by the General Manager and the Engineer prior to commencing work on the Preliminary Engineering Phase of the Project. This agreed estimate applies only to the Preliminary Engineering Phase.
6. "Program Manager" shall mean the Authority's manager of its water supply program.
7. "Project" shall mean a design and/or construction project of the Authority authorized by the General Manager through the issuance of a Work Authorization.

## SECTION II

### CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Agreement, the General Manager of the Authority or his designee (hereinafter the "General Manager") may deliver to the Engineer written authorization (hereinafter known as "Work Authorization") in accordance with this Section for the performance of certain professional services with regard to specified Authority projects, which services the Engineer shall then perform in accordance with this Agreement. The General Manager may authorize the Engineer to provide all or any of the engineering and related services that are listed in **Appendices A and A-1**, attached hereto and made a part hereof.

The Authority shall have no obligation to pay for any services hereunder that have been rendered without the prior Work Authorization of the General Manager. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the Authority with progress reports at such times and in such manner as may be requested by the General Manager. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the General Manager as soon as possible.

## SECTION III

### TIME OF PERFORMANCE

Upon receipt of a Work Authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The Authority shall have no obligation to pay for a service performed after the required completion date for same, as set forth in its Work Authorization, except to the extent the



date for required completion is extended and continuation of such service is approved by the General Manager.

#### SECTION IV

#### THE ENGINEER'S COMPENSATION

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blueprint drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof, costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Agreement are described as follows:

#### Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in Appendix B attached hereto and made a part hereof.

Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in Appendix C.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.

For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.

2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.

3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.

The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### SECTION V

#### TIME OF PAYMENT

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager", in a form suitable to the Authority, setting forth the services provided under this Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person performing the services and countersigned by his/her supervisor certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Agreement have been performed. Within

forty-five (45) days after the performance of all services provided for in this Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

#### SECTION VI TERMINATION

Either party may terminate this Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Agreement, less such payments on account of the changes as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Agreement shall be delivered to the Authority when and if this Agreement is terminated.

#### SECTION VII NOTICE

Any notice required to be given under the provisions of this Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Agreement, all notices shall be delivered to the following addresses:

To the Engineer: Sander Engineering Corporation  
1250 W. Sam Houston Pkwy. South, Suite 400  
Houston, Texas 77042

Attention: Dennis W. Sander, P.E.

To the Authority: North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Attention: General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### SECTION VIII SUCCESSORS AND ASSIGNS

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Agreement. Neither the Authority nor the Engineer shall assign, sublet, or transfer its or his/her interest in this Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

#### SECTION IX PUBLIC CONTACT

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Agreement or any requested service shall be referred to the General Manager.

#### SECTION X COMPLIANCE AND STANDARDS

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### SECTION XI LICENSE REQUIREMENTS

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Agreement.

**SECTION XII**  
**INSURANCE AND INDEMNIFICATION**

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Agreement and that of its subcontractants or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subcontractants (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.

**SECTION XIII**  
**OWNERSHIP OF PLANS, COPYRIGHT, AND**  
**OTHER INTELLECTUAL PROPERTY**

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproducible plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes therefor, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Agreement, shall also be delivered by the Engineer to the General Manager when and if this Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

Copies of all complete or partially complete information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Agreement, shall also be delivered by the Engineer to the General Manager when and if this Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

**SECTION XIV**

**MODIFICATIONS**

This instrument contains the entire Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

**SECTION XV**

**AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Agreement and all questions as to the acceptable fulfillment of this Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Agreement.

**SECTION XVI**

**SEVERABILITY**

Any provision or part of this Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**SECTION XVII**

**MERGER**

The Parties agree that this Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Agreement.

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SECTION XVIII  
EXECUTION

The Authority executes this Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Agreement shall not become effective until executed by all parties hereto.

NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

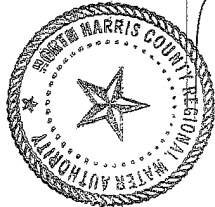
By: *Alan J. Rendt*  
Alan J. Rendt, President

Date Signed: 11-7-11

ATTEST:

By: *[Signature]*

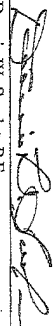
(AUTHORITY SEAL)




APPROVED:

By: *[Signature]*  
*[Signature]*  
Jigjamine Schindewolf, P.E.  
General Manager

SANDER ENGINEERING CORPORATION

By:   
Dennis W. Sander, P.E.  
President  
Date Signed: 11-9-11

ATTEST:

By:   
Name: KYLEEN J. SANDER  
Title: SECRETARY

APPENDIX A

SCOPE OF SERVICES

(Sander Engineering Corporation)

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see **Appendix A-1**) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnects, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.

APPENDIX A-1

SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES

(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

- I. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternative water line alignments considering all relevant factors and prepare schematic layouts for each alternative route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review.
  - i. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.

2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues.

associated with such submittals within fourteen (14) calendar days of receipt of submittals from the Program Manager.

- e. Prepare revisions to the contract documents (*i.e.*, change orders) at no charge to the Authority when such change orders are required to make clarifications, correct discrepancies, errors or omissions to the contract documents.
- f. When requested by the Program Manager, evaluate contractor changes and cost proposals and recommend action to the Program Manager.
- g. Make monthly site visits to the Project site to observe the progress and quality of the executed work. Such site visits are to be coordinated with the Program Manager and a site visit report shall be submitted to the Program Manager after each such site visit, indicating observations related to the executed work.
- h. Attend final Project walkthrough.
- i. Prepare "record drawings" indicating changes to the contract drawings and showing significant changes made to the work during the construction of the Project. Such changes will be based upon marked-up "record drawings" furnished to the Engineer by the Program Manager and the construction contractor.

**APPENDIX B**  
**HOURLY BILLING RATES**  
(Sander Engineering Corporation)

<u>Classification</u>	<u>Hourly Rates</u>
Principal/Senior Project Manager	\$185.00
Senior Designer	115.00
CADD Technician, III	120.00
CADD Technician, II	78.00
Clerical	68.00

**Notes:**

- (1) Additional classifications and subsequent year rates must be approved in writing by the General Manager.
- (2) Subconsultant costs and other miscellaneous expenses as approved by the General Manager will be paid at cost plus 10%.

APPENDIX C

CITY OF HOUSTON CURVES FOR MEDIAN COMPENSATION

(Sander Engineering Corporation)

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**CITY OF HOUSTON**  
Public Works and Engineering  
Department

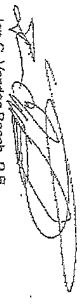
Lee P. Brown  
Mayor

Jon G. Vanlan Brock, P.E.  
Director  
Public Works & Engineering  
P.O. Box 1582  
Houston, Texas 77251-1582  
T 713.837.2027  
F 713.837.4100  
[www.cityofhouston.gov](http://www.cityofhouston.gov)

July 15, 2002

Christina M. Lindsay, Executive Director  
Houston - CEO  
2020 North Loop West, Suite 240  
Houston, Texas 77018

Dear Ms. Lindsay:  
PW&E has adapted the revised Curves of Median Compensation attached hereto. These curves and/or the associated tables will be used for determining the engineering fees as appropriate in this Department until further notice.  
Sincerely,

  
Jon C. Vanden Bosch, P.E.  
Director  
Department of Public Works and Engineering

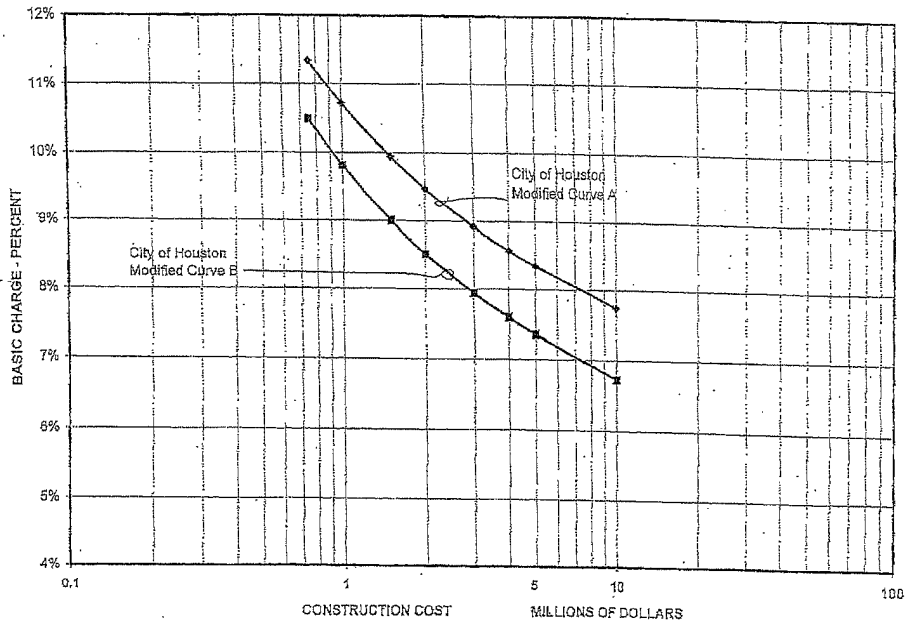
CC: Showel Nandagiri, P.E.  
Jeff Taylor  
Eric Davigan  
Rick Vacar - Aviation Department  
Monique McGilbra - Building Services Department

Council Members: Bruce Tatro Carol M. Calvey Kirk Goddard Ana Edwards Kacie Wierman Mark K. Ellis Greg Kiddin Gabriel Vazquez Cesar Hernandez  
Amanda D. Purdy Gordon Dunn Sherry Sasthukonda W.D. Michael Barry Carroll G. Robinson  
Candidates: Sybil R. Greig

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
Curves of Median Compensation  
Curves A and B

*Eranda*  
Showri Nandagiri, P.E.  
Deputy Director

*J. C. Bosch*  
John C. Venden Bosch, P.E.  
Director



6/26/2002

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
0.750	11.347%	\$95,089.31	0.750	10.489%	\$78,888.84
0.775	11.270%	\$87,398.27	0.775	10.407%	\$80,668.49
0.800	11.196%	\$89,589.35	0.800	10.323%	\$82,632.09
0.825	11.126%	\$91,786.97	0.825	10.254%	\$84,599.09
0.850	11.059%	\$94,001.54	0.850	10.183%	\$86,595.88
0.875	10.995%	\$96,204.43	0.875	10.115%	\$88,505.85
0.900	10.933%	\$98,398.99	0.900	10.050%	\$90,446.37
0.925	10.874%	\$100,585.59	0.925	9.987%	\$92,378.74
0.950	10.817%	\$102,764.99	0.950	9.927%	\$94,303.28
1.000	10.753%	\$104,935.76	1.000	9.869%	\$96,220.27
1.025	10.710%	\$107,100.00	1.025	9.813%	\$98,130.00
1.050	10.659%	\$109,257.33	1.050	9.759%	\$100,032.71
1.075	10.610%	\$111,407.98	1.075	9.707%	\$101,928.64
1.100	10.563%	\$113,552.17	1.100	9.657%	\$103,818.01
1.125	10.517%	\$115,690.11	1.125	9.609%	\$105,701.08
1.150	10.473%	\$117,822.01	1.150	9.562%	\$107,577.89
1.175	10.430%	\$119,948.05	1.175	9.517%	\$109,448.91
1.200	10.389%	\$122,068.40	1.200	9.474%	\$111,314.10
1.225	10.349%	\$124,183.25	1.225	9.431%	\$113,173.70
1.250	10.310%	\$126,292.73	1.250	9.390%	\$115,027.86
1.275	10.272%	\$128,397.02	1.275	9.350%	\$116,876.75
1.300	10.235%	\$130,496.25	1.300	9.311%	\$118,720.52
1.325	10.199%	\$132,590.56	1.325	9.274%	\$120,559.29
1.350	10.165%	\$134,680.08	1.350	9.202%	\$122,393.22
1.375	10.131%	\$136,764.95	1.375	9.167%	\$124,222.42
1.400	10.098%	\$138,845.28	1.400	9.133%	\$126,047.02
1.425	10.066%	\$140,921.18	1.425	9.101%	\$127,867.13
1.450	10.035%	\$142,992.77	1.450	9.069%	\$129,682.87
1.475	10.004%	\$145,060.15	1.475	9.039%	\$131,494.35
1.500	9.974%	\$147,123.43	1.500	9.007%	\$133,307.66
1.525	9.944%	\$149,182.70	1.525	8.977%	\$135,104.92
1.550	9.914%	\$151,238.06	1.550	8.947%	\$136,894.20
1.575	9.884%	\$153,289.58	1.575	8.918%	\$138,699.51
1.600	9.854%	\$155,337.36	1.600	8.889%	\$140,481.22
1.625	9.824%	\$157,381.49	1.625	8.861%	\$142,279.13
1.650	9.794%	\$159,422.06	1.650	8.833%	\$144,093.42
1.675	9.764%	\$161,459.10	1.675	8.806%	\$145,864.16
1.700	9.734%	\$163,492.73	1.700	8.781%	\$147,621.43
1.725	9.704%	\$165,523.00	1.725	8.756%	\$149,365.91
1.750	9.674%	\$167,549.99	1.750	8.733%	\$151,103.95
1.775	9.644%	\$169,573.76	1.775	8.709%	\$152,833.14
1.800	9.614%	\$171,594.37	1.800	8.686%	\$154,561.23
1.825	9.584%	\$173,611.90	1.825	8.663%	\$156,288.18
1.850	9.554%	\$175,626.39	1.850	8.641%	\$158,016.07
1.875	9.524%	\$177,637.90	1.875	8.619%	\$159,745.95
1.900	9.494%	\$179,646.50	1.900	8.597%	\$161,472.87
1.925	9.464%	\$181,652.24	1.925	8.576%	\$163,197.89

MODIFIED CURVE B

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
1.925	9.541%	\$183,855.17	1.925	8.693%	\$165,218.06
1.980	8.921%	\$185,855.33	1.980	8.682%	\$165,861.44
1.975	8.501%	\$181,692.79	1.975	8.584%	\$168,702.07
2.000	9.482%	\$189,847.98	2.000	8.582%	\$170,440.01
2.025	9.464%	\$191,639.78	2.025	8.602%	\$172,176.30
2.050	9.445%	\$193,829.37	2.050	8.483%	\$173,907.99
2.075	9.427%	\$195,616.46	2.075	8.464%	\$175,638.12
2.100	9.410%	\$197,501.06	2.100	8.448%	\$177,368.74
2.125	9.392%	\$199,383.21	2.125	8.428%	\$179,090.89
2.150	9.375%	\$201,562.97	2.150	8.410%	\$180,813.80
2.175	9.358%	\$203,540.96	2.175	8.392%	\$182,538.92
2.200	9.342%	\$205,518.43	2.200	8.375%	\$184,251.88
2.225	9.326%	\$207,488.21	2.225	8.358%	\$185,967.54
2.250	9.309%	\$209,458.74	2.250	8.341%	\$187,680.91
2.275	9.293%	\$211,427.05	2.275	8.325%	\$189,392.03
2.300	9.278%	\$213,393.18	2.300	8.309%	\$191,100.95
2.325	9.263%	\$215,357.16	2.325	8.293%	\$192,807.70
2.350	9.248%	\$217,319.03	2.350	8.277%	\$194,512.30
2.375	9.233%	\$219,278.81	2.375	8.262%	\$196,214.73
2.400	9.218%	\$221,236.53	2.400	8.246%	\$197,916.19
2.425	9.204%	\$223,192.23	2.425	8.231%	\$201,009.90
2.450	9.190%	\$225,145.94	2.450	8.217%	\$203,004.25
2.475	9.176%	\$227,097.68	2.475	8.202%	\$204,898.83
2.500	9.162%	\$229,047.48	2.500	8.188%	\$206,797.09
2.525	9.148%	\$230,995.37	2.525	8.174%	\$208,697.09
2.550	9.135%	\$232,941.37	2.550	8.160%	\$209,579.63
2.575	9.122%	\$234,886.52	2.575	8.146%	\$209,762.30
2.600	9.109%	\$236,827.83	2.600	8.133%	\$211,447.10
2.625	9.095%	\$238,768.33	2.625	8.119%	\$213,130.08
2.650	9.083%	\$240,707.05	2.650	8.106%	\$214,811.25
2.675	9.071%	\$242,644.01	2.675	8.093%	\$216,490.64
2.700	9.058%	\$244,579.23	2.700	8.080%	\$218,168.27
2.725	9.046%	\$246,512.73	2.725	8.068%	\$219,844.16
2.750	9.034%	\$248,444.54	2.750	8.055%	\$221,518.34
2.775	9.023%	\$250,374.68	2.775	8.043%	\$223,190.88
2.800	9.011%	\$252,303.17	2.800	8.031%	\$224,861.65
2.825	8.999%	\$254,230.02	2.825	8.019%	\$226,530.82
2.850	8.988%	\$256,155.27	2.850	8.007%	\$228,198.35
2.875	8.977%	\$258,078.89	2.875	7.995%	\$229,864.28
2.900	8.966%	\$260,001.02	2.900	7.984%	\$231,528.63
2.925	8.956%	\$261,921.56	2.925	7.972%	\$233,191.40
2.950	8.944%	\$263,840.67	2.950	7.961%	\$234,852.82
2.975	8.933%	\$265,758.06	2.975	7.950%	\$236,512.30
3.000	8.922%	\$267,674.08	3.000	7.939%	\$238,170.48
3.025	8.912%	\$269,588.67	3.025	7.928%	\$239,827.16
3.050	8.902%	\$271,501.82	3.050	7.917%	\$241,482.35
3.075	8.891%	\$273,413.23	3.075	7.907%	\$243,138.08

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee
3.100	8.881%	\$275,323.41
3.125	8.877%	\$277,232.18
3.150	8.882%	\$279,133.55
3.175	8.882%	\$281,045.54
3.200	8.882%	\$282,950.17
3.225	8.883%	\$284,853.44
3.250	8.883%	\$286,755.38
3.275	8.884%	\$288,655.00
3.300	8.885%	\$290,555.31
3.325	8.886%	\$292,453.33
3.350	8.887%	\$294,350.07
3.375	8.888%	\$296,245.55
3.400	8.889%	\$298,139.77
3.425	8.890%	\$299,032.75
3.450	8.891%	\$300,924.50
3.475	8.892%	\$302,815.04
3.500	8.893%	\$304,704.38
3.525	8.894%	\$306,592.53
3.550	8.895%	\$308,479.60
3.575	8.896%	\$310,365.30
3.600	8.897%	\$312,249.95
3.625	8.898%	\$314,133.45
3.650	8.899%	\$316,015.82
3.675	8.900%	\$317,897.07
3.700	8.901%	\$319,777.21
3.725	8.902%	\$321,656.25
3.750	8.903%	\$323,534.20
3.775	8.904%	\$325,411.07
3.800	8.905%	\$327,286.87
3.825	8.906%	\$329,161.61
3.850	8.907%	\$331,035.30
3.875	8.908%	\$332,907.95
3.900	8.909%	\$334,779.57
3.925	8.910%	\$336,650.17
3.950	8.911%	\$338,519.75
3.975	8.912%	\$340,388.33
4.000	8.913%	\$342,255.92
4.025	8.914%	\$344,122.62
4.050	8.915%	\$345,989.15
4.075	8.916%	\$347,854.81
4.100	8.917%	\$349,718.50
4.125	8.918%	\$351,581.23
4.150	8.919%	\$353,441.05
4.175	8.920%	\$355,297.91
4.200	8.921%	\$357,151.85
4.225	8.922%	\$358,002.87
4.250	8.923%	\$359,850.98

MODIFIED CURVE B

Cost of Construction In Millions	Percent	Fee
3.100	7.896%	\$244,798.37
3.125	7.896%	\$246,439.23
3.150	7.876%	\$248,088.58
3.175	7.866%	\$249,736.73
3.200	7.866%	\$251,383.40
3.225	7.846%	\$253,028.70
3.250	7.836%	\$254,672.85
3.275	7.826%	\$256,315.25
3.300	7.817%	\$257,956.65
3.325	7.807%	\$259,596.05
3.350	7.798%	\$261,235.21
3.375	7.789%	\$262,872.52
3.400	7.780%	\$264,508.75
3.425	7.771%	\$266,143.54
3.450	7.762%	\$267,777.28
3.475	7.753%	\$269,409.99
3.500	7.744%	\$271,040.89
3.525	7.735%	\$272,670.88
3.550	7.727%	\$274,299.87
3.575	7.718%	\$275,927.29
3.600	7.710%	\$277,553.74
3.625	7.701%	\$279,179.03
3.650	7.693%	\$280,803.18
3.675	7.685%	\$282,425.19
3.700	7.677%	\$284,046.07
3.725	7.669%	\$285,665.84
3.750	7.661%	\$287,284.51
3.775	7.653%	\$288,902.09
3.800	7.645%	\$290,519.58
3.825	7.638%	\$292,136.00
3.850	7.630%	\$293,751.36
3.875	7.622%	\$295,370.66
3.900	7.615%	\$296,983.93
3.925	7.608%	\$298,596.16
3.950	7.600%	\$300,207.36
3.975	7.593%	\$301,817.65
4.000	7.586%	\$303,426.73
4.025	7.579%	\$305,034.91
4.050	7.571%	\$306,642.11
4.075	7.564%	\$308,248.32
4.100	7.557%	\$309,853.55
4.125	7.550%	\$311,457.04
4.150	7.544%	\$313,058.17
4.175	7.537%	\$314,653.55
4.200	7.530%	\$316,244.99
4.225	7.523%	\$317,835.49
4.250	7.517%	\$319,425.03

0/26/2002

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee
4.275	8.508%	\$363,736.18
4.300	8.502%	\$365,692.48
4.325	8.496%	\$367,647.90
4.350	8.490%	\$369,602.43
4.375	8.484%	\$371,556.99
4.400	8.477%	\$373,508.88
4.425	8.471%	\$374,960.80
4.450	8.465%	\$376,711.88
4.475	8.459%	\$378,562.10
4.500	8.454%	\$380,411.49
4.525	8.448%	\$382,260.04
4.550	8.442%	\$384,107.76
4.575	8.436%	\$385,954.68
4.600	8.430%	\$387,800.75
4.625	8.425%	\$389,648.03
4.650	8.419%	\$391,490.50
4.675	8.414%	\$393,334.18
4.700	8.408%	\$395,177.07
4.725	8.403%	\$397,019.17
4.750	8.397%	\$398,860.60
4.775	8.392%	\$400,701.06
4.800	8.386%	\$402,540.83
4.825	8.381%	\$404,379.86
4.850	8.376%	\$406,218.13
4.875	8.370%	\$408,055.64
4.900	8.365%	\$409,892.42
4.925	8.360%	\$411,728.45
4.950	8.355%	\$413,563.75
4.975	8.350%	\$415,398.32
5.000	8.345%	\$417,232.17
5.025	8.340%	\$419,066.29
5.050	8.335%	\$420,897.71
5.075	8.330%	\$422,729.42
5.100	8.325%	\$424,560.42
5.125	8.320%	\$426,390.72
5.150	8.315%	\$428,220.33
5.175	8.310%	\$430,049.25
5.200	8.305%	\$431,877.48
5.225	8.301%	\$433,705.06
5.250	8.296%	\$435,531.93
5.275	8.291%	\$437,358.14
5.300	8.286%	\$439,183.69
5.325	8.282%	\$441,008.57
5.350	8.277%	\$442,832.80
5.375	8.273%	\$444,656.37
5.400	8.268%	\$446,479.30
5.425	8.264%	\$448,301.68

MODIFIED CURVE B

Cost of Construction In Millions	Percent	Fee
4.275	7.810%	\$321,083.75
4.300	7.804%	\$322,881.51
4.325	7.797%	\$324,678.57
4.350	7.791%	\$326,474.33
4.375	7.785%	\$327,469.41
4.400	7.779%	\$328,463.61
4.425	7.772%	\$329,458.94
4.450	7.766%	\$330,454.41
4.475	7.760%	\$331,450.01
4.500	7.754%	\$332,445.77
4.525	7.748%	\$333,441.58
4.550	7.742%	\$334,437.44
4.575	7.736%	\$335,433.35
4.600	7.730%	\$336,429.31
4.625	7.724%	\$337,425.32
4.650	7.718%	\$338,421.38
4.675	7.712%	\$339,417.49
4.700	7.706%	\$340,413.65
4.725	7.700%	\$341,409.86
4.750	7.694%	\$342,406.12
4.775	7.688%	\$343,402.43
4.800	7.682%	\$344,398.79
4.825	7.676%	\$345,395.20
4.850	7.670%	\$346,391.66
4.875	7.664%	\$347,388.17
4.900	7.658%	\$348,384.73
4.925	7.652%	\$349,381.34
4.950	7.646%	\$350,378.00
4.975	7.640%	\$351,374.71
5.000	7.634%	\$352,371.47
5.025	7.628%	\$353,368.28
5.050	7.622%	\$354,365.13
5.075	7.616%	\$355,362.03
5.100	7.610%	\$356,358.97
5.125	7.604%	\$357,355.96
5.150	7.598%	\$358,352.99
5.175	7.592%	\$359,350.06
5.200	7.586%	\$360,347.17
5.225	7.580%	\$361,344.32
5.250	7.574%	\$362,341.51
5.275	7.568%	\$363,338.74
5.300	7.562%	\$364,336.01
5.325	7.556%	\$365,333.32
5.350	7.550%	\$366,330.67
5.375	7.544%	\$367,328.06
5.400	7.538%	\$368,325.48
5.425	7.532%	\$369,322.94

6/28/2002

MODIFIED CURVE A

Cost of Construction in Millions	Percent	Fee	Cost of Construction in Millions	Percent	Fee
5.450	8.255%	\$480,123.22	5.450	7.263%	\$395,298.49
5.473	8.255%	\$461,944.22	5.475	7.248%	\$396,650.61
5.500	8.250%	\$453,764.60	5.500	7.244%	\$398,411.88
5.525	8.246%	\$445,584.34	5.525	7.239%	\$399,972.83
5.550	8.242%	\$437,404.47	5.550	7.233%	\$401,532.74
5.575	8.237%	\$429,224.97	5.575	7.228%	\$403,092.22
5.600	8.233%	\$421,045.47	5.600	7.223%	\$404,651.08
5.625	8.229%	\$412,865.96	5.625	7.217%	\$406,209.52
5.650	8.224%	\$404,686.46	5.650	7.213%	\$407,768.94
5.675	8.220%	\$396,506.95	5.675	7.208%	\$409,328.35
5.700	8.215%	\$388,327.45	5.700	7.204%	\$410,887.35
5.725	8.212%	\$380,147.94	5.725	7.200%	\$412,446.15
5.750	8.208%	\$371,968.43	5.750	7.196%	\$413,999.15
5.775	8.203%	\$363,788.92	5.775	7.191%	\$415,545.95
5.800	8.198%	\$355,609.41	5.800	7.187%	\$417,089.96
5.825	8.193%	\$347,429.90	5.825	7.183%	\$418,633.38
5.850	8.187%	\$339,250.39	5.850	7.179%	\$420,206.21
5.875	8.182%	\$331,070.88	5.875	7.175%	\$421,759.46
5.900	8.177%	\$322,891.37	5.900	7.171%	\$423,310.13
5.925	8.173%	\$314,711.86	5.925	7.167%	\$424,861.23
5.950	8.168%	\$306,532.35	5.950	7.163%	\$426,411.75
5.975	8.164%	\$298,352.84	5.975	7.159%	\$427,961.71
6.000	8.160%	\$290,173.33	6.000	7.155%	\$429,511.10
6.025	8.156%	\$282,000.00	6.025	7.151%	\$431,060.92
6.050	8.152%	\$273,826.67	6.050	7.147%	\$432,609.19
6.075	8.148%	\$265,653.34	6.075	7.143%	\$434,158.91
6.100	8.144%	\$257,480.01	6.100	7.139%	\$435,708.07
6.125	8.140%	\$249,306.68	6.125	7.135%	\$437,257.98
6.150	8.136%	\$241,133.35	6.150	7.131%	\$438,807.79
6.175	8.132%	\$232,960.02	6.175	7.127%	\$440,357.27
6.200	8.128%	\$224,786.69	6.200	7.123%	\$441,906.26
6.225	8.124%	\$216,613.36	6.225	7.120%	\$443,454.70
6.250	8.120%	\$208,440.03	6.250	7.116%	\$444,974.62
6.275	8.116%	\$200,266.70	6.275	7.112%	\$446,518.00
6.300	8.112%	\$192,093.37	6.300	7.109%	\$448,060.86
6.325	8.108%	\$183,920.04	6.325	7.105%	\$449,603.20
6.350	8.104%	\$175,746.71	6.350	7.101%	\$451,145.01
6.375	8.100%	\$167,573.38	6.375	7.097%	\$452,686.30
6.400	8.096%	\$159,400.05	6.400	7.093%	\$454,227.08
6.425	8.092%	\$151,226.72	6.425	7.089%	\$455,767.34
6.450	8.088%	\$143,053.39	6.450	7.085%	\$457,307.10
6.475	8.084%	\$134,880.06	6.475	7.081%	\$458,846.35
6.500	8.080%	\$126,706.73	6.500	7.077%	\$460,385.09
6.525	8.076%	\$118,533.40	6.525	7.073%	\$461,923.33
6.550	8.072%	\$110,360.07	6.550	7.069%	\$463,461.08
6.575	8.068%	\$102,186.74	6.575	7.065%	\$464,998.32
6.600	8.064%	\$94,013.41	6.600	7.061%	\$466,535.08

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee
6.625	8.077%	\$535,086.72
6.650	8.073%	\$536,881.83
6.675	8.070%	\$538,676.46
6.700	8.067%	\$540,470.61
6.725	8.063%	\$542,264.28
6.750	8.060%	\$544,057.49
6.775	8.057%	\$545,850.23
6.800	8.054%	\$547,642.50
6.825	8.050%	\$549,434.31
6.850	8.047%	\$551,225.63
6.875	8.044%	\$553,016.34
6.900	8.041%	\$554,806.97
6.925	8.038%	\$556,596.95
6.950	8.034%	\$558,386.47
6.975	8.031%	\$560,175.56
7.000	8.028%	\$561,964.17
7.025	8.025%	\$563,752.36
7.050	8.022%	\$565,540.09
7.075	8.019%	\$567,327.38
7.100	8.016%	\$569,114.25
7.125	8.013%	\$570,900.67
7.150	8.010%	\$572,686.66
7.175	8.007%	\$574,472.22
7.200	8.004%	\$576,257.35
7.225	8.001%	\$578,042.05
7.250	7.998%	\$579,826.32
7.275	7.995%	\$581,610.10
7.300	7.992%	\$583,393.61
7.325	7.989%	\$585,176.82
7.350	7.986%	\$586,959.21
7.375	7.983%	\$588,741.39
7.400	7.980%	\$590,523.16
7.425	7.977%	\$592,304.51
7.450	7.974%	\$594,085.45
7.475	7.971%	\$595,865.99
7.500	7.968%	\$597,646.12
7.525	7.965%	\$599,425.85
7.550	7.962%	\$601,205.18
7.575	7.959%	\$602,984.11
7.600	7.956%	\$604,762.64
7.625	7.953%	\$606,540.78
7.650	7.950%	\$608,318.52
7.675	7.947%	\$610,095.87
7.700	7.944%	\$611,872.83
7.725	7.941%	\$613,649.40
7.750	7.938%	\$615,425.58
7.775	7.935%	\$617,201.38

MODIFIED CURVE B

Cost of Construction In Millions	Percent	Fee
6.625	7.065%	\$468,071.34
6.650	7.062%	\$469,607.12
6.675	7.059%	\$471,142.41
6.700	7.055%	\$472,677.21
6.725	7.051%	\$474,211.54
6.750	7.048%	\$475,745.30
6.775	7.044%	\$477,278.79
6.800	7.041%	\$478,811.96
6.825	7.038%	\$480,344.09
6.850	7.035%	\$481,876.05
6.875	7.031%	\$483,407.55
6.900	7.028%	\$484,938.58
6.925	7.025%	\$486,469.15
6.950	7.022%	\$487,999.27
6.975	7.018%	\$489,528.93
7.000	7.015%	\$491,058.13
7.025	7.012%	\$492,586.88
7.050	7.009%	\$494,116.19
7.075	7.006%	\$495,643.04
7.100	7.002%	\$497,170.46
7.125	6.999%	\$498,697.43
7.150	6.996%	\$500,223.96
7.175	6.993%	\$501,750.05
7.200	6.990%	\$503,275.71
7.225	6.987%	\$504,800.93
7.250	6.984%	\$506,325.72
7.275	6.981%	\$507,850.08
7.300	6.978%	\$509,374.02
7.325	6.975%	\$510,897.53
7.350	6.972%	\$512,420.61
7.375	6.969%	\$513,943.28
7.400	6.966%	\$515,465.53
7.425	6.963%	\$516,987.39
7.450	6.960%	\$518,508.77
7.475	6.957%	\$520,029.77
7.500	6.954%	\$521,550.36
7.525	6.951%	\$523,070.54
7.550	6.948%	\$524,590.32
7.575	6.945%	\$526,109.69
7.600	6.942%	\$527,628.65
7.625	6.940%	\$529,147.21
7.650	6.937%	\$530,665.39
7.675	6.934%	\$532,183.14
7.700	6.931%	\$533,700.52
7.725	6.928%	\$535,217.49
7.750	6.926%	\$536,734.08
7.775	6.923%	\$538,250.27



0/25/2002

MODIFIED CURVE A

Cost of Construction in Millions	Percent	Fee
7.800	7.936%	\$618,976.80
7.825	7.933%	\$620,751.83
7.850	7.930%	\$622,526.49
7.875	7.928%	\$624,300.76
7.900	7.925%	\$626,074.66
7.925	7.922%	\$627,848.19
7.950	7.920%	\$629,621.35
7.975	7.917%	\$631,394.13
8.000	7.916%	\$633,166.54
8.025	7.912%	\$634,938.59
8.050	7.908%	\$636,710.27
8.075	7.907%	\$638,481.58
8.100	7.904%	\$640,252.54
8.125	7.903%	\$642,023.13
8.150	7.903%	\$643,793.36
8.175	7.902%	\$645,563.23
8.200	7.901%	\$647,332.75
8.225	7.899%	\$649,101.91
8.250	7.898%	\$650,870.72
8.275	7.897%	\$652,639.19
8.300	7.894%	\$654,407.29
8.325	7.892%	\$656,175.09
8.350	7.890%	\$657,942.46
8.375	7.877%	\$659,709.52
8.400	7.875%	\$661,476.24
8.425	7.872%	\$663,242.62
8.450	7.870%	\$665,008.66
8.475	7.868%	\$666,774.35
8.500	7.865%	\$668,538.71
8.525	7.863%	\$670,304.73
8.550	7.860%	\$672,068.42
8.575	7.858%	\$673,833.77
8.600	7.856%	\$675,597.79
8.625	7.854%	\$677,361.47
8.650	7.851%	\$679,124.83
8.675	7.848%	\$680,887.86
8.700	7.847%	\$682,650.56
8.725	7.844%	\$684,412.93
8.750	7.842%	\$686,174.98
8.775	7.840%	\$687,936.71
8.800	7.837%	\$689,698.11
8.825	7.835%	\$691,459.20
8.850	7.832%	\$693,219.96
8.875	7.831%	\$694,980.41
8.900	7.829%	\$696,740.54
8.925	7.826%	\$698,500.35
8.950	7.824%	\$700,259.89

MODIFIED CURVE B

Cost of Construction in Millions	Percent	Fee
7.800	6.920%	\$339,766.08
7.825	6.917%	\$341,281.49
7.850	6.915%	\$342,796.53
7.875	6.912%	\$344,311.18
7.900	6.909%	\$345,825.45
7.925	6.908%	\$347,339.33
7.950	6.904%	\$348,852.84
7.975	6.901%	\$350,365.98
8.000	6.899%	\$351,878.74
8.025	6.895%	\$353,391.12
8.050	6.893%	\$354,903.14
8.075	6.891%	\$356,414.78
8.100	6.888%	\$357,926.06
8.125	6.885%	\$359,436.97
8.150	6.883%	\$360,947.51
8.175	6.880%	\$362,457.69
8.200	6.878%	\$363,967.51
8.225	6.875%	\$365,476.97
8.250	6.873%	\$366,986.07
8.275	6.870%	\$368,494.82
8.300	6.868%	\$370,003.20
8.325	6.866%	\$371,511.24
8.350	6.863%	\$373,018.92
8.375	6.860%	\$374,526.25
8.400	6.858%	\$376,033.23
8.425	6.855%	\$377,539.85
8.450	6.853%	\$379,046.18
8.475	6.850%	\$380,552.09
8.500	6.848%	\$382,057.69
8.525	6.846%	\$383,562.94
8.550	6.843%	\$385,067.86
8.575	6.840%	\$386,572.43
8.600	6.838%	\$388,076.67
8.625	6.835%	\$389,580.57
8.650	6.833%	\$391,084.14
8.675	6.831%	\$392,587.37
8.700	6.829%	\$394,090.27
8.725	6.824%	\$395,592.84
8.750	6.822%	\$397,095.07
8.775	6.820%	\$398,596.96
8.800	6.819%	\$400,098.57
8.825	6.817%	\$401,599.83
8.850	6.815%	\$403,100.76
8.875	6.812%	\$404,601.37
8.900	6.810%	\$406,101.68
8.925	6.808%	\$407,601.63
8.950	6.806%	\$409,101.28

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee
8,976	7.822%	\$702,019.04
9,000	7.820%	\$703,777.91
9,025	7.818%	\$705,656.48
9,050	7.815%	\$707,294.73
9,075	7.813%	\$709,082.58
9,100	7.811%	\$710,810.32
9,125	7.809%	\$712,567.95
9,150	7.807%	\$714,324.68
9,175	7.805%	\$716,081.41
9,200	7.803%	\$717,837.84
9,225	7.800%	\$719,593.98
9,250	7.798%	\$721,349.79
9,275	7.796%	\$723,105.31
9,300	7.794%	\$724,860.54
9,325	7.792%	\$726,615.47
9,350	7.790%	\$728,370.11
9,375	7.788%	\$730,124.45
9,400	7.786%	\$731,878.50
9,425	7.784%	\$733,632.26
9,450	7.782%	\$735,385.73
9,475	7.780%	\$737,139.91
9,500	7.778%	\$738,891.80
9,525	7.776%	\$740,644.41
9,550	7.774%	\$742,396.72
9,575	7.772%	\$744,148.78
9,600	7.770%	\$745,900.60
9,625	7.768%	\$747,651.97
9,650	7.766%	\$749,403.15
9,675	7.764%	\$751,154.08
9,700	7.762%	\$752,904.69
9,725	7.760%	\$754,655.02
9,750	7.758%	\$756,405.09
9,775	7.756%	\$758,154.88
9,800	7.754%	\$759,904.39
9,825	7.752%	\$761,653.53
9,850	7.750%	\$763,402.60
9,875	7.748%	\$765,151.29
9,900	7.746%	\$766,899.71
9,925	7.743%	\$768,647.66
9,950	7.741%	\$770,395.74
9,975	7.739%	\$772,143.36
10,000	7.739%	\$773,890.70

MODIFIED CURVE B

Cost of Construction In Millions	Percent	Fee
8,976	6.803%	\$310,800.61
9,000	6.801%	\$312,099.62
9,025	6.799%	\$313,599.32
9,050	6.797%	\$315,098.71
9,075	6.794%	\$316,594.78
9,100	6.792%	\$318,092.54
9,125	6.790%	\$319,589.98
9,150	6.788%	\$321,087.13
9,175	6.786%	\$322,583.97
9,200	6.783%	\$324,080.48
9,225	6.781%	\$325,576.71
9,250	6.779%	\$327,072.63
9,275	6.777%	\$328,568.24
9,300	6.776%	\$330,063.56
9,325	6.774%	\$331,558.58
9,350	6.773%	\$333,053.28
9,375	6.771%	\$334,547.69
9,400	6.769%	\$336,041.80
9,425	6.767%	\$337,535.62
9,450	6.765%	\$339,029.14
9,475	6.763%	\$340,522.37
9,500	6.761%	\$342,016.31
9,525	6.759%	\$343,509.95
9,550	6.757%	\$345,003.31
9,575	6.755%	\$346,496.37
9,600	6.753%	\$347,989.16
9,625	6.748%	\$349,475.63
9,650	6.746%	\$350,966.84
9,675	6.744%	\$352,457.75
9,700	6.742%	\$353,948.38
9,725	6.740%	\$355,438.73
9,750	6.739%	\$356,928.80
9,775	6.736%	\$358,418.58
9,800	6.734%	\$359,908.09
9,825	6.732%	\$361,397.31
9,850	6.730%	\$362,886.36
9,875	6.728%	\$364,374.94
9,900	6.726%	\$365,863.33
9,925	6.724%	\$367,351.45
9,950	6.722%	\$368,839.29
9,975	6.720%	\$370,326.86
10,000	6.718%	\$371,814.46



Jimmie Schindewolf, PE  
General Manager

September 12, 2014

**BOARD OF DIRECTORS**  
Kelly P. Fassler, *President*  
Alan J. Rendt, *Vice President*  
Ron G. Graham, *Secretary*  
James D. Pulliam, *Treasurer*  
Lenox A. Sigler, *Asst. Secretary*

Git Zaitnikalk, P.E.  
President  
Zaitnikalk Engineering Services, Inc.  
3033 Chimney Rock, Suite 630  
Houston, Texas 77056

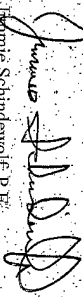
Re: Agreement For Professional Engineering Services

Dear Ms. Zaitnikalk:

Transmitted herewith please find one fully executed duplicate original of Agreement For Professional Engineering Services between the North Harris County Regional Water Authority (the "Authority") and Zaitnikalk Engineering Services, Inc. This Agreement was approved by the Authority Board of Directors at the September 8, 2014 Board meeting. I am also sending one duplicate original to Tom Rolan (Authority Program Director), one to Robin S. Bobbitt (Authority General Counsel), and I am retaining one for the Authority contract file.

Please call me if you have any questions or need any additional information relative to this matter.

Sincerely,

  
Jimmie Schindewolf, P.E.  
General Manager

JAS/lt

Attachment

Cc: Robin S. Bobbitt, Radcliffe Bobbitt Adams Polley P.L.L.C. - w/attachment  
Jon Polley, Radcliffe Bobbitt Adams Polley P.L.L.C. - w/attachment (copy)  
Tom Rolan, P.E., ABCOM Technical Services, Inc. - w/attachment  
Shawn Naudaght, P.E., NHCRWA  
Cyndi Plunkett, NHCRWA - w/attachment (copy)

AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES  
ZARINKELK ENGINEERING SERVICES, INC.

THE STATE OF TEXAS       §  
  §  
COUNTY OF HARRIS       §

THIS AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES (the "Agreement") is made and entered into by and between the North Harris County Regional Water Authority (hereinafter the "Authority"), a governmental agency and body politic and corporate of the State of Texas, and Zarinkelk Engineering Services, Inc. (hereinafter the "Engineer").

**RECITALS:**

The Authority desires on-call services of an Engineer from time to time to provide professional engineering services as may be needed in support of Authority-sponsored projects;

The Engineer represents that it is qualified and willing to provide such services that may be required by the Authority; and

**NOW, THEREFORE**, the Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**TERMS:**

**SECTION I**

**DEFINITIONS**

1. "Basic Engineering Design Services" shall mean the items reflected as such in the detailed Scope of Services attached to the Work Authorization issued by the General Manager. A SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES is attached as Appendix A-1.
2. "Construction Cost" shall mean the direct cost to the Authority paid to the construction contractor for all items included in a Construction Package, including labor, materials, equipment and cash allowances required for the Construction Package and determined by the actual construction contract amount, less the cost of permits, allowances and items designed and paid for as additional services, including separate bid prices for such items (e.g., Traffic Control Plan, Storm Water Pollution Prevention Plan and Cathodic Protection).
3. "Construction Package" shall mean the graphics and written information prepared by the Engineer and that is required for providing the design, obtaining bids and administering the construction contract for the Project.

4. "Design Phase Agreed Estimate" shall mean the estimate of probable Construction Cost for a Construction Package developed at the completion of the approved Preliminary Engineering Phase, updated at the completion of the Design Phase and agreed to in writing by the General Manager and the Engineer.
5. "Preliminary Phase Agreed Estimate" shall mean the estimate of probable Construction Cost developed and agreed to in writing by the General Manager and the Engineer prior to commencing work on the Preliminary Engineering Phase of the Project. This agreed estimate applies only to the Preliminary Engineering Phase.
6. "Program Manager" shall mean the Authority's manager of its water supply program.
7. "Project" shall mean a design and/or construction project of the Authority authorized by the General Manager through the issuance of a Work Authorization.

## SECTION II

### CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Agreement, the General Manager of the Authority or his designee (hereinafter the "General Manager") may deliver to the Engineer written authorization (hereinafter known as "Work Authorization") in accordance with this Section for the performance of certain professional services with regard to specified Authority projects, which services the Engineer shall then perform in accordance with this Agreement. The General Manager may authorize the Engineer to provide all or any of the engineering and related services that are listed in Appendices A and A-1, attached hereto and made a part hereof.

The Authority shall have no obligation to pay for any services hereunder that have been rendered without the prior Work Authorization of the General Manager. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the Authority with progress reports at such times and in such manner as may be requested by the General Manager. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the General Manager as soon as possible.

## SECTION III

### TIME OF PERFORMANCE

Upon receipt of a Work Authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The Authority shall have no obligation to pay for a service performed after the required completion date for same, as set forth in its Work Authorization, except to the extent the

date for required completion is extended and continuation of such service is approved by the General Manager.

#### SECTION IV

##### THE ENGINEER'S COMPENSATION

For and in consideration of services rendered hereunder by the Engineer, the Authority shall pay the Engineer reimbursable compensation, lump sum compensation, or percent of construction cost compensation as agreed to in writing by the Engineer and General Manager for each Work Authorization, as such form of compensation may be applicable.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the Authority be obligated to pay or reimburse the Engineer for normal business expenses such as overtime premium rate, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blueprint drawings or photocopies specifically required by Section II hereof, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the General Manager prior to their being incurred, the Engineer may be reimbursed for the reasonable and necessary cost of the following (plus 10% of reimbursable invoice cost only if services are performed by a subcontractor pursuant to authorization for such expense), to the extent they are incurred in providing services hereunder: copies of reports or other documents to be delivered to the Authority or in accordance with instructions of the Authority in excess of the number specifically required by Section II hereof, costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the project site, costs of presentation materials (*i.e.*, charts, slides, transparencies), and costs of photographic and video services. Should the General Manager direct that work be performed on an overtime basis, the overtime premium may be authorized by the General Manager.

The Authority shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its Work Authorization, except to the extent the budget for such service is increased and continuation of such service is approved by the General Manager.

The forms of compensation to be paid under the provisions of this Agreement are described as follows:

##### Reimbursable Compensation

For services compensated under the reimbursable method, the Authority shall pay the Engineer in accordance with the hourly rates reflected in **Appendix B** attached hereto and made a part hereof.

Lump Sum Compensation

For services compensated under the lump sum method, the Authority shall pay the Engineer a lump sum amount with interim monthly progress payments made equal to the estimated percent complete of the authorized services times the lump sum fee. However, if the services are for development of a Construction Package, including the Preliminary Engineering, Design and Construction Phases of the Project, a budget will be established for each phase of the Project and interim payments will be calculated as described above. Final compensation for each phase of the Project will be made after all required documents are provided to and approved by the General Manager, except as follows: 1) until such time as a construction contract for the Project is bid or not more than nine (9) months have elapsed since final plans and specifications have been submitted and approved by the Authority, whichever occurs first, the maximum compensation payable to the Engineer for the Design Phase of the Project shall not exceed 95% of the fee budgeted for this phase of the Project; and 2) final payment for the Construction Phase of the Project shall be made after the constructed Project is accepted by the Authority and all required deliverables are provided by the Engineer to the Authority, including record drawings, etc. for the Project.

Percent of Construction Cost Compensation

For Basic Engineering Design Services to be compensated under the percent of construction cost method, the Authority shall pay the Engineer an amount based on a percentage of either the actual Construction Cost or an agreed estimate as provided below. Unless otherwise agreed in writing by the Engineer and the General Manager, the percentage of the respective base fee allowable for each phase shall be as follows: 1) Preliminary Engineering Phase - 35% of the total fee; 2) Design Phase - 50% of the total fee; and 3) Construction Phase - 15% of the total fee. The total fee shall be based on the City of Houston Curves of Median Compensation, as reflected in Appendix C.

For interim and final payments during the Preliminary Engineering Phase, the Preliminary Phase Agreed Estimate will be used unless otherwise established. Interim payments shall be equal to the percentage of completion of the Preliminary Engineering Phase multiplied by the preliminary engineering base fee.

For interim payments during the Design Phase, the Design Phase Agreed Estimate established at the end of the Preliminary Engineering Phase of the Project shall be used in calculating the base fee for the Design Phase. The basis for interim payments shall be equal to the percent complete of the Design Phase multiplied by the Design Phase base fee.

The final payment for the Design Phase shall be calculated as follows:

1. If a construction contract for the Project is not advertised for bids or not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.

2. If a construction contract for the Project is advertised for bids but not awarded within nine (9) months from the date the final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the most current Design Phase Agreed Estimate, less any previous payments.

3. If a construction contract for the Project is awarded within nine (9) months from the date final plans and specifications were submitted and approved by the Authority, the final payment to the Engineer for the Design Phase shall be calculated based on the lowest responsive bid received for the Construction Package, less any previous payments. However, the Engineer's fee will not be any lower than 95%, nor any greater than 105% of the base fee calculated using the most current Design Phase Agreed Estimate.

The allowable fee for the Construction Phase of the Project shall be calculated based on the actual cost of the construction contract awarded for the Project. For interim payments during the Construction Phase, the fee shall be prorated based on the percentage of construction completed. Up to 95% of the total Construction Phase fee shall be paid when the construction contract is determined to be substantially complete. The remaining 5% shall be paid thirty (30) days after the final approval of construction by the Authority and delivery of record drawings for the Project to the General Manager.

#### SECTION V

#### TIME OF PAYMENT

On or about the fifteenth (15<sup>th</sup>) day of each calendar month during the performance of the services to be provided under this Agreement, the Engineer shall submit a sworn statement to the General Manager and marked "Attention: Program Manager", in a form suitable to the Authority, setting forth the services provided under this Agreement which were completed during such time period and the compensation which is due. All charges based upon hourly rates of services, whether the charges are being billed directly to the Authority or whether they are the basis of invoices from subcontractors for which the Engineer seeks reimbursement from the Authority, shall be accompanied by copies of actual time sheets signed by the person performing the services and countersigned by his/her supervisor certifying that the work performed was authorized by the General Manager. The time sheets shall identify each person performing the services, the date or dates the services were performed, the applicable hourly rates, the total amount billed for each person and the total amount billed for all persons, and shall be accompanied by such other details as may be requested by the Authority for verification purposes. The Engineer shall retain its records and shall keep same available for inspection during regular business hours by Authority officials. The Engineer's statement becomes due and payable within forty-five (45) days after approval by the General Manager unless such statement is rejected for cause and returned to the Engineer. The General Manager shall review the statements and approve them with such modifications, if any, as he/she deems appropriate. Approval or payment of any statement shall not be considered to be evidence of performance by the Engineer or of receipt or acceptance by the Authority of the work covered by such statement. The final statement submitted shall certify that all services to be provided pursuant to this Agreement have been performed. Within



forty-five (45) days after the performance of all services provided for in this Agreement and the acceptance thereof by the Authority, the Authority shall pay to the Engineer the amount of the final statement as approved by the Authority, subject to the limitations of liability set forth herein. The statements submitted by the Engineer to the Authority hereunder shall be limited to the work done and services performed pursuant to this Agreement only. The Engineer shall not include any work or services performed, required to be performed, or billed under or pursuant to any other agreement.

**SECTION VI  
TERMINATION**

Either party may terminate this Agreement at any time by providing notice in writing to the other party. Upon receipt of such notice from the Authority, the Engineer shall discontinue all services in connection with the performance of this Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Agreement to the date of termination. The Authority shall pay the Engineer the prescribed compensation for the services actually performed under this Agreement, less such payments on account of the changes as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Agreement shall be delivered to the Authority when and if this Agreement is terminated.

**SECTION VII  
NOTICE**

Any notice required to be given under the provisions of this Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States post office, addressed to the Authority or the Engineer at the following addresses. If mailed, any notice or communication shall be deemed to be received three (3) days after the date of deposit in the United States mail. Unless otherwise provided in this Agreement, all notices shall be delivered to the following addresses:

To the Engineer:                   ZarinkeK Engineering Services, Inc.  
  3033 Chimney Rock, Suite 630  
  Houston, Texas 77056

Attention:                               Ghi ZarinkeK, P.E.  
  
To the Authority:                   North Harris County Regional Water Authority  
  3648 Cypress Creek Pkwy., Suite 110  
  Houston, Texas 77068

Attention:                               General Manager

Either party may designate a different address by giving the other party ten (10) days' written notice.

#### **SECTION VIII**

#### **SUCCESSORS AND ASSIGNS**

The Authority and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Agreement. Neither the Authority nor the Engineer shall assign, sublet, or transfer its or his/her interest in this Agreement without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

#### **SECTION IX**

#### **PUBLIC CONTACT**

The Engineer shall under no circumstances release any material or information developed in the performance of its services hereunder, without the prior express written permission of the Authority. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the Authority. Inquiries concerning this Agreement or any requested service shall be referred to the General Manager.

#### **SECTION X**

#### **COMPLIANCE AND STANDARDS**

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto, and shall use that degree of care and skill commensurate with the engineering profession to comply with all applicable state, federal and local laws, ordinances, rules and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, he has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the Authority and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

#### **SECTION XI**

#### **LICENSE REQUIREMENTS**

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Agreement.

SECTION XII  
INSURANCE AND INDEMNIFICATION

The Engineer shall secure and maintain insurance sufficient to protect the Engineer from claims under the Worker's Compensation Act, from claims of professional malpractice at least equal to \$1,000,000, from claims for bodily injury or death at least equal to \$1,000,000 per act, omission, or accident (including auto), and from claims for property damage at least equal to \$1,000,000 per act, omission, or accident, which may arise from the performance of his/her services under this Agreement.

The Engineer agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Authority, its officers, directors and employees (collectively, the Authority) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Engineer's negligent performance of professional services under this Agreement and that of its subcontractors or anyone for whom the Engineer is legally liable.

The Authority agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Engineer, its officers, directors, employees and subcontractors (collectively, the Engineer) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Authority's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Authority is legally liable.

Neither the Authority nor the Engineer shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

Nothing herein shall be construed as creating any personal liability on the part of the General Manager or any officer or agent of the Authority.

SECTION XIII  
OWNERSHIP OF PLANS, COPYRIGHT, AND  
OTHER INTELLECTUAL PROPERTY

The Authority shall be the absolute and unqualified owner of any information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any original works of authorship and any material objects in which any such works are embodied, that are prepared pursuant to this Agreement, with the same force and effect as if the Authority prepared the same.

To the extent that the Engineer has retained any rights in any intellectual property related to this Agreement, the Authority shall have, and the Engineer hereby grants, an irrevocable paid-up, royalty-free, non-exclusive perpetual license in and to any and all such intellectual property, and the Engineer hereby grants an irrevocable covenant not to sue the Authority on any such intellectual property rights.

The Engineer agrees that, for the purposes of establishing copyright ownership, all works of authorship prepared pursuant to this Agreement shall be deemed to have been prepared, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent that any such works of authorship prepared pursuant to this Agreement do not constitute "works made for hire" as that term is defined under the applicable copyright law, the Engineer shall irrevocably assign and transfer to the Authority all right, title, and interest in and to the copyrights, and any renewals and/or extensions of the copyrights, for any such works.

The Engineer agrees to execute and deliver all additional documents and instruments, and to perform all additional acts, as may be necessary or appropriate to effectuate, carry out, and perform all of the terms, provisions, and conditions of this Agreement, and all such transactions contemplated hereby, including but not limited to the execution of applications for registration of copyrights, and the execution of recordable assignment documents to effectuate the transfer of ownership of copyrights as contemplated by this Agreement.

The Engineer agrees that, upon request from the Authority, the Engineer shall promptly deliver to the Authority copies, in a form acceptable to the General Manager, of any and all information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Agreement, shall also be delivered by the Engineer to the General Manager when and if this Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

Copies of all complete or partially complete information, programs, Mylar reproducible, plans, preliminary layouts, sketches, reports, cost estimates, software, firmware, designs, computer applications, computations, computer input/output information, and other documents, materials, and/or data, including the source codes thereof, and any material objects embodying any works of authorship, prepared pursuant to this Agreement, shall also be delivered by the Engineer to the General Manager when and if this Agreement is terminated, or upon completion of performance hereunder, whichever occurs first.

The Engineer may retain one (1) set of reproducible copies of such documents, materials and/or data, but such copies shall be for the Engineer's sole use in the preparation of studies or reports for the Authority only. The Engineer is expressly prohibited from using, selling, licensing, or otherwise marketing or donating such documents, materials and/or data, or using same in the preparation of work for any other client without the express written permission of the General Manager. The Engineer does not intend or represent that construction documents, materials, and/or data will be suitable for reuse. If the Authority reuses the same, such action shall be at the Authority's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents, materials, and/or data by virtue of termination under Section VI above, the Engineer shall not be held accountable or responsible for the completeness of any document, material and/or data so produced.

**SECTION XIV  
MODIFICATIONS**

This instrument contains the entire Agreement between the parties related to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

**SECTION XV**

**AUTHORITY OF GENERAL MANAGER**

The General Manager shall decide any and all questions which may arise as to the interpretation of this Agreement and all questions as to the acceptable fulfillment of this Agreement by the Engineer. His/her decision shall be final. It is mutually agreed by both parties that the General Manager shall act as referee in all questions arising under the terms of this Agreement between the parties hereto and that the decisions of the General Manager in such shall be final and binding alike on both parties hereto. But nothing contained in this section shall be construed to authorize the General Manager to alter, vary or amend any of the terms or provisions of this Agreement.

**SECTION XVI**

**SEVERABILITY**

Any provision or part of this Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Authority and the Engineer, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**SECTION XVII**

**MERGER**

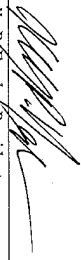
The Parties agree that this Agreement contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Agreement.

[The remainder of this page intentionally left blank.]

SECTION XVIII  
EXECUTION

The Authority executes this Agreement by and through the President and Secretary of the Board of Directors (the "Board") of the Authority, which action has been duly authorized at a meeting of the Board. This Agreement shall not become effective until executed by all parties hereto.

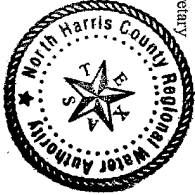
NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

By:   
Kelly P. Fessler, President  
Date Signed: 9-8-14


ATTEST:

By:   
Ron Graham, Secretary

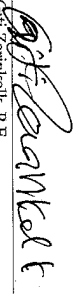
(AUTHORITY SEAL)



APPROVED:

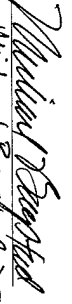
By:   
Jeffrey Schindewolf, P.E.  
General Manager

ZARINKELK ENGINEERING SERVICES, INC.

By:   
Giti Zarrinkelk, P.E.  
President

Date Signed: 9/8/2014

ATTEST:

By:   
Name: Michael Baystaud, P.E.  
Title: Vice President

APPENDIX A

SCOPE OF SERVICES

(Zarinkelt Engineering Services, Inc.)

1. Attend conferences and meetings with General Manager and/or the Program Manager concerning each requested service.
2. Perform engineering/planning assignments as authorized in writing by the General Manager.
3. Assist the General Manager/Program Manager in the collection and/or distribution of data and information from/to utility districts, other well owners and the general public.
4. Perform design services, including the provision of both Basic Engineering Design Services (see Appendix A-1) and related additional services such as surveying, geotechnical, environmental, traffic control plans, etc.
5. Provide surveying services not associated with specific design assignment.
6. Assist the General Manager/Program Manager by providing various information and data relevant to the Authority concerning, but not limited to, such areas as developing water supplies, groundwater reduction strategy, utility district and well owner interconnects, water reuse sources, water district operations, utility district facilities (existing and proposed), etc.
7. Provide printing, reproduction and photographic services related to the provision of engineering services under the Agreement, as authorized by the General Manager.
8. The Engineer shall make requested revisions to documents and materials prepared under this Agreement, and shall provide such engineering services necessary for such revisions, when they are not necessitated by fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the Authority, or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.
9. Provide additional services not mentioned above as directed by the General Manager.



APPENDIX A-1

SAMPLE SCOPE OF BASIC ENGINEERING DESIGN SERVICES

(Name of Project)

The specific Basic Engineering Design Services to be performed will be detailed in the Scope of Services which will accompany each Work Authorization issued by the General Manager. The Scope of Services may include, but not be limited to, the following:

1. Preliminary Engineering Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Attend conferences with the Authority and Program Manager and other parties designated by the General Manager regarding the Project.
  - c. With the Program Manager establish the scope of any soil foundation investigations, environmental investigations, special surveys, test and other items which in the opinion of the Engineer, may be required.
  - d. Coordinate the Project with the Program Manager, as necessary.
  - e. Meet with the utility districts adjacent to the alignment, if any, and their consultants to obtain information required for the system preliminary design. Information required will include all available data as outlined in the "Surface Water Buyer Information Form". From discussions with utility districts and their consultants, determine the alternatives for water take points to be incorporated into the Project.
  - f. Analyze a minimum of two (2) alternate water line alignments considering all relevant factors and prepare schematic layouts for each alternate route. After analysis, present recommended route(s) and obtain a consensus on recommended route.
  - g. Prepare the preliminary engineering report on the Project in sufficient detail to indicate clearly the problems involved and the alternate solutions available to the Authority, including, but not limited to, preliminary layouts, estimate of probable cost, identify easement requirements and set forth clearly the Engineer's recommendations.
  - h. Provide the Authority with draft preliminary engineering report for review. After receiving review comments from the Authority, make necessary revisions and submit five (5) copies of the preliminary engineering report to the Authority, including copies of preliminary layouts, identified easement requirements, identified environmental issues, identified permit requirements and estimates of probable costs.
  - j. Provide input, as necessary, to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts.

2. Design Phase
  - a. Submit to the General Manager within ten (10) days of the Notice to Proceed, the project schedule updated to reflect firm dates for beginning and ending of each activity set forth therein and review dates for such activities.
  - b. Establish the scope of any additional soil and foundation investigations or any special surveys and tests, which, in the opinion of the Engineer, may be required for design. Provide such information to the Program Manager.
  - c. Coordinate the Project with the Program Manager, as necessary.
  - d. Provide input as necessary to facilitate easement acquisition as well as necessary exhibits to facilitate Right-of-Entry Agreements with adjacent utility districts. Modify construction documents, as necessary, to accommodate special provisions resulting from the easement acquisition process.
  - e. Furnish to the Authority, where required by circumstances of the Project, the engineering data necessary for applications for routine permits by local, state, and federal authorities (as distinguished from detailed applications and supporting documents).
  - f. Prepare documents necessary to obtain approval of governmental authorities having jurisdiction over the design or operation of the Project, including all public and private utilities affected by the Project. Obtain the signatures of representatives of such public and private authorities necessary to indicate approval of the Project.
  - g. Provide the Program Manager with the scope of any field surveys required to collect information required for the design of the Project.
  - h. Provide interim review sets of bid documents as called for in the Authority's Design Manual.
  - i. Integrate comments received on review sets.
  - j. Provide detailed technical specifications and contract drawings (construction documents) for the Project based on the Authority's Design Manual.
  - k. Prepare a detailed estimate of probable cost for the Project.
  - l. Furnish the Authority the approved technical specifications, drawings and contract documents, including notices to bidders and proposal forms needed to advertise the Project for bids.
  - m. Submit final design report as defined in the Authority's Design Manual.
3. Construction Phase
  - a. At the request of the Program Manager, participate in pre-bid conferences, pre-construction conferences and construction progress meetings.
  - b. Prepare all construction contract addendums, as required.
  - c. Provide design clarifications and recommendations to assist the Program Manager in resolving field problems relating to construction.
  - d. Review and take appropriate action upon shop drawings being furnished by the construction contractor and submitted to the Engineer by the Program Manager. The Engineer shall determine if shop drawings, samples and other submittals are in general conformance with the requirements of the contract documents. The Engineer shall notify the Program Manager of any non-conformance issues.

- associated with such submittals within fourteen (14) calendar days of receipt of submittals from the Program Manager.
- e. Prepare revisions to the contract documents (i.e., change orders) at no charge to the Authority when such change orders are required to make clarifications, correct discrepancies, errors or omissions to the contract documents.
  - f. When requested by the Program Manager, evaluate contractor changes and cost proposals and recommend action to the Program Manager.
  - g. Make monthly site visits to the Project site to observe the progress and quality of the executed work. Such site visits are to be coordinated with the Program Manager and a site visit report shall be submitted to the Program Manager after each such site visit, indicating observations related to the executed work.
  - h. Attend final Project walkthrough.
  - i. Prepare "record drawings" indicating changes to the contract drawings and showing significant changes made to the work during the construction of the Project. Such changes will be based upon marked-up "record drawings" furnished to the Engineer by the Program Manager and the construction contractor.

APPENDIX B  
HOURLY BILLING RATES  
Zarinkeik Engineering Services, Inc.

<u>Classification</u>	<u>Hourly Rates</u>
Principal	\$250
Project Manager	\$220
Senior/Civil/Project Engineer	\$195
Lead Designer	\$150
Cadd Operator/Tech Support	\$93
Junior Cadd/BIT	\$75
Admin	\$66
Inspector	\$105

- Notes: (1) Additional classifications and subsequent year rates must be approved in writing by the General Manager.
- (2) Subconsultant costs and other miscellaneous expenses as approved by the General Manager will be paid at cost plus 10%

APPENDIX C  
CITY OF HOUSTON CURVES FOR MEDIAN COMPENSATION  
(Zarinkelt Engineering Services, Inc.)

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**CITY OF HOUSTON**  
Public Works and Engineering  
Department

Lee P. Brown

Mayor

Jon C. Vanden Bosch, P.E.  
Director  
Public Works & Engineering  
Department  
P.O. Box 1582  
Houston, Texas 77251-1582  
T. 713.837.0037  
F. 713.837.0040  
jvandenbosch@houston.gov

July 15, 2002

Christina M. Lindsay, Executive Director  
Houston - CEC  
2020 North Loop West, Suite 240  
Houston, Texas 77018

Dear Ms. Lindsay:

PW&E has adopted the revised Curves of Meritian Compensation attached hereto. These curves and/or the associated tables will be used for determining the engineering fees as appropriate in this Department until further notice.

Sincerely,

Jon C. Vanden Bosch, P.E.  
Director  
Department of Public Works and Engineering

CC: Showit Nandagiri, P.E.

Jeff Taylor

Eric Dargatz

Rick Vacar - Aviation Department

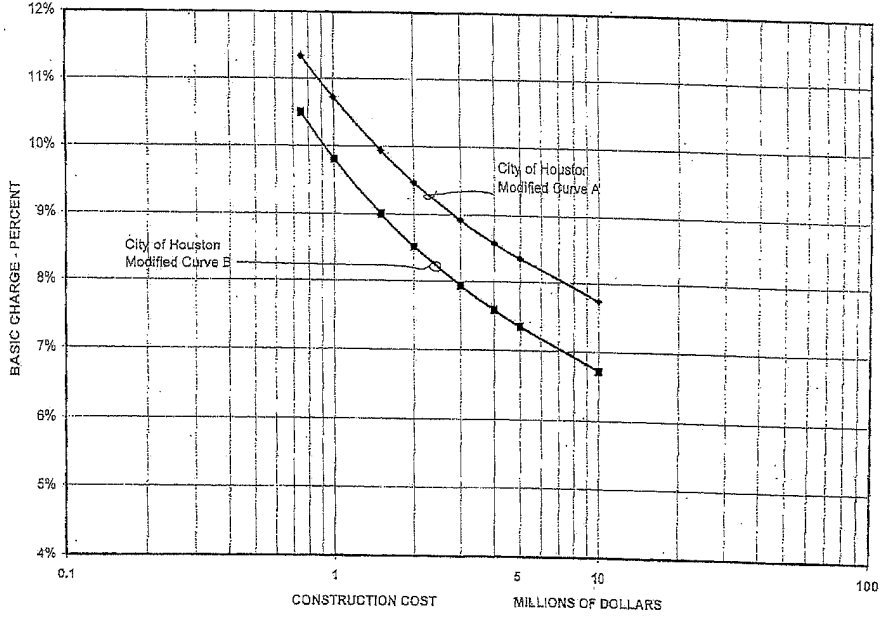
Monique Michiba - Building Services Department

Council Members: Bruce T. Rife Carol M. Galloway Mark Golding Alan Edwards Adria Wisceman Mark A. Ellis Gary Keller Gabriel Vasquez Carol Alvarez  
Anissa D. Pirkkan Gordon Cain Sammy Sanchez-Jones M.D. Michael Stry Carol G. Robinson  
Commissioner: Sylvia K. Garcia

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
Curves of Median Compensation  
Curves A and B

*Showri Nandagiri*  
Showri Nandagiri, P.E.  
Deputy Director

*Jon C. Vanden Bosch*  
Jon C. Vanden Bosch, P.E.  
Director



MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
0.750	11.347%	\$85,099.31	0.750	10.489%	\$78,668.84
0.775	11.270%	\$87,399.27	0.775	10.407%	\$80,665.49
0.800	11.196%	\$89,999.35	0.800	10.329%	\$82,662.09
0.825	11.126%	\$91,789.97	0.825	10.254%	\$84,598.09
0.850	11.059%	\$94,001.94	0.850	10.183%	\$86,595.86
0.875	10.995%	\$96,204.43	0.875	10.116%	\$88,605.86
0.900	10.933%	\$98,398.99	0.900	10.050%	\$90,446.37
0.925	10.874%	\$100,686.53	0.925	9.987%	\$92,378.74
0.950	10.817%	\$102,764.36	0.950	9.927%	\$94,303.28
0.975	10.763%	\$104,936.76	0.975	9.869%	\$96,220.27
1.000	10.710%	\$107,100.00	1.000	9.813%	\$98,130.00
1.025	10.659%	\$109,267.33	1.025	9.759%	\$100,032.71
1.050	10.610%	\$111,407.98	1.050	9.707%	\$101,928.64
1.075	10.563%	\$113,562.17	1.075	9.657%	\$103,818.01
1.100	10.517%	\$115,690.11	1.100	9.609%	\$105,701.05
1.125	10.473%	\$117,822.01	1.125	9.562%	\$107,577.96
1.150	10.430%	\$119,948.05	1.150	9.517%	\$109,448.91
1.175	10.389%	\$122,068.40	1.175	9.474%	\$111,314.10
1.200	10.349%	\$124,183.25	1.200	9.431%	\$113,173.70
1.225	10.310%	\$126,292.73	1.225	9.390%	\$115,027.86
1.250	10.272%	\$128,397.02	1.250	9.350%	\$116,876.75
1.275	10.236%	\$130,496.25	1.275	9.311%	\$118,720.52
1.300	10.199%	\$132,590.56	1.300	9.274%	\$120,559.29
1.325	10.165%	\$134,680.08	1.325	9.237%	\$122,393.22
1.350	10.131%	\$136,764.95	1.350	9.202%	\$124,222.42
1.375	10.098%	\$138,845.28	1.375	9.167%	\$126,047.02
1.400	10.065%	\$140,921.18	1.400	9.133%	\$127,867.13
1.425	10.034%	\$142,992.77	1.425	9.101%	\$129,682.47
1.450	10.004%	\$144,060.15	1.450	9.069%	\$131,494.36
1.475	9.974%	\$144,723.43	1.475	9.037%	\$133,301.86
1.500	9.946%	\$145,182.70	1.500	9.007%	\$135,104.92
1.525	9.917%	\$145,238.05	1.525	8.977%	\$136,904.20
1.550	9.890%	\$145,328.58	1.550	8.948%	\$138,699.61
1.575	9.863%	\$145,337.36	1.575	8.920%	\$140,491.22
1.600	9.839%	\$145,381.49	1.600	8.892%	\$142,279.13
1.625	9.811%	\$145,469.06	1.625	8.865%	\$144,064.16
1.650	9.785%	\$145,492.73	1.650	8.839%	\$145,844.16
1.675	9.761%	\$145,523.00	1.675	8.813%	\$147,621.43
1.700	9.739%	\$145,549.99	1.700	8.788%	\$149,395.31
1.725	9.718%	\$145,573.76	1.725	8.763%	\$151,165.85
1.750	9.699%	\$145,594.37	1.750	8.739%	\$152,933.14
1.775	9.687%	\$145,611.90	1.775	8.715%	\$154,697.23
1.800	9.645%	\$145,628.39	1.800	8.692%	\$156,458.18
1.825	9.623%	\$145,637.90	1.825	8.669%	\$158,216.07
1.850	9.602%	\$145,646.50	1.850	8.647%	\$159,970.95
1.875	9.581%	\$145,652.24	1.875	8.625%	\$161,722.87
1.900	9.561%	\$145,652.24	1.900	8.604%	\$163,471.88

MODIFIED CURVE B



6/25/2002

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
1.925	9.541%	\$183,655.17	1.925	8.583%	\$166,218.06
1.960	8.521%	\$193,933.33	1.960	8.562%	\$166,861.44
1.975	8.501%	\$187,652.79	1.975	8.542%	\$168,702.07
2.000	9.482%	\$189,647.88	2.000	8.522%	\$170,440.01
2.025	9.464%	\$191,639.76	2.025	8.502%	\$172,176.90
2.050	9.446%	\$193,629.37	2.050	8.483%	\$173,907.89
2.075	9.427%	\$195,618.46	2.075	8.464%	\$175,638.12
2.100	9.410%	\$197,601.06	2.100	8.446%	\$177,365.74
2.125	9.392%	\$199,583.21	2.125	8.428%	\$179,080.89
2.150	9.375%	\$201,562.97	2.150	8.410%	\$180,813.80
2.175	9.358%	\$203,540.36	2.175	8.392%	\$182,553.92
2.200	9.342%	\$205,515.43	2.200	8.375%	\$184,291.88
2.225	9.325%	\$207,488.21	2.225	8.358%	\$185,997.54
2.250	9.309%	\$209,458.74	2.250	8.341%	\$187,680.91
2.275	9.293%	\$211,427.05	2.275	8.325%	\$189,392.03
2.300	9.278%	\$213,393.18	2.300	8.309%	\$191,100.95
2.325	9.263%	\$215,357.16	2.325	8.293%	\$192,807.70
2.350	9.248%	\$217,319.03	2.350	8.277%	\$194,512.30
2.375	9.233%	\$219,278.81	2.375	8.262%	\$196,214.78
2.400	9.218%	\$221,236.53	2.400	8.246%	\$197,915.19
2.425	9.204%	\$223,192.23	2.425	8.231%	\$199,613.55
2.450	9.190%	\$225,145.94	2.450	8.217%	\$201,308.90
2.475	9.176%	\$227,097.68	2.475	8.202%	\$203,004.25
2.500	9.162%	\$229,047.48	2.500	8.188%	\$204,696.63
2.525	9.148%	\$230,995.37	2.525	8.174%	\$206,387.09
2.550	9.135%	\$232,941.37	2.550	8.160%	\$208,075.63
2.575	9.122%	\$234,885.52	2.575	8.146%	\$209,762.30
2.600	9.110%	\$236,827.83	2.600	8.133%	\$211,447.10
2.625	9.098%	\$238,768.33	2.625	8.119%	\$213,130.00
2.650	9.086%	\$240,707.05	2.650	8.106%	\$214,811.25
2.675	9.074%	\$242,644.01	2.675	8.093%	\$216,490.64
2.700	9.063%	\$244,579.23	2.700	8.080%	\$218,168.27
2.725	9.051%	\$246,512.73	2.725	8.068%	\$219,844.16
2.750	9.039%	\$248,444.54	2.750	8.056%	\$221,518.34
2.775	9.027%	\$250,374.08	2.775	8.045%	\$223,190.83
2.800	9.015%	\$252,302.17	2.800	8.034%	\$224,861.65
2.825	8.999%	\$254,230.02	2.825	8.019%	\$226,530.82
2.850	8.986%	\$256,155.27	2.850	8.007%	\$228,198.35
2.875	8.977%	\$258,078.93	2.875	7.996%	\$229,864.28
2.900	8.966%	\$260,001.02	2.900	7.984%	\$231,528.63
2.925	8.956%	\$261,921.56	2.925	7.972%	\$233,191.40
2.950	8.944%	\$263,840.67	2.950	7.961%	\$234,852.62
2.975	8.933%	\$265,758.06	2.975	7.950%	\$236,512.30
3.000	8.922%	\$267,674.05	3.000	7.939%	\$238,170.48
3.025	8.912%	\$269,588.57	3.025	7.928%	\$239,827.15
3.050	8.902%	\$271,501.62	3.050	7.917%	\$241,482.35
3.075	8.891%	\$273,413.23	3.075	7.907%	\$243,136.08

6/25/2002

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
3.100	8.881%	\$276,323.41	3.100	7.866%	\$244,798.37
3.125	8.871%	\$277,232.18	3.125	7.865%	\$246,430.23
3.150	8.862%	\$279,139.55	3.150	7.875%	\$248,088.69
3.175	8.852%	\$281,045.54	3.175	7.869%	\$249,786.73
3.200	8.842%	\$282,950.17	3.200	7.868%	\$251,583.40
3.225	8.833%	\$284,853.44	3.225	7.849%	\$253,428.70
3.250	8.823%	\$286,755.38	3.250	7.839%	\$255,318.25
3.275	8.814%	\$288,656.00	3.275	7.829%	\$257,248.55
3.300	8.805%	\$290,556.31	3.300	7.817%	\$259,218.53
3.325	8.796%	\$292,456.33	3.325	7.807%	\$261,235.21
3.350	8.787%	\$294,356.07	3.350	7.798%	\$263,297.82
3.375	8.778%	\$296,255.55	3.375	7.789%	\$265,408.75
3.400	8.769%	\$298,154.77	3.400	7.780%	\$267,568.64
3.425	8.760%	\$300,053.75	3.425	7.771%	\$269,768.28
3.450	8.751%	\$301,952.50	3.450	7.762%	\$271,998.09
3.475	8.743%	\$303,851.04	3.475	7.753%	\$274,258.48
3.500	8.734%	\$305,749.38	3.500	7.744%	\$276,548.88
3.525	8.726%	\$307,647.53	3.525	7.735%	\$278,868.67
3.550	8.718%	\$309,545.50	3.550	7.727%	\$281,218.29
3.575	8.710%	\$311,443.30	3.575	7.718%	\$283,598.14
3.600	8.701%	\$313,340.95	3.600	7.710%	\$286,007.66
3.625	8.693%	\$315,238.45	3.625	7.701%	\$288,447.38
3.650	8.685%	\$317,135.82	3.650	7.693%	\$290,917.81
3.675	8.677%	\$318,997.07	3.675	7.685%	\$293,418.49
3.700	8.670%	\$320,777.21	3.700	7.677%	\$295,949.84
3.725	8.662%	\$322,556.25	3.725	7.669%	\$298,511.36
3.750	8.654%	\$324,334.20	3.750	7.661%	\$301,103.51
3.775	8.647%	\$326,111.07	3.775	7.653%	\$303,726.70
3.800	8.639%	\$327,886.87	3.800	7.645%	\$306,381.49
3.825	8.632%	\$329,661.61	3.825	7.638%	\$309,067.36
3.850	8.624%	\$331,436.30	3.850	7.630%	\$311,793.83
3.875	8.617%	\$333,209.95	3.875	7.622%	\$314,551.46
3.900	8.610%	\$334,982.57	3.900	7.615%	\$317,340.73
3.925	8.603%	\$336,755.17	3.925	7.608%	\$320,161.16
3.950	8.596%	\$338,526.75	3.950	7.600%	\$323,013.23
3.975	8.589%	\$340,298.33	3.975	7.593%	\$325,896.45
4.000	8.581%	\$342,069.92	4.000	7.586%	\$328,811.31
4.025	8.574%	\$343,841.52	4.025	7.579%	\$331,757.26
4.050	8.568%	\$345,613.15	4.050	7.571%	\$334,733.85
4.075	8.561%	\$347,384.81	4.075	7.564%	\$337,741.54
4.100	8.554%	\$349,156.50	4.100	7.557%	\$340,780.80
4.125	8.547%	\$350,928.25	4.125	7.550%	\$343,851.17
4.150	8.541%	\$352,700.05	4.150	7.544%	\$346,953.05
4.175	8.534%	\$354,471.91	4.175	7.537%	\$350,085.99
4.200	8.528%	\$356,243.85	4.200	7.530%	\$353,249.54
4.225	8.521%	\$358,015.87	4.225	7.523%	\$356,444.19
4.250	8.515%	\$361,878.98	4.250	7.517%	\$359,669.48

MODIFIED CURVE B

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent
4.275	8.508%	\$363,706.18	4.275	7.510%	\$321,063.75	4.275	7.510%
4.300	8.502%	\$385,692.48	4.300	7.504%	\$321,681.51	4.300	7.504%
4.325	8.495%	\$387,447.80	4.325	7.497%	\$324,258.37	4.325	7.497%
4.350	8.489%	\$368,302.43	4.350	7.491%	\$325,854.33	4.350	7.491%
4.375	8.484%	\$371,166.09	4.375	7.485%	\$327,449.41	4.375	7.485%
4.400	8.477%	\$373,008.89	4.400	7.478%	\$328,043.61	4.400	7.478%
4.425	8.471%	\$374,860.80	4.425	7.472%	\$330,696.04	4.425	7.472%
4.450	8.465%	\$376,711.88	4.450	7.466%	\$332,229.41	4.450	7.466%
4.475	8.458%	\$378,562.10	4.475	7.460%	\$333,821.01	4.475	7.460%
4.500	8.454%	\$380,411.49	4.500	7.454%	\$335,411.77	4.500	7.454%
4.525	8.448%	\$382,260.04	4.525	7.448%	\$337,001.69	4.525	7.448%
4.550	8.442%	\$384,107.78	4.550	7.442%	\$338,600.75	4.550	7.442%
4.575	8.438%	\$386,954.66	4.575	7.436%	\$340,178.99	4.575	7.436%
4.600	8.430%	\$387,800.75	4.600	7.430%	\$341,768.41	4.600	7.430%
4.625	8.428%	\$389,646.03	4.625	7.424%	\$343,353.00	4.625	7.424%
4.650	8.419%	\$391,490.50	4.650	7.418%	\$344,938.79	4.650	7.418%
4.675	8.414%	\$393,334.18	4.675	7.412%	\$346,523.77	4.675	7.412%
4.700	8.408%	\$395,177.07	4.700	7.407%	\$348,107.94	4.700	7.407%
4.725	8.397%	\$397,019.17	4.725	7.401%	\$349,691.33	4.725	7.401%
4.750	8.392%	\$398,860.50	4.750	7.395%	\$351,273.92	4.750	7.395%
4.775	8.386%	\$400,701.05	4.775	7.390%	\$352,855.74	4.775	7.390%
4.800	8.381%	\$402,540.83	4.800	7.384%	\$354,436.77	4.800	7.384%
4.825	8.376%	\$404,379.86	4.825	7.378%	\$356,017.04	4.825	7.378%
4.850	8.370%	\$406,218.13	4.850	7.373%	\$357,596.54	4.850	7.373%
4.875	8.365%	\$408,056.64	4.875	7.368%	\$359,173.28	4.875	7.368%
4.900	8.360%	\$409,892.42	4.900	7.362%	\$360,750.26	4.900	7.362%
4.925	8.353%	\$411,728.45	4.925	7.356%	\$362,330.50	4.925	7.356%
4.950	8.350%	\$413,563.75	4.950	7.350%	\$363,903.99	4.950	7.350%
4.975	8.340%	\$415,398.02	4.975	7.344%	\$365,482.75	4.975	7.344%
5.000	8.340%	\$417,232.17	5.000	7.338%	\$367,067.77	5.000	7.338%
5.025	8.335%	\$419,065.29	5.025	7.331%	\$368,652.07	5.025	7.331%
5.050	8.330%	\$420,897.71	5.050	7.326%	\$370,236.64	5.050	7.326%
5.075	8.328%	\$422,729.42	5.075	7.321%	\$371,778.50	5.075	7.321%
5.100	8.320%	\$426,390.72	5.100	7.316%	\$373,360.84	5.100	7.316%
5.125	8.315%	\$428,220.33	5.125	7.311%	\$374,922.07	5.125	7.311%
5.150	8.310%	\$430,049.25	5.150	7.306%	\$376,462.81	5.150	7.306%
5.175	8.305%	\$431,877.49	5.175	7.301%	\$377,982.84	5.175	7.301%
5.200	8.301%	\$433,705.05	5.200	7.296%	\$379,502.18	5.200	7.296%
5.225	8.296%	\$435,531.93	5.225	7.291%	\$381,020.83	5.225	7.291%
5.250	8.291%	\$437,358.14	5.250	7.285%	\$382,538.09	5.250	7.285%
5.275	8.286%	\$439,183.69	5.275	7.281%	\$384,053.71	5.275	7.281%
5.300	8.282%	\$441,008.57	5.300	7.276%	\$385,568.66	5.300	7.276%
5.325	8.277%	\$442,832.80	5.325	7.272%	\$387,083.94	5.325	7.272%
5.350	8.273%	\$444,656.37	5.350	7.267%	\$388,598.56	5.350	7.267%
5.375	8.268%	\$446,479.30	5.375	7.262%	\$390,112.52	5.375	7.262%
5.400	8.264%	\$448,301.58	5.400	7.258%	\$391,625.83	5.400	7.258%

6/25/2002

MODIFIED CURVE A

Cost of Construction in Millions	Percent	Fee
5.480	8.258%	\$450,123,222
5.475	8.255%	\$451,944,222
5.500	8.250%	\$453,764,600
5.525	8.248%	\$455,584,344
5.550	8.242%	\$457,403,447
5.575	8.237%	\$459,221,977
5.600	8.233%	\$461,039,966
5.625	8.229%	\$462,857,713
5.650	8.224%	\$464,673,100
5.675	8.220%	\$466,489,088
5.700	8.216%	\$468,305,533
5.725	8.212%	\$470,120,119
5.750	8.208%	\$471,934,447
5.775	8.203%	\$473,748,165
5.800	8.199%	\$475,561,255
5.825	8.195%	\$477,373,777
5.850	8.191%	\$479,185,711
5.875	8.187%	\$480,997,077
5.900	8.183%	\$482,807,866
5.925	8.179%	\$484,618,009
5.950	8.175%	\$486,427,715
5.975	8.171%	\$488,236,885
6.000	8.167%	\$490,045,339
6.025	8.164%	\$491,853,377
6.050	8.160%	\$493,660,811
6.075	8.156%	\$495,467,699
6.100	8.152%	\$497,274,044
6.125	8.148%	\$499,079,844
6.150	8.144%	\$500,885,100
6.175	8.141%	\$502,689,822
6.200	8.137%	\$504,494,022
6.225	8.133%	\$506,297,688
6.250	8.130%	\$508,100,888
6.275	8.126%	\$509,903,444
6.300	8.122%	\$511,705,533
6.325	8.119%	\$513,507,111
6.350	8.115%	\$515,308,177
6.375	8.112%	\$517,108,722
6.400	8.108%	\$518,908,777
6.425	8.104%	\$520,708,300
6.450	8.101%	\$522,507,344
6.475	8.097%	\$524,305,877
6.500	8.094%	\$526,103,911
6.525	8.090%	\$527,901,466
6.550	8.087%	\$529,698,500
6.575	8.084%	\$531,495,066
6.600	8.080%	\$533,291,133

MODIFIED CURVE B

Cost of Construction in Millions	Percent	Fee
5.450	7.253%	\$395,288,449
5.475	7.248%	\$398,390,511
5.500	7.244%	\$398,411,888
5.525	7.239%	\$399,972,659
5.550	7.235%	\$401,532,724
5.575	7.230%	\$403,092,222
5.600	7.226%	\$404,651,088
5.625	7.221%	\$406,209,322
5.650	7.217%	\$407,766,944
5.675	7.213%	\$409,323,955
5.700	7.208%	\$410,880,355
5.725	7.204%	\$412,436,155
5.750	7.200%	\$413,991,355
5.775	7.196%	\$415,545,955
5.800	7.191%	\$417,099,966
5.825	7.187%	\$418,653,333
5.850	7.183%	\$420,205,277
5.875	7.179%	\$421,758,466
5.900	7.175%	\$423,310,133
5.925	7.171%	\$424,861,233
5.950	7.167%	\$426,411,715
5.975	7.163%	\$427,961,711
6.000	7.159%	\$429,511,100
6.025	7.155%	\$431,059,922
6.050	7.151%	\$432,608,199
6.075	7.147%	\$434,155,911
6.100	7.143%	\$435,703,077
6.125	7.139%	\$437,249,688
6.150	7.135%	\$438,795,755
6.175	7.131%	\$440,341,277
6.200	7.127%	\$441,886,255
6.225	7.123%	\$443,430,700
6.250	7.120%	\$444,974,622
6.275	7.116%	\$446,518,000
6.300	7.112%	\$448,060,866
6.325	7.109%	\$449,603,200
6.350	7.105%	\$451,145,011
6.375	7.101%	\$452,686,300
6.400	7.097%	\$454,227,088
6.425	7.094%	\$455,767,344
6.450	7.090%	\$457,307,100
6.475	7.086%	\$458,846,355
6.500	7.083%	\$460,385,022
6.525	7.079%	\$461,923,333
6.550	7.076%	\$463,461,000
6.575	7.072%	\$465,000,322
6.600	7.069%	\$466,538,088

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee
6.625	8.077%	\$535,006.72
6.650	8.073%	\$536,891.83
6.675	8.070%	\$538,676.45
6.700	8.067%	\$540,470.61
6.725	8.063%	\$542,264.28
6.750	8.060%	\$544,057.49
6.775	8.057%	\$545,850.23
6.800	8.054%	\$547,642.50
6.825	8.050%	\$549,434.31
6.850	8.047%	\$551,225.55
6.875	8.044%	\$553,016.54
6.900	8.041%	\$554,806.97
6.925	8.038%	\$556,596.95
6.950	8.034%	\$558,386.47
6.975	8.031%	\$560,175.55
7.000	8.028%	\$561,964.17
7.025	8.025%	\$563,752.35
7.050	8.022%	\$565,540.09
7.075	8.019%	\$567,327.39
7.100	8.016%	\$569,114.25
7.125	8.013%	\$570,901.57
7.150	8.010%	\$572,688.86
7.175	8.007%	\$574,472.22
7.200	8.004%	\$576,257.35
7.225	8.001%	\$578,042.06
7.250	7.998%	\$579,826.32
7.275	7.995%	\$581,610.19
7.300	7.992%	\$583,393.61
7.325	7.989%	\$585,176.52
7.350	7.986%	\$586,959.21
7.375	7.983%	\$588,741.39
7.400	7.980%	\$590,523.15
7.425	7.977%	\$592,304.51
7.450	7.974%	\$594,085.46
7.475	7.971%	\$595,865.99
7.500	7.969%	\$597,646.12
7.525	7.966%	\$599,425.85
7.550	7.963%	\$601,205.18
7.575	7.960%	\$602,984.11
7.600	7.957%	\$604,762.64
7.625	7.955%	\$606,540.78
7.650	7.952%	\$608,318.52
7.675	7.949%	\$610,095.87
7.700	7.946%	\$611,872.83
7.725	7.944%	\$613,649.40
7.750	7.941%	\$615,425.58
7.775	7.938%	\$617,201.36

MODIFIED CURVE B

Cost of Construction In Millions	Percent	Fee
6.625	7.065%	\$468,071.34
6.650	7.062%	\$469,607.12
6.675	7.058%	\$471,142.41
6.700	7.055%	\$472,677.21
6.725	7.051%	\$474,211.54
6.750	7.048%	\$475,745.90
6.775	7.045%	\$477,278.70
6.800	7.041%	\$478,811.66
6.825	7.038%	\$480,344.09
6.850	7.035%	\$481,876.05
6.875	7.031%	\$483,407.55
6.900	7.028%	\$484,938.59
6.925	7.025%	\$486,469.15
6.950	7.022%	\$487,999.27
6.975	7.018%	\$489,528.93
7.000	7.015%	\$491,058.13
7.025	7.012%	\$492,586.99
7.050	7.009%	\$494,115.19
7.075	7.006%	\$495,643.04
7.100	7.003%	\$497,170.46
7.125	6.999%	\$498,697.43
7.150	6.996%	\$500,223.96
7.175	6.993%	\$501,750.05
7.200	6.990%	\$503,275.71
7.225	6.987%	\$504,800.93
7.250	6.984%	\$506,325.72
7.275	6.981%	\$507,850.08
7.300	6.978%	\$509,374.02
7.325	6.975%	\$510,897.53
7.350	6.972%	\$512,420.61
7.375	6.969%	\$513,943.28
7.400	6.966%	\$515,465.58
7.425	6.963%	\$516,987.36
7.450	6.960%	\$518,508.77
7.475	6.957%	\$520,029.77
7.500	6.954%	\$521,550.36
7.525	6.951%	\$523,070.54
7.550	6.948%	\$524,590.32
7.575	6.945%	\$526,109.65
7.600	6.942%	\$527,628.65
7.625	6.940%	\$529,147.21
7.650	6.937%	\$530,665.39
7.675	6.934%	\$532,183.14
7.700	6.931%	\$533,700.52
7.725	6.928%	\$535,217.49
7.750	6.925%	\$536,734.08
7.775	6.923%	\$538,250.27

6/25/2002

MODIFIED CURVE A

Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee
7.800	7.938%	\$618,976.80	7.800	6.920%	\$339,766.08
7.825	7.933%	\$620,751.83	7.825	6.917%	\$341,281.49
7.850	7.930%	\$622,526.49	7.850	6.916%	\$342,796.53
7.875	7.928%	\$624,300.76	7.875	6.912%	\$344,311.18
7.900	7.925%	\$626,074.66	7.900	6.909%	\$345,825.45
7.925	7.922%	\$627,848.19	7.925	6.906%	\$347,339.33
7.950	7.920%	\$629,621.35	7.950	6.904%	\$348,852.84
7.975	7.917%	\$631,394.13	7.975	6.901%	\$350,365.98
8.000	7.915%	\$633,166.94	8.000	6.898%	\$351,878.74
8.025	7.912%	\$634,938.99	8.025	6.895%	\$353,391.12
8.050	7.909%	\$636,710.27	8.050	6.893%	\$354,903.14
8.075	7.907%	\$638,481.88	8.075	6.891%	\$356,414.78
8.100	7.904%	\$640,253.94	8.100	6.889%	\$357,926.06
8.125	7.902%	\$642,026.13	8.125	6.885%	\$359,436.97
8.150	7.899%	\$643,798.36	8.150	6.883%	\$360,947.51
8.175	7.897%	\$645,570.23	8.175	6.880%	\$362,457.69
8.200	7.894%	\$647,342.75	8.200	6.878%	\$363,967.51
8.225	7.892%	\$649,114.91	8.225	6.875%	\$365,476.97
8.250	7.889%	\$650,887.12	8.250	6.873%	\$366,986.07
8.275	7.887%	\$652,659.16	8.275	6.870%	\$368,494.82
8.300	7.884%	\$654,431.23	8.300	6.869%	\$369,999.20
8.325	7.882%	\$656,203.46	8.325	6.865%	\$371,511.24
8.350	7.880%	\$657,975.32	8.350	6.863%	\$373,021.92
8.375	7.877%	\$659,747.46	8.375	6.860%	\$374,532.25
8.400	7.875%	\$661,519.24	8.400	6.858%	\$376,042.23
8.425	7.872%	\$663,291.62	8.425	6.855%	\$377,551.86
8.450	7.870%	\$665,063.66	8.450	6.853%	\$379,061.15
8.475	7.868%	\$666,835.71	8.475	6.850%	\$380,570.09
8.500	7.865%	\$668,607.33	8.500	6.848%	\$382,079.68
8.525	7.863%	\$670,379.42	8.525	6.846%	\$383,588.94
8.550	7.861%	\$672,151.77	8.550	6.843%	\$385,097.86
8.575	7.859%	\$673,924.42	8.575	6.840%	\$386,606.43
8.600	7.857%	\$675,697.19	8.600	6.838%	\$388,114.67
8.625	7.853%	\$677,469.47	8.625	6.836%	\$389,622.57
8.650	7.851%	\$679,241.83	8.650	6.833%	\$391,130.14
8.675	7.849%	\$681,014.38	8.675	6.831%	\$392,637.37
8.700	7.847%	\$682,786.96	8.700	6.829%	\$394,144.27
8.725	7.844%	\$684,559.56	8.725	6.826%	\$395,650.84
8.750	7.842%	\$686,332.13	8.750	6.824%	\$397,157.07
8.775	7.840%	\$688,104.71	8.775	6.822%	\$398,662.98
8.800	7.837%	\$689,877.11	8.800	6.819%	\$399,168.57
8.825	7.835%	\$691,649.20	8.825	6.817%	\$400,673.83
8.850	7.833%	\$693,421.36	8.850	6.815%	\$402,178.76
8.875	7.831%	\$695,193.41	8.875	6.812%	\$403,683.37
8.900	7.829%	\$696,965.44	8.900	6.810%	\$405,187.66
8.925	7.826%	\$698,737.35	8.925	6.808%	\$406,691.63
8.950	7.824%	\$700,509.85	8.950	6.806%	\$408,195.28

MODIFIED CURVE B

MODIFIED CURVE A				MODIFIED CURVE B			
Cost of Construction In Millions	Percent	Fee	Cost of Construction In Millions	Percent	Fee		
8.976	7.822%	\$702,019.04	8.976	6.803%	\$610,600.61		
9.000	7.820%	\$703,777.91	9.000	6.801%	\$612,089.62		
9.025	7.816%	\$705,536.48	9.025	6.799%	\$613,598.32		
9.050	7.813%	\$707,294.73	9.050	6.797%	\$615,098.71		
9.075	7.813%	\$709,052.68	9.075	6.794%	\$616,594.78		
9.100	7.811%	\$710,810.22	9.100	6.792%	\$618,092.54		
9.125	7.809%	\$712,567.65	9.125	6.790%	\$619,589.99		
9.150	7.807%	\$714,324.69	9.150	6.789%	\$621,087.13		
9.175	7.805%	\$716,081.41	9.175	6.789%	\$622,583.97		
9.200	7.803%	\$717,837.84	9.200	6.789%	\$624,080.49		
9.225	7.800%	\$719,593.96	9.225	6.788%	\$625,576.71		
9.250	7.798%	\$721,349.79	9.250	6.787%	\$627,072.63		
9.275	7.796%	\$723,105.31	9.275	6.777%	\$628,568.24		
9.300	7.794%	\$724,860.54	9.300	6.775%	\$630,063.56		
9.325	7.792%	\$726,615.47	9.325	6.773%	\$631,558.28		
9.350	7.790%	\$728,370.11	9.350	6.771%	\$633,053.28		
9.375	7.788%	\$730,124.45	9.375	6.768%	\$634,547.68		
9.400	7.786%	\$731,878.50	9.400	6.766%	\$636,041.80		
9.425	7.784%	\$733,632.26	9.425	6.764%	\$637,535.62		
9.450	7.782%	\$735,385.73	9.450	6.762%	\$639,029.17		
9.475	7.780%	\$737,138.91	9.475	6.760%	\$640,522.37		
9.500	7.778%	\$738,891.80	9.500	6.758%	\$642,015.31		
9.525	7.776%	\$740,644.41	9.525	6.756%	\$643,507.95		
9.550	7.774%	\$742,396.72	9.550	6.754%	\$645,000.31		
9.575	7.772%	\$744,148.78	9.575	6.752%	\$646,492.37		
9.600	7.770%	\$745,900.50	9.600	6.750%	\$647,984.15		
9.625	7.768%	\$747,651.97	9.625	6.748%	\$649,475.63		
9.650	7.766%	\$749,403.15	9.650	6.746%	\$650,966.84		
9.675	7.764%	\$751,154.06	9.675	6.744%	\$652,457.75		
9.700	7.762%	\$752,904.68	9.700	6.742%	\$653,948.38		
9.725	7.760%	\$754,655.02	9.725	6.740%	\$655,438.73		
9.750	7.759%	\$756,405.08	9.750	6.738%	\$656,928.90		
9.775	7.758%	\$758,154.88	9.775	6.736%	\$658,418.68		
9.800	7.754%	\$760,904.39	9.800	6.734%	\$659,908.09		
9.825	7.752%	\$763,653.63	9.825	6.732%	\$661,397.31		
9.850	7.749%	\$766,402.60	9.850	6.730%	\$662,886.26		
9.875	7.748%	\$769,151.29	9.875	6.728%	\$664,374.33		
9.900	7.746%	\$768,899.71	9.900	6.726%	\$665,863.33		
9.925	7.745%	\$768,647.86	9.925	6.724%	\$667,351.45		
9.950	7.743%	\$770,395.74	9.950	6.722%	\$668,839.29		
9.975	7.741%	\$772,143.36	9.975	6.720%	\$670,328.86		
10.000	7.739%	\$773,890.70	10.000	6.718%	\$671,814.16		

Project Schedule for NHCRWA Transmission Line (Second Source Line):

a) Requested loan closing date.

12/09/2016

b) Estimated date to submit environmental planning documents.

See City of Houston Application

c) Estimated date to submit engineering planning documents.

See City of Houston Application

d) Estimated date for completion of design.

See City of Houston Application

e) Estimated Construction start date for first contract.

See City of Houston Application

f) Estimated Construction end date for last contract.

See City of Houston Application



Provide any current bond ratings with date received.

	Standard & Poor's	Date Received	Moody's	Date Received	Fitch	Date Received
G.O.						
Revenue	AA-	10/16/2014	A1	10/16/2014		