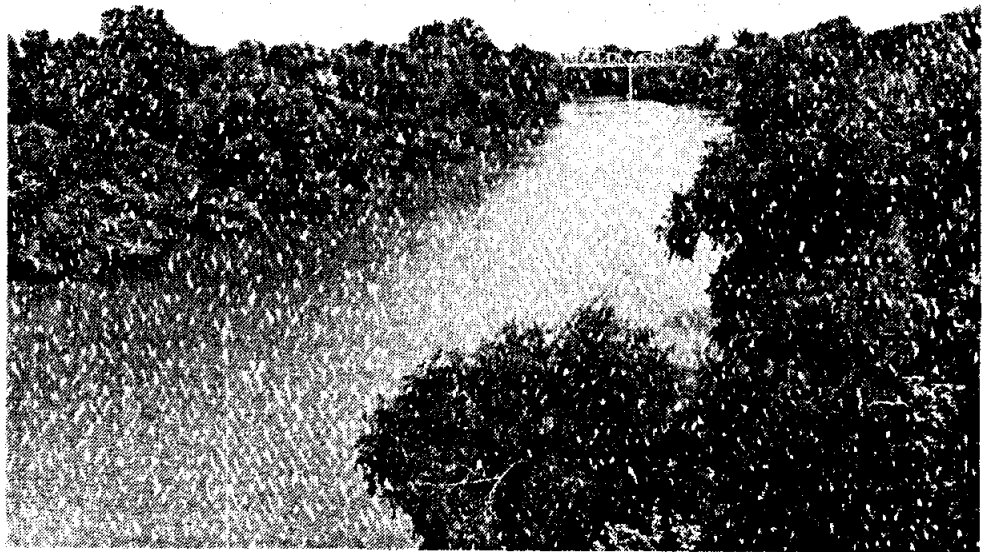


**BASTROP REGIONAL
WASTEWATER STUDY
FINAL REPORT
APPENDICES – VOLUME 1**

**FOR THE LOWER COLORADO
RIVER AUTHORITY**



SEPTEMBER, 1987

Freese
AND
Nichols, INC.
CONSULTING ENGINEERS



BASTROP
REGIONAL WASTEWATER STUDY
FINAL REPORT

APPENDICES

Prepared For The
LOWER COLORADO RIVER AUTHORITY

September 1987

Freese and Nichols, Inc.
Consulting Engineers
Fort Worth - Arlington - Austin

APPENDIX A:
CONTACT LIST

CONTACT LIST

Adams, Tom Bastrop County Commissioner
1317 Farm, Bastrop, Texas
(512) 321-1818
RE: Precinct One Wastewater Concerns

Ball, Harold ORENCO Systems
2826 Colonial Road, Roseburg, Oregon 97470
(503) 673-0165
RE: Maintenance Districts

Bartle, John A. Neptune-Wilkinson Associates, Inc.
2201 N. Lamar, Suite 203, Austin, Texas 78705
(512) 474-6458
RE: Costs of New 1.06 mgd WWTP for the City of Bastrop

Barton, John Bastrop County Department of Health and Sanitation
P.O. Box 802, County Courthouse, Bastrop, Texas 78602
(512) 321-5433
RE: Bastrop County On-Site System Regulations

Bastion, Jackie Jackie's Backhoe Service
P.O. Box 92, Cedar Creek, Texas 78612
(512) 321-3417
RE: Costs for Septic Tank Systems

Bastrop County Tax Appraisal Office
P.O. Box 579, Bastrop, Texas 78602
(512) 321-2589
RE: County Financial Reports

Bastrop Independent School District
Business and Tax Office
(512) 321-5101
RE: School District Audit Report

Deviney, Pat, Superintendent
(512) 321-5101
RE: School Enrollment Survey

Biggs,Bo Biggs Construction Co.
5304 Cueva Street, Austin, Texas 78738
(512) 263-5017
RE: Costs for Septic Tank Systems

Biggs, J.E. Biggs and Matthews Inc.
2500 Brook St. Wichita Falls, Texas
(817) 766-0156
RE: Existing Water System

CONTACT LIST (CONT.)

City of Bastrop

P.O. Box 427, Bastrop, Texas 78602

Brown, Ralph, Utility Director

(512) 321-3957

RE: City WWTP flow chart records

Hildebrand, David, City Planner

(512) 321-3941

RE: City Regulations & Development Information

Kessel, Barbara, Utilities Dept.

(512) 321-3941

RE: Water and Sewer rates, average billings

McLaurin, Artie, Acting City Manager and City Secretary

(512) 321-3941

RE: Wastewater and Fees and Annual Financial Report of The City of Bastrop

Patterson, Marvin, previous City Manager

(512) 321-3941

RE: City Records

Clakley, Gary Clackley's Excavating and Plumbing Co.

10700 Onyx Cove, Austin, Texas 78750

(512) 250-8474

RE: Costs for Septic Tank Systems

Cowsert, Dock, State Department of Highways & Public Transportation

P.O. Box 15426, Austin, Texas 78761

(512) 465-7348

RE: Aerial Photography

Cullinane, M. John, Jr. U.S.A.E. Waterways Experiment Station

P.O. Box 631, WESEE-S, Vicksburg, MS 39180-0631

(601) 634-3723

RE: Indices and costs in the CAPDET

Dellas, Tim Manila Community Service District

1901 Park St., Arcata, Cal 95521

(707) 444-3803

RE: Maintenance District Costs

Eckstein, Cathy, Capital Area Planning Council

2520 I.H. 35 South, Suite 100, Austin, Texas 78704

(512) 443-7653

RE: Planning Information

CONTACT LIST (CONT.)

Epps, Dr. James W. Mississippi State University
CAPDET Center, P.O. Box CE, Mississippi State, MS 39762
(601) 325-3050 and (601) 323-6905
RE: CAPDET Computer program

Falconieri, Louis Texas Natural Resources Information System
P.O. Box 13231, Austin, Texas 78711-3231
(512) 463-8406
RE: Aerial Photography

Fisher, Gene Southwestern Bell Engineering Division
1616 Guadalupe, Austin, Texas 78701
(512) 870-3102
RE: Population Forecasts

Hardy, Bob Tri-Level Excavating
1825 Fort View Rd, Suite 114, Austin, Texas 78704
(512) 447-7474
RE: Septic Tank System Costs

Howaeth, Steve RAMCO
8307 Bluff Springs Road, Austin, Texas 78744
(512) 282-2932
RE: Septic Tank System Costs

Humphreys, Bill Facility Manager
U.S. Department of Justice, Federal Corrections Institute-Bastrop
Hwy 95, Bastrop Texas 78602
(512) 321-3903
RE: Prison WWTP

Hunt, Jim Clear Clean Colorado Association
Star Route 6A, Bastrop, Texas 78602
(512) 321-5977
RE: Bastrop Independent School District Bus Routes

Kamin, Bill Superior Septic
600 Karolyne, Round Rock, Texas 78664
(512) 244-6300
RE: Septic Tank System Costs

Leslie, Karen, Texas Railroad Commission-Statistics Division
1701 N. Congress, Austin, Texas 78701
(512) 463-7034
RE: Average gas bills

Little, Bernard State Property Tax Board
P.O. Box 15900, Austin, Texas 78761
(512) 834-4856
RE: Property Tax Reports for study area

CONTACT LIST (CONT.)

Moore, Charlie Calaveras Water & Sewer District
P.O. Box 846, San Andreas, Cal 95249
(916) 754-3543
RE: Maintenance District Costs

NTIS U.S. Department of Commerce
Springfield, VA 22161
(703) 487-4650
RE: CAPDET Design Manual

Peterson, David Bluebonnet Electric
P.O. Box 240, Giddings, Texas 78942
(409) 542-3151
RE: Location of Existing Lines

Prince, Richard Georgetown Divide PUD
P.O. Box 338, Georgetown, Cal 95634
(916) 333-4356
RE: Maintenance District Costs

Rathman, Adlinie Aqua Water Supply Corp.
P.O. Drawer P, Bastrop, Texas 78602
(512) 321-3943
RE: Aqua Water Service Area

Richardson, Mark Stinson Beach Water District
P.O. Box 245, Stinson Beach, Cal 94970
(415) 868-1333
RE: Maintenance District Costs

Sanders, Dick Dick Sanders Drilling Co.
11814 Rimrock Tr., Austin, Texas 78737
(512) 288-1487
RE: Septic Tank System Costs

Schoenfelt, Keith Schoenfelt Engineering and Construction
5524 Bee Caves Rd, Suite J-6, Austin, Texas 78746
(512) 328-0146
RE: Septic Tank System Costs

Texas Department of Health
1100 West 49th St., Austin, Texas 78756-3192
(512) 458-7293

Johns, Ted
RE: Irrigation in Septic Tank Systems

Maria
RE: The Construction Standards of Septic Tanks

CONTACT LIST (CONT.)

Texas Water Commission
P.O. Box 13087, Capitol Station, Austin, Texas 78711

Cartenas, Rosie
(512) 463-7767
RE: WWTP Self-Reporting

Manning, Leah
(512) 463-8210
RE: Status of Wastewater discharge permits

McGinley, Ann
(512) 463-7788
RE: Wastewater effluent discharge parameters

Q. Merribe, James
(512) 463-8000
RE: Flood Plan Mapping

Stackable, Mike Wastewater Permits
(512) 463-8210
RE: Irrigation in Septic Tank Systems

Sylvia - Library
(512) 463-7834
RE: The "State of Texas Water Quality Inventory"

Young, John
(512) 463-7803
RE: Inspection Reports

CONTACT LIST (CONT.)

Texas Water Development Board
P.O. Box 13231, Capitol Station, Austin, Texas 78711-3231

Adams, Stephen
(512) 463-7867
RE: Current bond interest rates

Claybaugh, Sue
(512) 463-7853
RE: TWDB bonds and loans

Fleming, Bob Texas Water Development Fund
(512) 463-7867
RE: Texas Revolving Fund

Hull, Jim
(512) 463-7959
RE: Bastrop County Income Info.

Slaughter, Tommy Construction Grants Division
(512) 463-7853
RE: Facility Plan Requirements

Thorkildsen, David
RE: Ground Water Reports

Whitsett, Hayden
(512) 463-8518
RE: City/County Income Info.

Winters, Will Ed
(512) 463-8499
RE: CAPDET indices and sewer block

Thames, M.L. Thames ML & Sons Backhoe Service
Route 2, Box 45, Buda, Texas 78610
(512) 282-2941
RE: Septic Tank System Costs

Thompson, Gene Bastrop County WCID #2
P.O. Box 708, Bastrop, Texas
(512) 321-1688
RE: Tahitian Village

Tomlin, Hubert T & N Construction Co.
2403 Saratoga, Austin, Texas 78733
(512) 263-5054
RE: Septic Tank System Costs

CONTACT LIST (CONT.)

Townsend, Stephen Bastrop County Appraisal District
P.O. Drawer 578, Bastrop, Texas 78602
(512) 321-3925
RE: Land Costs in Bastrop county

Travis County Environmental Health
15 Waller St., Austin, Texas 78702
(512) 469-2022
RE: The "Rules of Travis County, Texas for Private Sewage Facilities"

U.S. Army Corps of Engineers - SW Division
P.O. Box 17300, Fort Worth, Texas 76102-0300
(817) 334-3207 - Receptionist
RE: Flood Plain Mapping

Vincik, Allen Pro-Equipment Co, Inc.
P.O. Box 95, Leander, Texas 78641
(512) 259-2530 or (512) 422-1963
RE: Septic Tank System Costs

Wilhelm, Shirley County Clerk
County Clerk's Office, P.O. Box 577, Bastrop, Texas 78602
(512) 321-4444
RE: County Plats

Wilkinson, Joel Neptune-Wilkinson Associates, Inc.
2201 N. Lamar, Austin, Texas 78705
(512) 474-6458
RE: City & County Regulations

Williamson, Kevin W. Henry S. Miller Co.
301 Congress Ave., Suite 950, Austin, Texas 78701
RE: Area Development, Population Data

Willis, Laverne Texas Natural Resources Information System (TNRIS)
P.O. Box 13087, Austin, Texas 78711
(512) 463-8406
RE: Income Census Data

Wright, Rita U.T. Bureau of Business
P.O. Box 7459, Austin, Texas 78713
(512) 471-1616
RE: Effective Buying Income

Yates, Kent Texas Economic Development Commission
P.O. Box 12728 Capitol Station, Austin, Texas 78711
(512) 472-5059
RE: TEXCAP Loan Program

APPENDIX B:
CORRESPONDENCES

LOWER COLORADO RIVER AUTHORITY



INTER-OFFICE MEMORANDUM

TO: Rasid Neyez, Bill Leisering

DATE: February 5, 1987

FROM: Mike Personett *MLP*

*REVISED - SEE MEMO
5/15/87*

SUBJECT: Incorporation of Wastewater Flow Reduction into Wastewater Flow Projections for the Bastrop and Lake Marble Falls Regional Studies

The effects of water-conserving plumbing fixtures and appliances in new construction are to be factored into the wastewater flow projections for the Bastrop and Lake Marble Falls study areas. This will be accomplished by using wastewater generation criteria which incorporate documented conservation/flow reduction effects. Alternative wastewater generation criteria for new development in each study area will be provided to the consultant's by LCRA. A flow reduction retrofit scenario for existing development will not be included in the analysis performed by the consultant.

As discussed, the general approach to be followed for each study area will involve development of a base flow projection for the year 1990. This base flow will be estimated from available demographic and water/wastewater utility data for each study area. No explicit consideration of wastewater flow reduction is expected in the 1990 base flow projection. For residential development occurring after 1990, two alternative wastewater generation criteria will be provided and incorporated into flow projections. One "scenario" will reflect the wastewater generation characteristics of new housing that meets "industry" standards for plumbing fixture and appliance efficiency. The second scenario will represent further reductions in wastewater generation resulting from the inclusion of ultra-low volume toilets (1.5 gallons per flush or less) in all new residential construction. The end result will be a high and low projection of wastewater flows for the residential category. As also discussed, it may be desirable for the consultant's to conduct a sensitivity analysis of population growth in order to show a high and low flow projection based on varying assumptions about future populations residing in each study area.

The definition of wastewater generation criteria for non-residential development (commercial-public-industrial) will obviously be much more difficult given the wide variation in the wastewater generation characteristics of different "types" of facilities. It is suggested that criteria for non-residential development be defined after the demographic and land use data for each study area has been compiled. This will allow LCRA staff to examine the projected development mix for each area and determine the likely significance of wastewater flow reduction on the total area-wide projected flows.

Finally, each consultant should pay some attention, at least at a reconnaissance level, to potential opportunities for wastewater reclamation and reuse. This will be of particular importance in the Lake Marble Falls study area due to the likelihood of no-discharge rules. Given my professional experience with on-site reuse and recycling, I will be able to assist the consultants with aspect as required.

As promised, technical data supporting alternative wastewater generation criteria will be compiled and provided to the consultants. I will also be available to answer questions or provide clarification as needed.



Lower Colorado River Authority

Post Office Box 220 Austin, Texas 78767 • (512) 473-3200

To: Quentin Martin

Date: March 20, 1987

From: Mike Personett

MLP

Subject: Wastewater Generation Criteria for use in the Bastrop and Lake Marble Falls Regional Wastewater Service Studies

This memorandum presents the technical basis and my recommendations for residential wastewater generation criteria for use in the Bastrop and Lake Marble Falls regional wastewater service studies. As previously discussed, the approach to be followed for each study area will first involve development of a base flow projection for the year 1990. This base flow will be estimated from available demographic and water/wastewater utility data for each area. At this stage, no explicit consideration of interior water conservation/wastewater flow reduction measures is expected in the 1990 base flow projection. The effects of recent technological improvements in the water-use efficiency of plumbing fixtures and appliances in housing built since 1980 should be "captured" to some degree in the 1990 base flow projection. No assumptions will be made concerning the retrofit of water-saving devices into existing housing built prior to 1980. A retrofit program for the pre-1980 housing stock can be considered separately at a later date.

For residential development occurring after 1990, the consultants will develop three wastewater flow scenarios using wastewater generation criteria that reflect three progressive levels of plumbing fixture and appliance efficiency. The first scenario will be based on the widely accepted wastewater generation rate of 100 gallons per capita per day (gcd) and can be considered the baseline or the "non-conserving scenario". The second scenario will reflect the reduced per capita wastewater generation of new housing built in compliance with prevailing industry standards for plumbing fixture and appliance efficiency. This "minimum conservation scenario" will be based on 80 gcd or a 20 percent reduction in per capita wastewater generation relative to the non-conserving scenario. The third scenario will represent further reductions in per capita wastewater generation that result from the use of ultra-low volume toilets (1.5 gallons or less per flush) in all new housing. This "advanced conservation scenario" will

be based on 70 gcd or a 30 percent reduction in per capita wastewater generation relative to the non-conserving scenario.

The technical basis for the alternative residential wastewater generation rates is the result of recent research into residential water use and the effectiveness of water-conserving plumbing fixtures and appliances. In particular, the U.S. Department of Housing and Urban Development (HUD) sponsored an intensive multi-year study which documented residential water use characteristics, fixture and appliance use rates, and the water-savings resulting from the use of high-efficiency plumbing fixtures and appliances.¹ Importantly, the results of the "HUD Study", as it is affectionately known in water conservation circles, is based on extensive monitoring data from "real life" applications; rather than the rules-of-thumb and laboratory test data that forms the basis for much of the previous research and literature on water conservation. As such, the HUD Study has greatly enhanced the reliability of predicting interior residential water use and the resulting wastewater flows. Further enhancing my confidence in the HUD Study is the fact that other water use/wastewater flow studies have documented residential water use characteristics that are generally consistent with the HUD Study results.

Tables 1 through 3 present HUD Study estimates of interior residential water use for the three scenarios previously described. One should note that the estimated interior water use of 77.3 gcd for older, "non-conserving" housing is significantly lower than the commonly used engineering design standard of 100 gcd. Appropriately, in my view, this discrepancy of nearly 23 gcd can be considered the margin of safety that is inherent in the 100 gcd design standard. If this is the case, then it seems reasonable that any "conservation" adjustments in wastewater generation criteria should maintain a similar safety margin. This is the approach that I have taken in developing wastewater generation criteria for use in the Bastrop and Lake Marble Falls studies. Specifically, the HUD Study estimates of interior water use for the minimum conservation and advanced conservation scenarios show reductions in water use relative to the non-conserving scenario of 21 percent and 35 percent respectively. Using 100 gcd as the baseline criteria, adjustments to reflect conservation effects of 20 and 30

¹U.S. Department of Housing and Urban Development, Office of Policy Development and Research, June 1984. Residential Water Conservation Projects. Germantown, Md.: HUD User.

TABLE 3. ADVANCED CONSERVATION

ITEM	UNIT USAGE FACTOR	UNIT MEASURE	UNIT USAGE RATE	UNIT MEASURE	WATER USE (gcd)
Toilets	1.5	Gal/Flush	4.00	Flushes/Capita-Day	6.0
Showers	1.9	Gal/Minute	4.80	Minutes/Capita-Day	9.1
Washing Machines	42.0	Gal/Load	0.30	Loads/Capita-Day	12.6
Dishwashers	10.0	Gal/Load	0.17	Loads/Capita-Day	1.7
Faucets w/out Restrictors		Estimated			8.5
Baths	50.0	Gal/Bath	0.14	Baths/Capita-Day	7.0
Toilet Leakage	24.0	Gal/Day	0.20	% Time Leaking	4.8
TOTAL INTERIOR RESIDENTIAL					49.7 gcd

Source: HUD Study

TABLE 4. PROPOSED WASTEWATER GENERATION CRITERIA COMPARED TO HUD STUDY ESTIMATES OF ACTUAL INTERIOR RESIDENTIAL WATER USE

	NON- CONSERVING	MINIMUM CONSERVATION	PERCENT REDUCTION	ADVANCE CONSERVATION	PERCENT REDUCTION
HUD STUDY	77.3 gcd	60.9 gcd	21%	49.7 gcd	35%
WASTEWATER GENERATION CRITERIA	100.0 gcd	80.0 gcd	20%	70.0 gcd	30%
SAFETY MARGIN	22.7 gcd	19.1 gcd	--	20.3 gcd	--

TABLE 1. NON-CONSERVING

ITEM	UNIT USAGE FACTOR	UNIT MEASURE	UNIT USAGE RATE	UNIT MEASURE	WATER USE (gcd)
Toilets	5.5	Gal/Flush	4.00	Flushes/Capita-Day	22.0
Showers	3.4	Gal/Minute	4.80	Minutes/Capita-Day	16.3
Washing Machines	55.0	Gal/Load	0.30	Loads/Capita-Day	16.5
Dishwashers	14.0	Gal/Load	0.17	Loads/Capita-Day	2.4
Faucets w/out Restrictors		Estimated			9.0
Baths	50.0	Gal/Bath	0.14	Baths/Capita-Day	7.0
Toilet Leakage	24.0	Gal/Day	0.17	% Time Leaking	4.1
TOTAL INTERIOR RESIDENTIAL					77.3 gcd

Source: HUD Study

TABLE 2. MINIMUM CONSERVATION

ITEM	UNIT USAGE FACTOR	UNIT MEASURE	UNIT USAGE RATE	UNIT MEASURE	WATER USE (gcd)
Toilets	3.5	Gal/Flush	4.00	Flushes/Capita-Day	14.0
Showers	1.9	Gal/Minute	4.80	Minutes/Capita-Day	9.1
Washing Machines	42.0	Gal/Load	0.30	Loads/Capita-Day	12.6
Dishwashers	10.0	Gal/Load	0.17	Loads/Capita-Day	1.7
Faucets w/out Restrictors		Estimated			8.5
Baths	50.0	Gal/Bath	0.14	Baths/Capita-Day	7.0
Toilet Leakage	24.0	Gal/Day	0.33	% Time Leaking	8.0
TOTAL INTERIOR RESIDENTIAL					60.9 gcd

Source: HUD Study

percent are proposed. This, I believe, is a very conservative approach that will maintain an adequate safety margin in post-1990 wastewater flow projections. In fact, the safety margin associated with the minimum conservation and advanced conservation scenarios increases in proportion to the predicted decrease in actual wastewater generation. The approach is summarized in Table 4.

It should also be emphasized that the proposed reductions in wastewater generation rates are based solely on the installation of water-efficient plumbing fixtures and appliances in all new residential construction. This "technology-based" approach has several advantages including:

1. The ability to incorporate the desired level of efficiency at the time of construction, at little or no additional cost;
2. The relative permanence of interior water use and wastewater flow reductions; and
3. The ability to achieve water conservation/wastewater flow reduction passively, that is, without requiring a conscious effort by the consumer to conserve

As discussed, implementation of the alternative "water conservation scenarios" should not be a concern addressed by the consultants. However, the basic implementation strategy should be apparent. Since the two conservation scenarios are inherently technology-based, implementation would focus on the use of prescriptive performance standards for plumbing fixtures (toilets, showers, faucets) and appliances (dishwashers). Such standards would be applicable to all new construction and incorporated into plumbing codes, deed restrictions, and utility service agreements. Inspections and/or documentation to ensure compliance would be necessary. Additionally, an on-going public information/awareness program should be implemented to reinforce the effectiveness of the technology-based water efficiency measures.

In conclusion I would like to state my preference for using the "advanced" conservation scenario as the basis for scheduling any wastewater treatment capacity additions beyond that proposed for initial construction. This preference is based on my belief that the ultra-low volume toilet will become the "industry standard" within the next decade. A number of cities in the western U.S. have recently modified plumbing codes to require ULV toilets and the State of California is actively considering ULV toilets as a statewide standard for new construction. As a result, a number of major plumbing fixture manufacturers have

recently entered the ULV toilet market (e.g., Briggs, Crane, Eljer, and Mansfield) and others are rumored to be developing product for market introduction. These developments point toward increasing availability and lower prices for ULV toilets which will likely spur the three national plumbing code organizations to eventually adopt the ULV toilet as the standard in their model codes. In any event, there is no good reason why such fixtures should not be required in new housing at this time. In fact, cities and utilities seeking LCRA assistance with water conservation will be offered a model plumbing code which specifies ULV toilets in new construction.

Please call if you have questions or require additional information. I look forward to presenting this information to the consultants and the citizen steering committees as required.

MP/ns

pc: Don Bowen
Kent Butler
J.W. Lawson
Bill Liesering
Rashid Navez



Lower Colorado River Authority

Post Office Box 220 Austin, Texas 78767 • (512) 473-3308

W.E. WEST, Jr., Executive Director of Natural Resources

May 21, 1987

RECEIVED
MAY 27 1987

NICHOLS, INC.

Mr. Joe King, II, P.E.
Freese & Nichols, Inc.
314 Highland Mall Blvd.
Suite 560
Austin, Texas 78752

Re: Bastrop Regional Wastewater Feasibility Study

Dear Joe:

This is in response to your letter dated May 14, 1987 concerning sub-basin boundary redefinition and areas designated for limited alternative evaluation for existing conditions. The redefinition of sub-basin 1C appears appropriate to consolidate areas of projected higher intensity land use.

With regards to the areas identified for limited alternative evaluation, inclusion of these areas within regional centralized collection and treatment service areas is acknowledged as unreasonable due to insufficient projected population density. However, please note that the majority of these areas are identified in the April, 1987 report to have severe limitations for septic tank absorption fields. As noted in our comments of May 15, 1987, evaluation of alternatives for such areas will include innovative / alternative, decentralized facilities and Septic Tank Maintenance Districts as appropriate.

With these understandings, we are in agreement with your evaluation of this issue.

Sincerely,

Bill Leisering

Bill Leisering, P.E.

cc: Kent Butler

Xc - JCC
BH
DMEG.
ALH
Dwy

Freese
AND
Nichols, INC.
CONSULTING ENGINEERS

SIMON W. FREESE, P.E.
JAMES R. NICHOLS, P.E.
ROBERT L. NICHOLS, P.E.
LEE B. FREESE, P.E.
ROBERT S. GOOCH, P.E.
JOE PAUL JONES, P.E.
ROBERT A. THOMPSON III, P.E.
JOHN H. COOK, P.E.
T. ANTHONY REID, P.E.
GARY N. REEVES, P.E.
GEORGE E. HUMAN, P.E.

JOE B. MAPES, P.E.
W. ERNEST CLEMENT, P.E.
ELVIN C. COPELAND, P.E.
JERRY L. FLEMING, P.E.
A. LEE HEAD III, P.E.
RONNIE M. LEMONS, P.E.
MICHAEL G. MORRISON, P.E.
C. DIANE PALMER, P.E.
ROBERT F. PENCE, P.E.
LEO A. DOTSON, P.E.
DAVID R. GATTIS
JOHN L. JONES, P.E.
THOMAS C. GOOCH, P.E.
GARRY H. GREGORY, P.E.
MICHAEL L. NICHOLS, P.E.

May 27, 1987

Mr. Bill Leisering, P.E.
Lower Colorado River Authority
P.O. Box 220
Austin, Texas 78767

RE: Bastrop Regional
Wastewater Study
LOR 87529

Dear Bill:

The purpose of this letter is to confirm your approval of the revised sub-basin boundaries for the above-referenced project. Attached are maps illustrating the proposed boundaries as we discussed on Friday, May 26, 1987.


In summary, the proposed sub-basin boundary changes (as shown in green) include adjustments to Sub-Basin 1C; redefinition of sub-basin areas 3A, 3B, and 3C to Lower Cedar Creek, Middle Cedar Creek and Upper Cedar Creek, respectively; and designation of Sub-Basin 5 as South Cedar Creek. The areas outlined in yellow will be evaluated based on existing conditions (Year-1990) only. The area shown by cross-hatching will remain in the Bastrop Study area until the scope of the proposed FM 812/21 Area Study is finalized.

Please contact me if you have exceptions to the changes outlined above. Unless we hear otherwise, we will be proceeding with our analysis of alternatives based on these sub-basin boundaries.

Enclosed also is a copy of the revised Report Outline and the initial Alternative Definition Outline. Please contact me if you have any questions or comments regarding these items.

Very truly yours,

FREESE AND NICHOLS, INC.


Joe King, II, P.E.

JCZ:JKII:v1b (004)



Lower Colorado River Authority

Post Office Box 220 Austin, Texas 78767 • (512) 473-3200

May 15, 1987

Mr. Joe King, II, P.E.
Freese & Nichols, Inc.
314 Highland Mall Blvd.
Suite 560
Austin, Texas 78752

Re: Preliminary Draft Report on Population, Land Use and
Wastewater Flow Projections

Dear Joe:

We have reviewed the preliminary draft of the referenced phase of the Bastrop Regional Wastewater Feasibility Study. We appreciate the quick response to initial comments prior to distribution at the Steering Committee meeting on April 27, 1987. Further comments on that draft follow:

1. The discussion presented regarding the population and land use projection methodology and sub-basin allocation rationale requires detailed development. Documentation and discussion of population projection methodology is needed to describe the variation of assumptions between the high and low series projections.
2. Because the City of Bastrop and its ETJ encompass a majority of the study area, the discussion of development constraints should be expanded to briefly discuss other factors such as City County development regulations and their relative impact, i.e. subdivision and MUD ordinances, utility service policies and impact fees.
3. The breakout of the study area into 14 sub-basin-areas appears appropriate. In addition, please provide the total acreage of each sub-basin and assumed residential development density so that the approximate percent of sub-basin buildout at each decade is definable.
4. The algorithm used to develop average and peak flows should be identified. Although the report identifies the development of the different elements of flow, the sum of these elements is somewhat complicated with the

flow reduction scenarios. Additional documentation and analysis of the design flow criteria for commercial / industrial and infiltration and inflow is needed to explain the relativity of these values.

5. The inclusion of wet-weather infiltration and inflow with the average flow seems inappropriate without an established base flow rate for defining average flow conditions for treatment plant design criteria. In that regard, was flow data from the City of Bastrop evaluated to establish a base flow rate for their existing collection system. The report should discuss all relevant, available data and its applicability to the study development.

In summary, the preliminary draft of this phase of the study offers appropriate project development and acceptable land use and population projections. The flow projections for average flow need modification and the alternative development will be based on design flows as we discussed in our meeting of May 8, 1987 (follow-up memo for that meeting is attached). As you will note in our comments herein, the report needs additional qualitative development of the discussions of the various elements. We understand that this is a preliminary draft, however, please keep in mind that this report in final draft must develop conclusions of project feasibility based on strong technical documentation also encourages local community support. That is to say, that the report needs to engender the confidence of technical and lay persons, alike, that methodologies used are explained, understandable, and defensible.

If you have any questions, please let us know.

Sincerely,



Bill Leisering, P.E.

cc: Kent Butler
Steve Parks
Mike Personett

Lower Colorado River Authority
INTER-OFFICE MEMORANDUM



TO: Kent Butler

DATE: 5/15/87

FROM: Bill Leisering *BL*

SUBJECT: Bastrop and Lake Marble Falls / LBJ Regional Wastewater Feasibility Studies: Facility Design Flows

This is to summarize the results of our meeting on May 8, 1987 with project consultants regarding design flows and alternatives development.

The issue revolves primarily around high and low population projections and domestic per capita flow rates under water conservation / flow reduction scenarios. We have agreed that primary facility layout, phasing and sizing will be based on 100 gpcd and the low series population projection. If a base per capita flow can be established different from the 100 gpcd, the consultants may use that flow rate where appropriate, so long as the flow rate with an assumed 30% flow reduction is not less than 50 gpcd.

The RFP and contract documents require that wastewater service needs and facility plans must be evaluated for alternative water and wastewater conservation and reuse technologies. We have agreed that the following method of alternatives development and analysis be observed.

1. Evaluate treatment facility needs, phased at 10 year increments or less, based on the established base flow or 100 gpcd and the low series population projection.
2. Evaluate collection and transmission facility needs on 100 gpcd and low series population.
3. Analyze the sensitivity of the identified facility needs relative to the higher growth rate of the high series population projection and water conservation / flow reduction. This analysis should include a detailed evaluation of:
 - a. Effective design life of the identified facilities.
 - b. Flexibility of the given facility to accommodate the high series population growth rate with and without water conservation / flow reduction.

- c. Facility design modifications that would be required to provide capacity for more persons at reduced per capita flow rates. This would include reduced land requirements for the no-discharge irrigation disposal system associated with water conservation / flow reduction.
 - d. The fiscal impacts of possible extended facility life and increased service population capacity on user rates and capital impact fees.
4. Evaluate innovative / alternative options in sub-basin areas where population density may not justify a central sub-basin collection system. Innovative / alternative options will include Septic Tank Maintenance Districts and small, decentralized facility options.

In summary, the development of alternatives will assume regional wastewater management of the entire study area and the consultants will apply their expert engineering judgment in identifying facility needs for individual sub-basins. In sub-basins where proposed developments have been identified which may be subject to highly variable buildout rates, the consultant will focus on appropriate per capita flow rate and population scenarios which most affect project feasibility.

Although major facility needs are to be based on 10 year phasing increments and the low population series at 100 gpcd, a detailed analysis, both qualitative and quantitative, of the effects of the higher population growth rate and water conservation / flow reduction will be provided.

MEMORANDUM

TO: Project Team
FROM: Joe King, II
DATE: June 3, 1987
SUBJECT: LCRA Bastrop Regional WW Study
LOR 87529
Sub-Basin Adjustments

During a meeting with Bill Leisering and Kent Butler of LCRA, on this date, it was verbally agreed that the sub-basin boundaries delineated by our submittal to Bill Leisering of May 27, 1987 will be used for the remainder of the evaluation of this the Study Area. The only adjustments to this submittal are as follows:

- (1) The developments within the Maha Drainage Basin at the west edge of the study area at the Bastrop/Travis County line will be assessed via an upcoming study for the Southeast Travis Co./FM 812-21 areas within the Maha and Cedar Creek Basins. The only assessment of these developments within the Bastrop Study will be through a verbal connection in the Interim Report explaining this severance and in the Draft Final Report explaining the connection between the two reports.
- (2) The area now included in Sub-Basin 5 (South Cedar Creek) will remain a separate sub-basin designated to receive an evaluation of existing (Yr. 1990) condition only (See letter May 27, 1987 attached). However, written reference will be made in the report as to the potential for supplying treatment via alternatives 3C (1) through (3) (See Memo May 26, 1987).

Also reference is made to a copy of the Table of Contents sent by my memo of May 26, 1987 with notation regarding items and adjustments I believe should be made at this time.

Please make adjustments as appropriate in the affected report section.

xc: JCZ
DWS
BH
AMS
BN
Bill Leisering

028JKII.MEM

APPENDIX C:
LAND USE SUMMARY

TABLE C-1
SUB-BASIN BUILDOUT
LOW SERIES
1990

Drainage Basin/Sub-basin	Drainage Basin (Acres)	Residential (Acres)	Commercial/ Industrial (Acres)	Percent Buildout
1. Piney Creek				
A. Bastrop	2,890	1,257	265	53
B. Lake Bastrop	8,224	1,787	110	23
C. Camp Swift	11,125	3,004	720	33
D. Bastrop NW	3,530	872	40	26
SUBTOTAL	25,769	6,920	1,135	31
2. Colorado River (misc.)				
A. Tahitian Village	6,304	474	100	9
B. Bastrop SW	7,485	1,321	130	19
C. Hemphill Prairie	8,373	1,420	110	18
D. Big Sandy Creek	5,829	368	0	6
E. Dry Creek	13,817	2,892	30	21
SUBTOTAL	41,808	6,475	370	16
3. Cedar Creek				
A. Lower Cedar Creek	5,270	1,192	25	23
B. Middle Cedar Creek	8,983	1,471	220	19
C. Upper Cedar Creek	9,131	3,117	85	35
SUBTOTAL	23,384	5,780	330	26
4. Walnut Creek	6,935	819	0	12
5. South Cedar Creek	7,481	820	0	11
STUDY AREA TOTAL	105,377	20,814	1,835	21

TABLE C-2
SUB-BASIN BUILDOUT
LOW SERIES
2000

Drainage Basin/Sub-basin	Drainage Basin (Acres)	Residential (Acres)	Commercial/ Industrial (Acres)	Percent Buildout
1. Piney Creek				
A. Bastrop	2,890	1,354	375	60
B. Lake Bastrop	8,224	1,812	140	24
C. Camp Swift	11,125	3,135	850	36
D. Bastrop NW	3,530	906	100	28
SUBTOTAL	25,769	7,207	1,465	34
2. Colorado River (misc.)				
A. Tahitian Village	6,304	1,204	270	23
B. Bastrop SW	7,485	1,380	320	23
C. Hemphill Prairie	8,373	2,012	210	27
D. Big Sandy Creek	5,829	382	0	7
E. Dry Creek	13,817	4,350	280	34
SUBTOTAL	41,808	9,328	1,080	25
3. Cedar Creek				
A. Lower Cedar Creek	5,270	1,203	25	23
B. Middle Cedar Creek	8,983	2,441	460	32
C. Upper Cedar Creek	9,131	3,168	155	36
SUBTOTAL	23,384	6,812	640	32
4. Walnut Creek	6,935	979	0	14
5. South Cedar Creek	7,481	958	0	13
STUDY AREA TOTAL	105,377	25,284	3,185	27

TABLE C-3
SUB-BASIN BUILDOUT
LOW SERIES
2010

Drainage Basin/Sub-basin	Drainage Basin (Acres)	Residential (Acres)	Commercial/ Industrial (Acres)	Percent Buildout
1. Piney Creek				
A. Bastrop	2,890	1,439	415	64
B. Lake Bastrop	8,224	2,079	150	27
C. Camp Swift	11,125	3,550	870	40
D. Bastrop NW	3,530	956	110	30
SUBTOTAL	25,769	8,024	1,545	37
2. Colorado River (misc.)				
A. Tahitian Village	6,304	1,946	610	41
B. Bastrop SW	7,485	2,002	360	32
C. Hemphill Prairie	8,373	2,393	410	33
D. Big Sandy Creek	5,829	410	0	7
E. Dry Creek	13,817	4,815	310	37
SUBTOTAL	41,808	11,566	1,690	32
3. Cedar Creek				
A. Lower Cedar Creek	5,270	1,528	25	29
B. Middle Cedar Creek	8,983	3,000	740	42
C. Upper Cedar Creek	9,131	4,067	285	47
SUBTOTAL	23,384	8,575	1,050	41
4. Walnut Creek				
	6,935	1,142	0	16
5. South Cedar Creek				
	7,481	1,130	0	15
STUDY AREA TOTAL	105,377	30,437	4,285	33

APPENDIX D:
INTERIM ALTERNATIVE
DATA

Table 3.1
Alternative Definitions

1A. City of Bastrop

- (1) Regional WWTP
 - a. at Haupt Bend west of Colo. River
 - b. at Haupt Bend east of Colo. River (City prop.)
- (2) Piney Creek Basin WWTP
 - a. at Existing City WWTP
 - b. at Haupt Bend east of Colo. River (City prop.)
- (3) Maintain existing WWTP for City only

1B. Lake Bastrop

- (1) Regional WWTP
 - a. at Haupt Bend west of Colo. River
 - b. at Haupt Bend east of Colo. River (City prop.)
- (2) Piney Creek Basin WWTP
 - a. at Existing City WWTP
 - b. at Haupt Bend east of Colo. River (City prop.)
 - c. on Piney Creek (excludes City of Bastrop)
- (3) Local WWTP
 - a. for discharge
 - b. for irrigation
- (4) Septic Tanks/Evapotranspiration Systems
 - a. w/Maintenance District
 - b. w/o Maintenance District
- (5) Cluster Systems
 - a. w/Irrigation
 - b. w/Evapotranspiration

1C. Camp Swift

- (1) Regional WWTP
 - a. at Haupt Bend west of Colo. River
 - b. at Haupt Bend east of Colo. River (City prop.)
- (2) Piney Creek Basin WWTP
 - a. at Existing City WWTP
 - b. at Haupt Bend east of Colo. River (City prop.)
 - c. on Piney Creek (excludes City of Bastrop)
- (3) Local WWTP
 - a. for discharge
 - b. for irrigation
- (4) Septic Tanks/Evapotranspiration Systems
 - a. w/Maintenance District
 - b. w/o Maintenance District

Table 3.1, (Continued)

- (5) Cluster Systems
 - a. w/Irrigation
 - b. w/Evapotranspiration

1D. Bastrop NW

- (1) Regional WWTP
 - a. at Haupt Bend west of Colo. River
 - b. at Haupt Bend east of Colo. River (City prop.)
- (2) Piney Creek Basin WWTP
 - a. at Existing City WWTP
 - b. at Haupt Bend east of Colo. River (City prop.)
 - c. on Piney Creek (excludes City of Bastrop)
- (3) Local WWTP
 - a. for discharge
 - b. for irrigation
- (4) Septic Tanks/Evapotranspiration Systems
 - a. w/Maintenance District
 - b. w/o Maintenance District
- (5) Cluster Systems
 - a. w/Irrigation
 - b. w/Evapotranspiration

2A. Tahitian Village

- (1) Pump to Regional WWTP
 - a. at Haupt Bend west of Colo. River
 - b. at Haupt Bend east of Colo. River (City prop.)
- (2) Pump to Piney Creek Basin WWTP
 - a. at Existing City WWTP
 - b. at Haupt Bend east of Colo. River (City prop.)
- (3) Local WWTP
 - a. for discharge
 - b. for irrigation
- (4) Septic Tanks/Evapotranspiration Systems
 - a. w/Maintenance District
 - b. w/o Maintenance District
- (5) Cluster Systems w/Evapotranspiration

2B. Bastrop SW

- (1) Regional WWTP
 - a. at Haupt Bend west of Colo. River
 - b. at Haupt Bend east of Colo. River (City prop.)

Table 3.1, (Continued)

- (2) Pump to Piney Creek Basin WWTP
 - a. at Existing City WWTP
 - b. at Haupt Bend east of Colo. River (City prop.)
- (3) Pump to Cedar Creek Basin WWTP
 - a. at Haupt Bend west of Colo. River
- (4) Local WWTP
 - a. for discharge
 - b. for irrigation
- (5) Septic Tanks/Evapotranspiration Systems
 - a. w/Maintenance District
 - b. w/o Maintenance District
- (6) Cluster Systems
 - a. w/Irrigation
 - b. w/Evapotranspiration

2C. Hemphill Prairie

- (1) Regional WWTP
 - a. at Haupt Bend west of Colo. River
 - b. at Haupt Bend east of Colo. River (City prop.)
- (2) Pump to Piney Creek Basin WWTP
 - a. at Existing City WWTP
 - b. at Haupt Bend east of Colo. River (City prop.)
- (3) Pump to Cedar Creek Basin WWTP
 - a. at Haupt Bend west of Colo. River
- (4) Local WWTP
 - a. for discharge
 - b. for irrigation
- (5) Septic Tanks/Evapotranspiration Systems
 - a. w/Maintenance District
 - b. w/o Maintenance District
- (6) Cluster Systems
 - a. w/Irrigation
 - b. w/Evapotranspiration

2D. Big Sandy Creek

- (1) Septic Tanks/Evapotranspiration Systems
 - a. w/Maintenance District
 - b. w/o Maintenance District
- (2) Cluster Systems
 - a. w/Irrigation
 - b. w/Evapotranspiration

Table 3.1, (Continued)

2E. Dry Creek

- (1) Regional WWTP
 - a. at Haupt Bend west of Colo. River
 - b. at Haupt Bend east of Colo. River (City prop.)
- (2) Pump to Cedar Creek Basin WWTP
 - a. at Haupt Bend west of Colo. River
- (3) Dry Creek Sub-Basins Local WWTP
 - a. West Sub-Basin
 - (i) for discharge
 - (ii) for irrigation
 - b. East Sub-Basin
 - (i) for discharge
 - (ii) for irrigation
- (4) Septic Tanks/Evapotranspiration Systems
 - a. w/Maintenance District
 - b. w/o Maintenance District
- (5) Cluster Systems
 - a. w/Irrigation
 - b. w/Evapotranspiration

3A. Lower Cedar Creek

- (1) Regional WWTP
 - a. at Haupt Bend west of Colo. River
 - b. at Haupt Bend east of Colo. River (City prop.)
- (2) Cedar Creek Basin WWTP
 - a. at Haupt Bend west of Colo. River
- (3) Local WWTP
 - a. for discharge
 - b. for irrigation
- (4) Septic Tanks/Evapotranspiration Systems
 - a. w/Maintenance District
 - b. w/o Maintenance District
- (5) Cluster Systems
 - a. w/Irrigation
 - b. w/Evapotranspiration

3B. Middle Cedar Creek

- (1) Regional WWTP
 - a. at Haupt Bend west of Colo. River
 - b. at Haupt Bend east of Colo. River (City prop.)
- (2) Cedar Creek Basin WWTP
 - a. at Haupt Bend west of Colo. River

Table 3.1, (Continued)

- (3) Local WWTP
 - a. for discharge
 - b. for irrigation
 - (4) Septic Tanks/Evapotranspiration Systems
 - a. w/Maintenance District
 - b. w/o Maintenance District
 - (5) Cluster Systems
 - a. w/Irrigation
 - b. w/Evapotranspiration
- 3C Upper Cedar Creek
- (1) Regional WWTP
 - a. at Haupt Bend west of Colo. River
 - b. at Haupt Bend east of Colo. River (City prop.)
 - (2) Cedar Creek Basin WWTP
 - a. at Haupt Bend west of Colo. River
 - (3) Local WWTP
 - a. for discharge
 - b. for irrigation
 - (4) Septic Tanks/Evapotranspiration Systems
 - a. w/Maintenance District
 - b. w/o Maintenance District
 - (5) Cluster Systems
 - a. w/Irrigation
 - b. w/Evapotranspiration
4. Walnut Creek
- (1) Septic Tanks/Evapotranspiration Systems
 - a. w/Maintenance District
 - b. w/o Maintenance District
 - (2) Cluster Systems
 - a. w/Irrigation
 - b. w/Evapotranspiration
5. South Cedar Creek
- (1) Septic Tanks/Evapotranspiration Systems
 - a. w/Maintenance District
 - b. w/o Maintenance District
 - (2) Cluster Systems
 - a. w/Irrigation
 - b. w/Evapotranspiration

TABLE 2.4c
WASTEWATER FLOW PROJECTIONS
HIGH SERIES W/ NO^a CONSERVATION
(INTERIM REPORT)

Drainage Basin/Sub-basin	POPULATION			COMM/IND LAND USE (ACRES)		
	1990	2000	2010	1990	2000	2010
1. Piney Creek						
A. Bastrop	4,590	5,810	6,850	265	425	525
B. Lake Bastrop	930	1,130	1,410	110	140	230
C. Camp Swift	1,280	3,880	4,280	720	850	900
D. Bastrop NW	570	610	680	40	100	150
SUBTOTAL	7,370	11,430	13,220	1,135	1,515	1,805
2. Colorado River (misc.)						
A. Ishittian Village	1,120	2,500	5,000	100	270	610
B. Bastrop SW	1,050	1,240	1,600	130	340	380
C. Hemphill Prairie	640	2,320	4,310	160	310	510
D. Big Sandy Creek	60	70	90	0	0	0
E. Dry Creek	2,510	8,600	14,940	30	440	720
SUBTOTAL	5,380	14,730	25,940	420	1,360	2,220
3. Cedar Creek						
A. Lower Cedar Creek	490	630	1,090	25	25	25
B. Middle Cedar Creek	1,520	4,910	11,380	320	720	980
C. Upper Cedar Creek *	1,430	1,640	1,880	85	155	295
SUBTOTAL	3,440	7,180	14,350	430	900	1,300
4. Walnut Creek	130	150	210	0	0	0
5. South Cedar Creek	160	170	280	0	0	0
STUDY AREA TOTAL	16,480	33,660	54,000	1,985	3,775	5,325

Drainage Basin/Sub-basin	AVERAGE NET WEATHER FLOW (GPD)			PEAK NET WEATHER FLOW (GPD)		
	1990	2000	2010	1990	2000	2010
1. Piney Creek						
A. Bastrop	657,750	899,750	1,078,750	2,621,916	3,330,627	3,897,992
B. Lake Bastrop	175,500	218,000	313,500	623,769	756,462	976,035
C. Camp Swift	668,000	1,025,500	1,103,000	1,273,224	2,711,418	2,946,342
D. Bastrop NW	87,000	136,000	180,500	368,824	436,623	513,821
SUBTOTAL	1,588,250	2,279,250	2,675,750	4,598,862	6,733,299	7,743,554
2. Colorado River (misc.)						
A. Ishittian Village	187,000	452,500	957,500	720,986	1,579,612	3,080,002
B. Bastrop SW	202,500	379,000	445,000	705,055	966,490	1,190,458
C. Hemphill Prairie	184,000	464,500	813,500	498,667	1,516,570	2,668,579
D. Big Sandy Creek	6,000	7,000	9,000	37,788	43,980	56,302
E. Dry Creek	273,500	1,190,000	2,034,000	1,404,764	4,646,728	7,681,299
SUBTOTAL	853,000	2,493,000	4,259,000	3,120,870	8,070,039	13,440,783
3. Cedar Creek						
A. Lower Cedar Creek	67,750	81,750	127,750	311,707	391,741	648,286
B. Middle Cedar Creek	392,000	1,031,000	1,873,000	1,102,659	3,118,882	6,309,732
C. Upper Cedar Creek *	206,750	280,250	409,250	878,059	1,043,047	1,275,277
SUBTOTAL	666,500	1,393,000	2,410,000	2,177,084	4,333,891	7,859,563
4. Walnut Creek	13,000	15,000	21,000	80,738	92,865	128,945
5. South Cedar Creek	16,000	17,000	28,000	98,909	104,940	170,550
STUDY AREA TOTAL	3,136,750	4,197,250	9,393,750	9,295,438	17,216,976	27,555,111

* Does not include the Western portion to be considered with the Big Sandy Creek/Cedar Creek Extended Study Area in the Final Draft Report.

TABLE 2.4b
WASTEWATER FLOW PROJECTIONS
LOW SERIES W/MAX. A CONSERVATION
(INTERIM REPORT)

Drainage Basin/Sub-basin	POPULATION			COMM/IND LAND USE (ACRES)		
	1990	2000	2010	1990	2000	2010
1. Piney Creek						
A. Bastrop	4,450	5,060	6,150	265	375	415
B. Lake Bastrop	880	1,080	1,310	110	140	150
C. Camp Swift	1,280	2,880	4,280	720	850	870
D. Bastrop Hill	570	610	680	40	100	110
SUBTOTAL	7,180	9,630	12,420	1,135	1,465	1,545
2. Colorado River (misc.)						
A. Tahitian Village	1,000	2,000	3,000	100	270	610
B. Bastrop SW	1,050	1,140	1,500	130	320	360
C. Hemphill Prairie	440	1,520	3,150	110	210	410
D. Big Sandy Creek	60	70	90	0	0	0
E. Dry Creek	1,710	6,050	9,250	30	280	310
SUBTOTAL	4,260	10,780	16,990	370	1,080	1,690
3. Cedar Creek						
A. Lower Cedar Creek	390	430	590	25	25	25
B. Middle Cedar Creek	720	3,210	6,580	220	460	740
C. Upper Cedar Creek*	1,320	1,500	1,730	85	195	285
SUBTOTAL	2,430	5,140	8,900	330	680	1,050
4. Walnut Creek	130	150	210	0	0	0
5. South Cedar Creek	160	170	280	0	0	0
STUDY AREA TOTAL	14,160	25,870	38,800	1,835	3,225	4,285

Drainage Basin/Sub-basin	AVERAGE WET WEATHER FLOW (GPD)			PEAK WET WEATHER FLOW (GPD)		
	1990	2000	2010	1990	2000	2010
1. Piney Creek						
A. Bastrop	643,750	768,950	875,250	2,553,473	2,873,495	3,323,784
B. Lake Bastrop	170,500	207,000	230,600	595,990	706,377	813,989
C. Camp Swift	668,000	877,500	990,500	1,273,224	2,043,278	2,626,224
D. Bastrop Hill	87,000	134,800	147,200	368,824	431,909	470,945
SUBTOTAL	1,569,250	1,988,250	2,243,550	4,510,141	5,667,398	6,745,997
2. Colorado River (misc.)						
A. Tahitian Village	175,000	372,500	697,500	655,000	1,212,084	1,883,678
B. Bastrop SW	202,500	351,300	406,500	705,055	886,776	1,072,259
C. Hemphill Prairie	126,500	277,100	541,200	346,595	901,077	1,737,763
D. Big Sandy Creek	6,000	6,700	8,100	37,788	42,695	52,472
E. Dry Creek	193,500	684,800	931,300	986,545	2,923,830	4,170,686
SUBTOTAL	703,500	1,692,400	2,584,600	2,539,013	5,544,556	8,252,933
3. Cedar Creek						
A. Lower Cedar Creek	57,750	60,550	71,750	253,817	272,244	345,367
B. Middle Cedar Creek	237,000	591,300	1,037,200	588,898	1,828,675	3,391,478
C. Upper Cedar Creek*	195,750	290,850	374,450	818,661	978,314	1,143,719
SUBTOTAL	490,500	942,700	1,483,400	1,588,498	2,937,295	4,658,531
4. Walnut Creek	13,000	14,400	18,600	80,738	90,351	119,008
5. South Cedar Creek	16,000	16,700	24,400	98,909	103,688	155,823
STUDY AREA TOTAL	2,792,250	4,654,450	6,354,550	8,177,909	13,273,191	18,413,245

* Does not include the Western portion to be considered with the Maha Creek/Cedar Creek Extended Study Area in the Final Draft Report.

TABLE 2.4d
WASTEWATER FLOW PROJECTIONS
HIGH SERIES W/ MAX. * CONSERVATION
(INTERIM REPORT)

Drainage Basin/Sub-basin	POPULATION			COMM/IND LAND USE (ACRES)		
	1990	2000	2010	1990	2000	2010
1. Piney Creek						
A. Bastrop	4,590	5,810	6,850	265	425	525
B. Lake Bastrop	930	1,130	1,410	110	140	230
C. Camp Swift	1,280	3,880	4,280	720	850	900
D. Bastrop IH	570	610	680	40	100	150
SUBTOTAL	7,370	11,430	13,220	1,135	1,515	1,805
2. Colorado River (misc.)						
A. Tahitian Village	1,120	2,500	5,000	100	270	610
B. Bastrop SH	1,050	1,240	1,600	130	340	380
C. Hemphill Prairie	640	2,320	4,310	160	310	510
D. Big Sandy Creek	60	70	90	0	0	0
E. Dry Creek	2,510	8,600	14,940	30	440	720
SUBTOTAL	5,380	14,730	25,940	420	1,360	2,220
3. Cedar Creek						
A. Lower Cedar Creek	490	630	1,090	25	25	25
B. Middle Cedar Creek	1,520	4,910	11,380	320	720	980
C. Upper Cedar Creek*	1,430	1,640	1,880	85	155	295
SUBTOTAL	3,440	7,180	14,350	430	900	1,300
4. Walnut Creek	130	150	210	0	0	0
5. South Cedar Creek	160	170	280	0	0	0
STUDY AREA TOTAL	16,480	33,660	54,000	1,985	3,775	5,325

Drainage Basin/Sub-basin	AVERAGE WET WEATHER FLOW (GPD)			PEAK WET WEATHER FLOW (GPD)		
	1990	2000	2010	1990	2000	2010
1. Piney Creek						
A. Bastrop	657,750	863,150	1,010,950	2,621,916	3,214,094	3,686,749
B. Lake Bastrop	175,500	212,000	299,100	623,769	733,871	922,772
C. Camp Swift	668,000	947,500	1,013,000	1,273,224	2,450,496	2,648,724
D. Bastrop IH	87,000	134,800	177,200	368,824	431,909	500,945
SUBTOTAL	1,588,250	2,157,450	2,500,250	4,598,862	6,380,468	7,246,286
2. Colorado River (misc.)						
A. Tahitian Village	187,000	411,100	841,100	720,986	1,434,362	2,702,284
B. Bastrop SH	202,500	373,300	428,500	705,055	945,184	1,130,083
C. Hemphill Prairie	184,000	414,100	703,400	498,667	1,338,417	2,304,794
D. Big Sandy Creek	6,000	6,700	8,100	37,788	42,695	52,472
E. Dry Creek	273,500	1,007,300	1,661,100	1,404,764	4,095,074	6,644,613
SUBTOTAL	853,000	2,212,500	3,642,200	3,120,870	7,288,516	11,874,343
3. Cedar Creek						
A. Lower Cedar Creek	67,750	77,550	109,750	311,707	375,274	580,326
B. Middle Cedar Creek	392,000	929,300	1,577,200	1,102,659	2,788,123	5,452,294
C. Upper Cedar Creek*	206,750	273,950	395,750	878,059	1,020,044	1,226,589
SUBTOTAL	666,500	1,280,800	2,082,700	2,177,084	3,986,526	6,943,907
4. Walnut Creek	13,000	14,400	18,600	80,738	90,351	119,008
5. South Cedar Creek	16,000	16,700	24,400	98,909	103,688	155,823
STUDY AREA TOTAL	3,136,750	5,681,850	8,268,150	9,295,438	16,485,419	24,341,249

* Does not include the Western portion to be considered with the Maha Creek/Cedar Creek Extended Study Area in the Final Draft Report.

APPENDIX E:
SUMMARY OF DESIGN CRITERIA
USED FOR SIZING IMPROVEMENTS

Modifications to Flow Projection Methodology

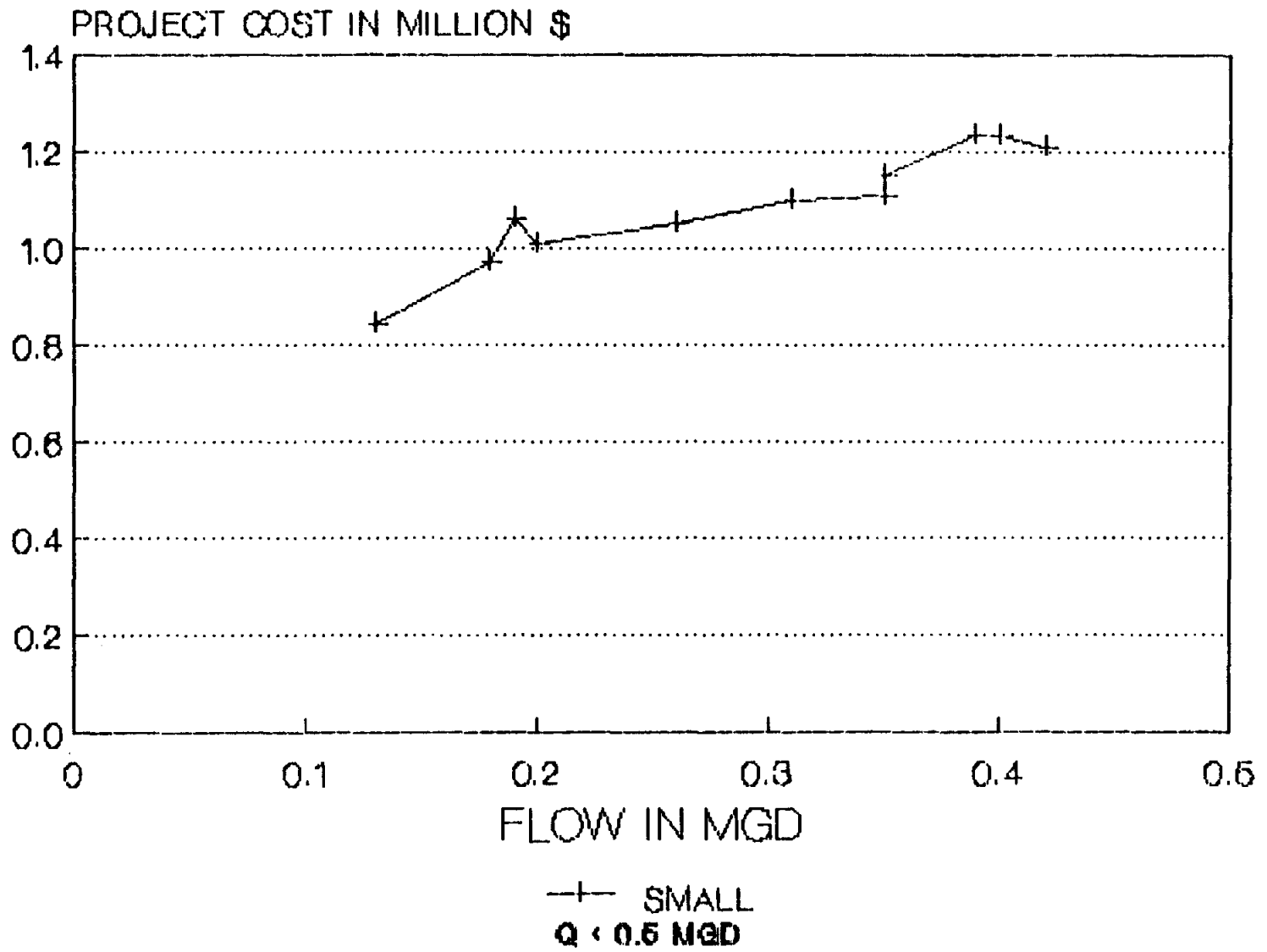
In response to comments from LCRA and additional analysis of the wastewater flow projections, the projection methodology has been refined from the methodology used for the Initial Report. The first revision concerns the per capita rates for domestic flow. In the Initial Report, two conservation scenarios were used: moderate conservation (80 gpcd) and maximum conservation (70 gpcd). It was noted that there was little difference in the total flows for the two scenarios and there was also concern about obtaining a discharge permit based on less than typical rates. For this Interim Report, facilities have been designed based on flow projections with "no conservation" using a rate of 100 gpcd. For comparison, the maximum conservation scenario has been retained, using 70 gpcd for all new population beyond the year 1990.

Another revision involves the commercial/industrial flow component. A "typical" rate of 1000 gallons per acre per day has been used in both reports due to the lack of knowledge concerning specific types of industry to be expected. However, in this Interim Report, the commercial/industrial acreage has been multiplied by a factor of 0.75, resulting in a reduced value for this flow component. This factor is included to account for land which is assigned for commercial use but is lost to roads, parking lots, or other non-commercial use, or is unusable for other reasons such as terrain, soils, etc.

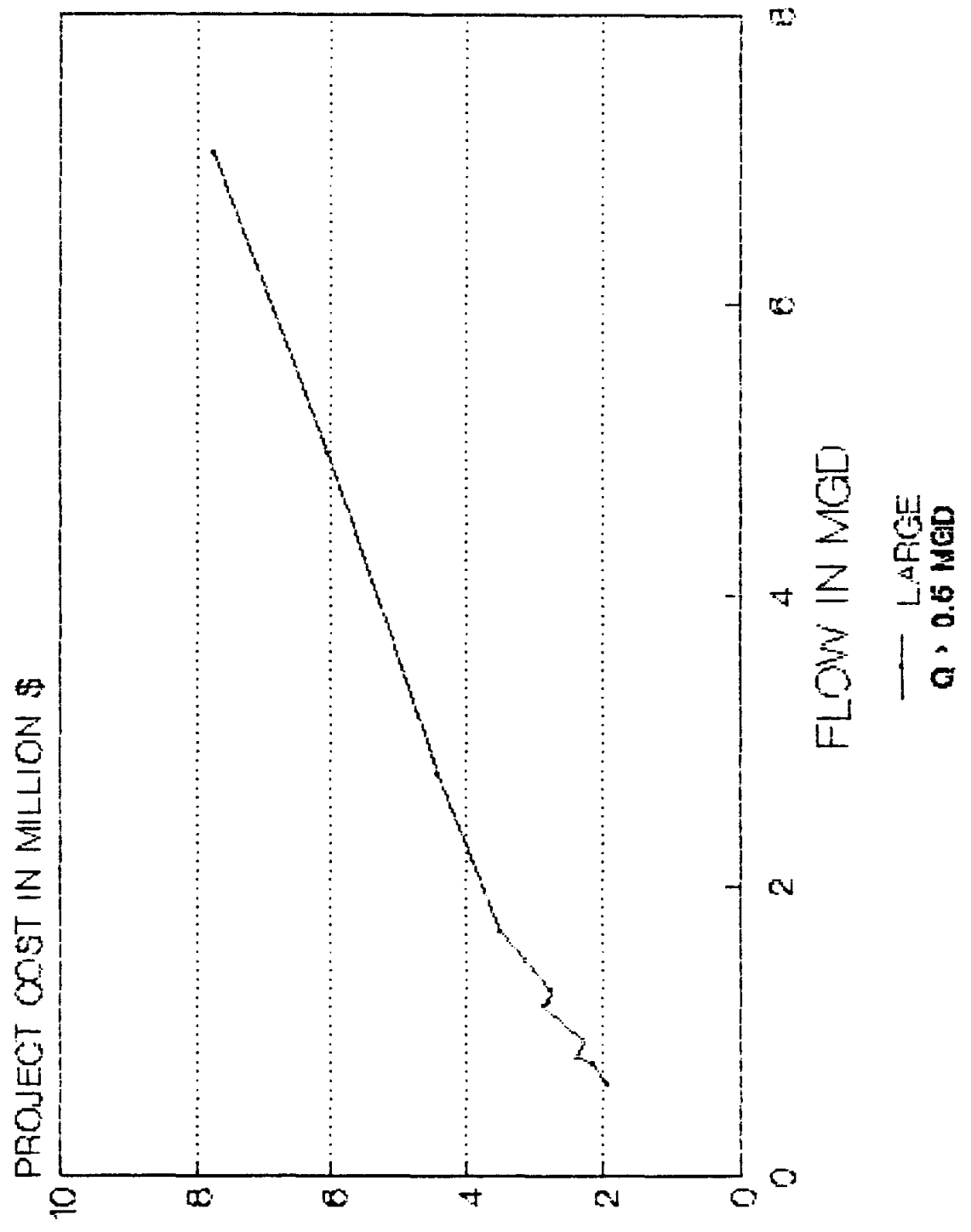
The infiltration/inflow (I/I) component has also been revised. Since the main impact of I/I is the peak which occurs during or following a storm, this component has been removed from the average flows projected. The I/I rate remaining in the peak flows has been increased from 100 gpcd to 200 gpcd to better reflect Freese and Nichols' past experience with wastewater flows. Although the lower value may be obtainable with strict control over construction standards, it is prudent to maintain reserve capacity in large interceptors, and the higher value for I/I will reduce the risk of undersizing lines, without greatly increasing the project cost.

APPENDIX F:
CAPDET
COST ANALYSIS SUMMARIES

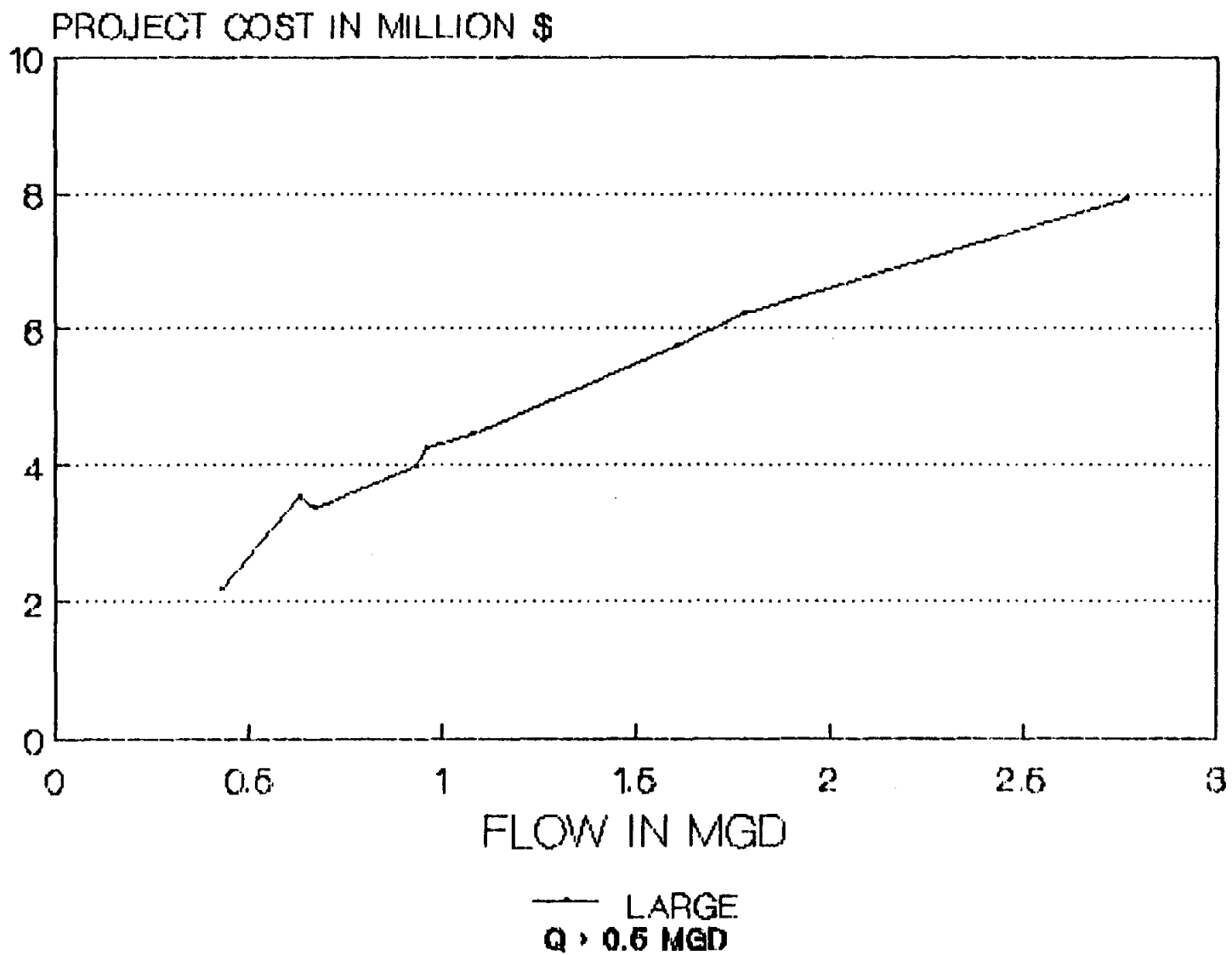
CAPDET WWTP COSTS VS. FLOW
10/16/2 EFFLUENT



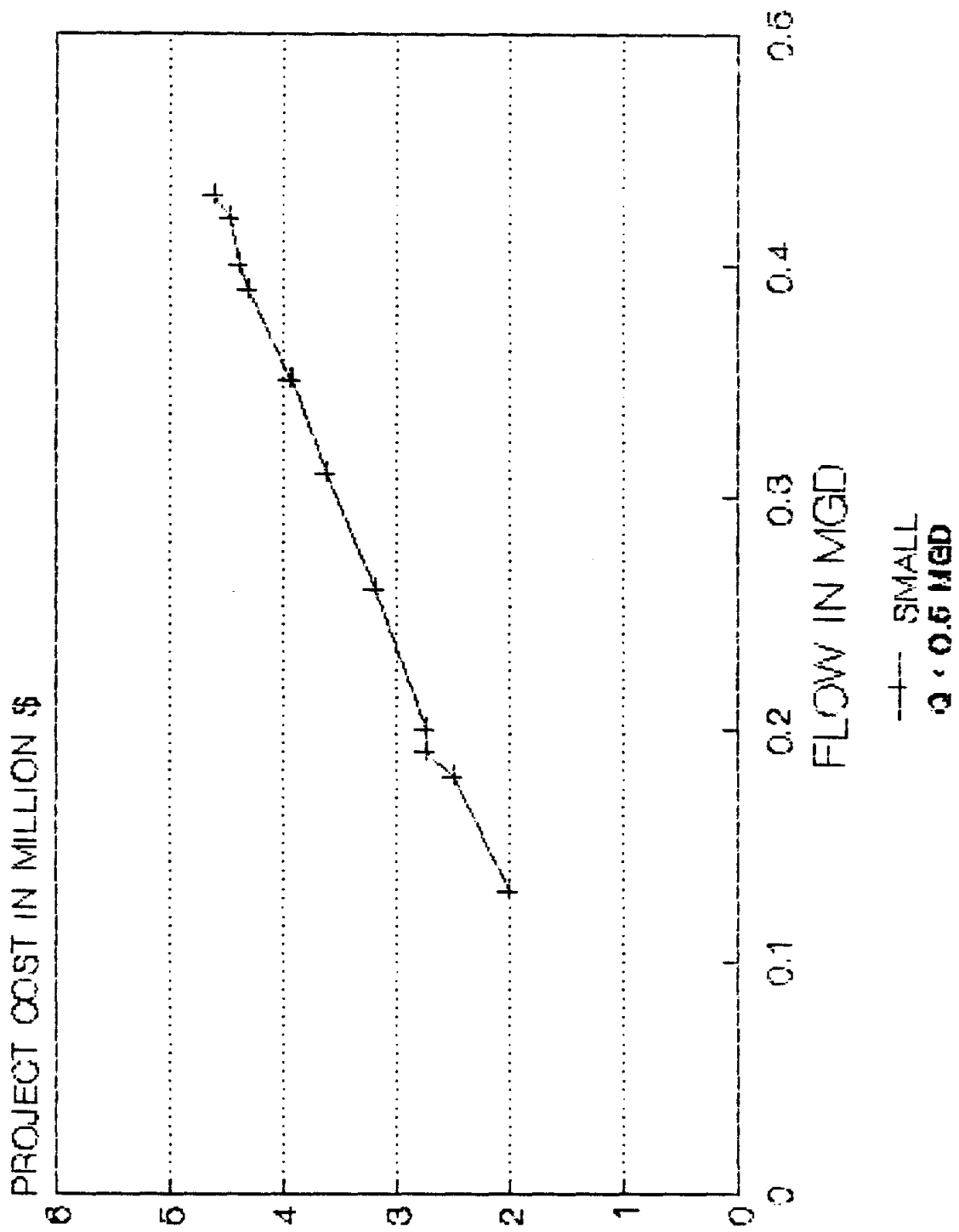
CAPDET WWTP COSTS VS. FLOW 10/15/2 EFFLUENT



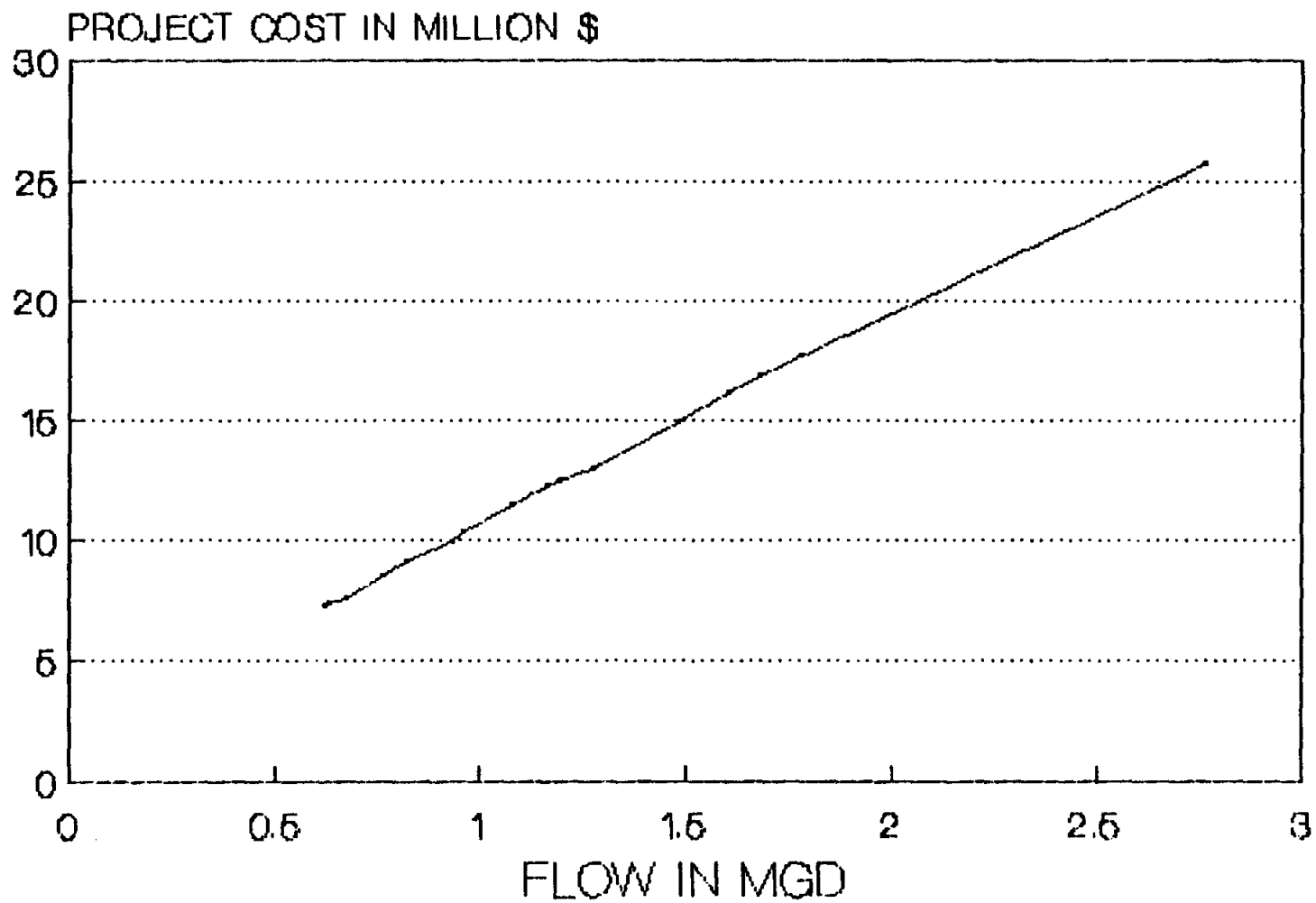
CAPDET WWTP COSTS VS. FLOW
5/5/2/1 EFFLUENT



CAPDET WWTP COSTS VS. FLOW 20/20 EFFLUENT W/ IRRIGATION



CAPDET WWTP COSTS VS. FLOW 20/20 EFFLUENT W/ IRRIGATION



Run # 301

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0 HAUL 0

Facility # 2

Q = 2.76

Y 1990

Discharge

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	501033	50430	4275	2815	15241	3507	0	25838
PRELIMIN*	181525	17909	5742	2421	1664	4538	0	14365
OXID DIT	697527	76287	11795	0	90902	4755	0	107452
0 SEC CL	556910	54945	7559	3240	671	5569	0	17039
RCY PUMP	228204	23659	3403	2208	11990	1597	0	19198
CHLORINA	137549	14490	6358	869	7669	5204	11882	31982
POST AER	496	48	0	0	0	0	0	0
DRY BEDS	132527	13189	4660	1627	0	1192	0	7479
HAUL & LF	73383	15870	109	0	0	12505	0	12614
SUB TOTAL	2509159	266830	43905	13183	128140	38869	11882	235967

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD	552015 \$	
SUB TOTAL (OTHER DIRECT)	552015 \$	TOTAL CONSTRUCTION COST 3061174 \$

INDIRECT COSTS

MISC NON CONST COSTS	153058 \$
ADMIN/LEGAL	61223 \$
201 PLANNING	0 \$
A/E DESIGN FEE	201264 \$
INSPECTION	61223 \$
CONTINGENCIES	244893 \$
TECHNICAL COSTS	61223 \$
SUB TOTAL (INDIRECT)	782884 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 58500 \$ (13. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 13377 \$/YR

TOTAL PROJECT COST	4422086 \$	TOTAL CONSTRUCTION COST	3061174 \$
FINAL YEAR O & M	271360 \$/YR	TOTAL STEP III COST	4220822 \$
INITIAL YEAR O & M	271360 \$/YR	PRESENT WORTH (APP. A)	7413723 \$

Run # 301
4 1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.101E+07
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.442E+07 \$
EPA ELIGIBLE COST				0.436E+07 \$
LOCAL SHARE				0.455E+07 \$
ANNUAL DEBT SERVICE				0.464E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.662E+05 \$/YEAR
CONTINGENCY RESERVE				0.662E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.868E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.861E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.861E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.861E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.861E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.718E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.718E+01 \$/MONTH

***** Run#302

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0 HAUL 0

Facility#2

Q=4.97
 Y 2000
 Discharge

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	514769	52210	5114	3426	26823	3603	0	38966
PRELIMIN*	257004	25356	7843	3300	2185	6425	0	19753
OXID DIT	1115079	123812	16243	0	163689	7950	0	187882
0 SEC CL	766250	75599	10770	4745	809	7662	0	23986
RCY PUMP	293592	30429	3671	2464	21561	2055	0	29751
CHLORINA	185411	19401	8692	1571	7669	6116	21397	45445
POST AER	894	88	0	0	0	0	0	0
DRY BEDS	230345	22931	5927	2117	0	2073	0	10117
HAUL & LF	76412	16168	197	0	0	12505	0	12702
SUB TOTAL	3439760	365998	58462	17627	222740	48391	21397	368602

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 756747 \$

SUB TOTAL (OTHER DIRECT) 756747 \$ TOTAL CONSTRUCTION COST 4196507 \$

INDIRECT COSTS

MISC NON CONST COSTS 209825 \$
 ADMIN/LEGAL 83930 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 266977 \$
 INSPECTION 83930 \$
 CONTINGENCIES 335720 \$
 TECHNICAL COSTS 83930 \$

SUB TOTAL (INDIRECT) 1064312 \$

LAND COSTS 72000 \$ (16. ACRES)

INTEREST DURING CONSTRUCTION 709931 \$

ADMINISTRATIVE COST 18287 \$/YR
 LABORATORY COST 24052 \$/YR

TOTAL PROJECT COST 6042750 \$ TOTAL CONSTRUCTION COST 4196507 \$
 FINAL YEAR O & M 410959 \$/YR TOTAL STEP III COST 5775773 \$
 INITIAL YEAR O & M 410959 \$/YR PRESENT WORTH (APP. A) 10622904 \$

Run #302
42000

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.181E+07
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.604E+07 \$
EPA ELIGIBLE COST				0.597E+07 \$
LOCAL SHARE				0.622E+07 \$
ANNUAL DEBT SERVICE				0.634E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.905E+05 \$/YEAR
CONTINGENCY RESERVE				0.905E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.123E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.676E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.676E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.676E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.676E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.564E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.564E+01 \$/MONTH

Run# 303

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0 HAUL 0

Facility# 2

Q=7.04

Y 2010
 Discharge

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	568101	57680	5686	3864	36116	3976	0	49642
PRELIMIN*	320146	31586	9549	4028	2567	8003	0	24147
OXID DIT	1511108	168146	19625	0	231734	9532	0	260891
0 SEC CL	938120	92556	13278	5969	991	9381	0	29619
RCY PUMP	423179	43915	3842	2643	30498	2962	0	39945
CHLORINA	234725	24266	10456	2239	7955	7140	30292	58082
POST AER	1265	124	0	0	0	0	0	0
DRY BEDS	342320	34082	8044	3253	0	3080	0	14377
HAUL & LF	79211	16445	280	0	0	12505	0	12785
SUB TOTAL	4418180	468803	70763	21997	309864	56583	30292	489488

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 971999 \$

SUB TOTAL (OTHER DIRECT) 971999 \$ TOTAL CONSTRUCTION COST 5390179 \$

INDIRECT COSTS

MISC NON CONST COSTS 269508 \$
 ADMIN/LEGAL 107803 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 334764 \$
 INSPECTION 107803 \$
 CONTINGENCIES 431214 \$
 TECHNICAL COSTS 107803 \$

SUB TOTAL (INDIRECT) 1358895 \$

LAND COSTS

81000 \$ (18. ACRES)
 INTEREST DURING CONSTRUCTION 909253 \$

ADMINISTRATIVE COST

LABORATORY COST 21999 \$/YR
 25352 \$/YR

TOTAL PROJECT COST 7739327 \$ TOTAL CONSTRUCTION COST 5390179 \$
 FINAL YEAR O & M 536853 \$/YR TOTAL STEP III COST 7404563 \$
 INITIAL YEAR O & M 536853 \$/YR PRESENT WORTH (APP. A) 13723615 \$

Run# 303
42010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.257E+07
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.774E+07 \$
EPA ELIGIBLE COST				0.766E+07 \$
LOCAL SHARE				0.797E+07 \$
ANNUAL DEBT SERVICE				0.812E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.116E+06 \$/YEAR
CONTINGENCY RESERVE				0.116E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.158E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.615E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.615E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.615E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.615E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.513E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.513E+01 \$/MONTH

Run#304

LIQUID RAW 0 PREL 0 ACTI 0 CHLO 0
 SECONDARY DRYI 0

City of Bastrop
 Old 0.34 magd
 WWTP-Rehab

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	72037	7439	3504	2227	1875	0	0	7606
SCREENS	24085	2599	72	56	62	481	0	671
ACT SLUD	170481	18314	9752	4437	1657	3094	0	18940
CHLORINA	60755	6665	1444	214	7669	2963	731	13021
DRY BEDS	59718	5920	4161	1401	0	537	0	6099
SUB TOTAL	387078	40939	18936	8338	11264	7077	731	46337

DIRECT COSTS

PROFIT/OVERHEAD 85157 \$

SUB TOTAL (OTHER DIRECT) 85157 \$

TOTAL CONSTRUCTION COST 472235 \$

INDIRECT COSTS

MISC NON CONST COSTS 23611 \$
 ADMIN/LEGAL 9444 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 39655 \$
 INSPECTION 9444 \$
 CONTINGENCIES 37778 \$
 TECHNICAL COSTS 9444 \$

SUB TOTAL (INDIRECT) 129375 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 0 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 4394 \$/YR

TOTAL PROJECT COST	681700 \$	TOTAL CONSTRUCTION COST	472235 \$
FINAL YEAR O & M	66763 \$/YR	TOTAL STEP III COST	642045 \$
INITIAL YEAR O & M	66763 \$/YR	PRESENT WORTH (APP. A)	1472508 \$

Run # 304

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
I NUMBER OF BILLING UNITS		0.445E+06
I EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.682E+06 \$
EPA ELIGIBLE COST		0.682E+06 \$
LOCAL SHARE		0.702E+06 \$
ANNUAL DEBT SERVICE		0.715E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.102E+05 \$/YEAR
CONTINGENCY RESERVE		0.102E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.159E+06 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.128E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.128E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.357E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.357E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.297E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.297E+01 \$/MONTH

Run # 305

LIQUID SEWE 0

City of Bastrop

New 1.06 mgd WWTP
Capital Cost = \$465,000

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	465000	50486	0	0	0	0	0	0
SUB TOTAL	465000	50486	0	0	0	0	0	0

DIRECT COSTS

PROFIT/OVERHEAD 102300 \$
 SUB TOTAL (OTHER DIRECT) 102300 \$

TOTAL CONSTRUCTION COST 567300 \$

INDIRECT COSTS

MISC NON CONST COSTS 28365 \$
 ADMIN/LEGAL 11346 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 46139 \$
 INSPECTION 11346 \$
 CONTINGENCIES 45384 \$
 TECHNICAL COSTS 0 \$
 SUB TOTAL (INDIRECT) 142580 \$

LAND COSTS 0 \$ (10. ACRES)
 INTEREST DURING CONSTRUCTION 94502 \$

ADMINISTRATIVE COST 15428 \$/YR
 LABORATORY COST 44120 \$/YR

TOTAL PROJECT COST 804382 \$ TOTAL CONSTRUCTION COST 567300 \$
 FINAL YEAR O & M 59549 \$/YR TOTAL STEP III COST 758243 \$
 INITIAL YEAR O & M 59549 \$/YR PRESENT WORTH (APP. A) 1855192 \$

USER CHARGE SUMMARY

#305

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.235E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.804E+06 \$
EPA ELIGIBLE COST				0.804E+06 \$
LOCAL SHARE				0.829E+06 \$
ANNUAL DEBT SERVICE				0.844E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.121E+05 \$/YEAR
CONTINGENCY RESERVE				0.121E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.168E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.715E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.715E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.715E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.715E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.596E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.596E+01 \$/MONTH

Run # 306

LIQUID RAW 0 PREL 0 EXTE 0 CHLO 0
 SECONDARY DRYI 0 HAUL 0

City of Bastrop

New 1.06 mgd WW
 O+M Costs

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	292622	29468	3575	2363	6367	2048	0	14353
PRELIMIN*	97731	9642	4155	1846	1068	2443	0	9512
EXTE AER	636727	63344	14743	6324	98224	22389	0	141680
A SEC CL	220959	21800	2854	1248	492	2209	0	6803
RCY PUMP	150071	15545	3010	1938	4615	1050	0	10613
CHLORINA	102578	11040	2644	338	7669	4569	2281	17501
DRY BEDS	101000	10050	3150	1112	0	909	0	5171
HAUL & LF	70994	15634	42	0	0	12505	0	12547
BLOWERS	290211	28632	0	0	0	0	0	0
SUB TOTAL	1962897	205157	34177	15172	118438	48124	2281	218180

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS
 PROFIT/OVERHEAD

431837 \$

SUB TOTAL (OTHER DIRECT)

431837 \$

TOTAL CONSTRUCTION COST 2394734 \$

INDIRECT COSTS
 MISC NON CONST COSTS
 ADMIN/LEGAL
 201 PLANNING
 A/E DESIGN FEE
 INSPECTION
 CONTINGENCIES
 TECHNICAL COSTS

119736 \$
 47894 \$
 0 \$
 161827 \$
 47894 \$
 191578 \$
 47894 \$

SUB TOTAL (INDIRECT)

616823 \$

LAND COSTS

0 \$ (11. ACRES)

INTEREST DURING CONSTRUCTION

400913 \$

ADMINISTRATIVE COST
 LABORATORY COST

8043 \$/YR
 19032 \$/YR

TOTAL PROJECT COST	3412470 \$	TOTAL CONSTRUCTION COST	2394734 \$
FINAL YEAR O & M	245271 \$/YR	TOTAL STEP III COST	3250643 \$
INITIAL YEAR O & M	245271 \$/YR	PRESENT WORTH (APP. A)	6063781 \$

Run # 306

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
I NUMBER OF BILLING UNITS				0.232E+06
I EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.341E+07 \$
EPA ELIGIBLE COST				0.341E+07 \$
LOCAL SHARE				0.351E+07 \$
ANNUAL DEBT SERVICE				0.358E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.511E+05 \$/YEAR
CONTINGENCY RESERVE				0.511E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.706E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.182E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.182E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.305E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.305E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.254E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.254E+02 \$/MONTH

Run # 307

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0 HAUL 0

Facility # 4

Q = 0.93

Y 1990

Discharge

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	288529	29064	3521	2225	5633	2019	0	13398
PRELIMIN*	79905	7883	3975	1702	1005	1997	0	8679
OXID DIT	263181	29066	6527	0	30630	2397	0	39554
O SEC CL	320107	31582	3927	1617	560	3201	0	9305
RCY PUMP	131978	13661	2959	1822	4050	923	0	9754
CHLORINA	101233	10907	3566	428	7669	4312	4004	19979
POST AER	167	16	0	0	0	0	0	0
DRY BEDS	30799	3055	2986	1010	0	277	0	4273
HAUL & LF	70806	15615	37	0	0	12505	0	12542
SUB TOTAL	1286708	140854	27500	8806	49550	27633	4004	117484

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 283075 \$

SUB TOTAL (OTHER DIRECT) 283075 \$

TOTAL CONSTRUCTION COST 1569783 \$

INDIRECT COSTS

MISC NON CONST COSTS 78489 \$

ADMIN/LEGAL 31395 \$

201 PLANNING 0 \$

A/E DESIGN FEE 111570 \$

INSPECTION 31395 \$

CONTINGENCIES 125582 \$

TECHNICAL COSTS 31395 \$

SUB TOTAL (INDIRECT) 409826 \$

LAND COSTS

45000 \$ (10. ACRES)

INTEREST DURING CONSTRUCTION 269526 \$

ADMINISTRATIVE COST

7502 \$/YR

LABORATORY COST

18658 \$/YR

TOTAL PROJECT COST 2294135 \$ TOTAL CONSTRUCTION COST 1569783 \$

FINAL YEAR O & M 143657 \$/YR TOTAL STEP III COST 2182565 \$

INITIAL YEAR O & M 143657 \$/YR PRESENT WORTH (APP. A) 3910130 \$

307
Y 1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.339E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.229E+07 \$
EPA ELIGIBLE COST				0.225E+07 \$
LOCAL SHARE				0.236E+07 \$
ANNUAL DEBT SERVICE				0.241E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.344E+05 \$/YEAR
CONTINGENCY RESERVE				0.344E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.453E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.133E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.133E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.133E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.133E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.111E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.111E+02 \$/MONTH

Run#308

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0 HAUL 0

Facility # 4

Q=1.27

COST SUMMARY

Y2000
 Discharge

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	302017	30412	3652	2339	7535	2114	0	15640
PRELIMIN*	102979	10160	4417	1881	1161	2574	0	10033
OXID DIT	374651	39499	7732	0	41828	1852	0	51412
O SEC CL	377275	37222	4737	1972	590	3772	0	11071
RCY PUMP	155261	16084	3080	1923	5527	1086	0	11616
CHLORINA	110386	11810	4208	503	7669	4586	5467	22433
POST AER	228	22	0	0	0	0	0	0
DRY BEDS	47775	4750	3392	1157	0	429	0	4978
HAUL &LF	71295	15664	50	0	0	12505	0	12555
SUB TOTAL	1541871	165627	31271	9777	64313	28921	5467	139738

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD	339211 \$		
SUB TOTAL (OTHER DIRECT)	339211 \$	TOTAL CONSTRUCTION COST	1881082 \$

INDIRECT COSTS

MISC NON CONST COSTS	94054 \$
ADMIN/LEGAL	37621 \$
201 PLANNING	0 \$
A/E DESIGN FEE	130775 \$
INSPECTION	37621 \$
CONTINGENCIES	150486 \$
TECHNICAL COSTS	37621 \$
SUB TOTAL (INDIRECT)	488178 \$

LAND COSTS

INTEREST DURING CONSTRUCTION	49500 \$	(11. ACRES)
	321997 \$	

ADMINISTRATIVE COST

LABORATORY COST	8854 \$/YR
	19560 \$/YR

TOTAL PROJECT COST	2740757 \$	TOTAL CONSTRUCTION COST	1881082 \$
FINAL YEAR O & M	168167 \$/YR	TOTAL STEP III COST	2609982 \$
INITIAL YEAR O & M	168167 \$/YR	PRESENT WORTH (APP. A)	4606438 \$

#308

USER CHARGE SUMMARY

2000

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
D NUMBER OF BILLING UNITS		0.464E+06
D EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.274E+07 \$
EPA ELIGIBLE COST		0.269E+07 \$
LOCAL SHARE		0.282E+07 \$
ANNUAL DEBT SERVICE		0.287E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.411E+05 \$/YEAR
CONTINGENCY RESERVE		0.411E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.538E+06 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.116E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.116E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.116E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.116E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.967E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.967E+01 \$/MONTH

Run # 309

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0 HAUL 0

Facility # 4

Q=1.48

Y2010

Discharge

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	343046	34608	3716	2396	8653	2401	0	17166
PRELIMIN*	119121	11752	4646	1974	1245	2978	0	10843
OXID DIT	475917	51661	8388	0	48579	3437	0	60404
0 SEC CL	403077	39768	5183	2169	605	4030	0	11987
RCY PUMP	170906	17711	3140	1974	6417	1196	0	12727
CHLORINA	112070	11976	4557	543	7669	4601	6350	23720
POST AER	265	26	0	0	0	0	0	0
DRY BEDS	63510	6317	3606	1235	0	571	0	5412
HAUL & LF	71587	15692	58	0	0	12505	0	12563
SUB TOTAL	1759504	189514	33298	10294	73171	31721	6350	154822

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD	387090 \$	
SUB TOTAL (OTHER DIRECT)	387090 \$	TOTAL CONSTRUCTION COST 2146594 \$

INDIRECT COSTS

MISC NON CONST COSTS	107329 \$
ADMIN/LEGAL	42931 \$
201 PLANNING	0 \$
A/E DESIGN FEE	146911 \$
INSPECTION	42931 \$
CONTINGENCIES	171727 \$
TECHNICAL COSTS	42931 \$
SUB TOTAL (INDIRECT)	554760 \$

LAND COSTS

INTEREST DURING CONSTRUCTION	49500 \$	(11. ACRES)
	366207 \$	

ADMINISTRATIVE COST

LABORATORY COST	9587 \$/YR
	20009 \$/YR

TOTAL PROJECT COST	3117061 \$	TOTAL CONSTRUCTION COST	2146594 \$
FINAL YEAR O & M	184433 \$/YR	TOTAL STEP III COST	2970150 \$
INITIAL YEAR O & M	184433 \$/YR	PRESENT WORTH (APP. A)	5160183 \$

309

2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.538E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.312E+07 \$
EPA ELIGIBLE COST				0.307E+07 \$
LOCAL SHARE				0.321E+07 \$
ANNUAL DEBT SERVICE				0.327E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.467E+05 \$/YEAR
CONTINGENCY RESERVE				0.467E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.605E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.112E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.112E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.112E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.112E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.937E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.937E+01 \$/MONTH

Run #310

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Facility #4

Q=0.93

Y1990
 Irrigation

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	288529	29064	3521	2402	5633	2019	0	13575
PRELIMIN*	79905	7883	3975	1838	1005	1997	0	8815
OXID DIT	254109	28038	6527	0	29616	2374	0	38517
0 SEC CL	288825	28495	3433	1524	540	2888	0	8385
RCY PUMP	131978	13661	2959	1967	4050	923	0	9899
CHLORINA	101233	10907	3566	462	7669	4312	4004	20013
SLOW INF	2507402	265390	21584	11706	0	7399	0	40689
INT PUMP	168037	17413	3560	2433	4036	1176	0	11205
DRY BEDS	31183	3094	2935	1072	0	280	0	4287
HAUL & LF	70751	15610	35	0	0	12505	0	12540
SUB TOTAL	3921956	419559	52100	23406	52554	35877	4004	167925

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 862830 \$

SUB TOTAL (OTHER DIRECT) 862830 \$

TOTAL CONSTRUCTION COST 4784787 \$

INDIRECT COSTS

MISC NON CONST COSTS 239239 \$

ADMIN/LEGAL 95695 \$

201 PLANNING 0 \$

A/E DESIGN FEE 300516 \$

INSPECTION 95695 \$

CONTINGENCIES 382782 \$

TECHNICAL COSTS 95695 \$

SUB TOTAL (INDIRECT) 1209622 \$

LAND COSTS

2763074 \$ (614. ACRES)

INTEREST DURING CONSTRUCTION 1165839 \$

ADMINISTRATIVE COST

7502 \$/YR

LABORATORY COST

18658 \$/YR

TOTAL PROJECT COST 9923322 \$ TOTAL CONSTRUCTION COST 4784787 \$

FINAL YEAR O & M 194103 \$/YR TOTAL STEP III COST 9622806 \$

INITIAL YEAR O & M 194103 \$/YR PRESENT WORTH (APP. A) 10859870 \$

Run#318
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.339E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.992E+07 \$
EPA ELIGIBLE COST				0.716E+07 \$
LOCAL SHARE				0.101E+08 \$
ANNUAL DEBT SERVICE				0.103E+07 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.148E+06 \$/YEAR
CONTINGENCY RESERVE				0.148E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.152E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.448E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.448E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.448E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.448E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.374E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.374E+02 \$/MONTH

***** Run # 311

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Facility # 4

***** Q=1.27

COST SUMMARY

Y2000 Irrigation

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	302017	30412	3652	2543	7535	2114	0	15844
PRELIMIN*	102979	10160	4417	2046	1161	2574	0	10198
OXID DIT	368541	38891	7732	0	40444	1848	0	50024
0 SEC CL	332711	32825	4141	1871	569	3327	0	9908
RCY PUMP	155261	16084	3080	2091	5527	1086	0	11784
CHLORINA	110386	11810	4208	546	7669	4586	5467	22476
SLOW INF	3358452	355326	28168	15511	0	9724	0	53403
INT PUMP	191500	19850	3705	2586	5508	1340	0	13139
DRY BEDS	48651	4837	3334	1236	0	437	0	5007
HAUL & LF	71221	15656	48	0	0	12505	0	12553
SUB TOTAL	5041724	535856	62491	28435	68416	39544	5467	204336

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS
 PROFIT/OVERHEAD 1109179 \$
 SUB TOTAL (OTHER DIRECT) 1109179 \$ TOTAL CONSTRUCTION COST 6150903 \$

INDIRECT COSTS
 MISC NON CONST COSTS 307545 \$
 ADMIN/LEGAL 123018 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 377492 \$
 INSPECTION 123018 \$
 CONTINGENCIES 492072 \$
 TECHNICAL COSTS 123018 \$
 SUB TOTAL (INDIRECT) 1546163 \$

LAND COSTS 3710031 \$ (824. ACRES)
 INTEREST DURING CONSTRUCTION 1518570 \$

ADMINISTRATIVE COST 8854 \$/YR
 LABORATORY COST 19560 \$/YR

TOTAL PROJECT COST 12925668 \$ TOTAL CONSTRUCTION COST 6150903 \$
 FINAL YEAR O & M 232771 \$/YR TOTAL STEP III COST 12548176 \$
 INITIAL YEAR O & M 232771 \$/YR PRESENT WORTH (APP. A) 13855578 \$

Run#311
2000

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
D NUMBER OF BILLING UNITS		0.464E+06
D EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.129E+08 \$
EPA ELIGIBLE COST		0.922E+07 \$
LOCAL SHARE		0.132E+08 \$
ANNUAL DEBT SERVICE		0.134E+07 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.192E+06 \$/YEAR
CONTINGENCY RESERVE		0.192E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.196E+07 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.423E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.423E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.423E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.423E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.353E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.353E+02 \$/MONTH

Run# 312

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Facility# 4

Q=1.48

COST SUMMARY

Y 2010
 Irrigation

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	343046	34608	3716	2615	8653	2401	0	17385
PRELIMIN*	119121	11752	4646	2154	1245	2978	0	11023
OXID DIT	463469	50270	8388	0	46973	3318	0	58679
O SEC CL	358087	35329	4532	2065	583	3580	0	10760
RCY PUMP	170906	17711	3140	2154	6417	1196	0	12907
CHLORINA	112070	11976	4557	593	7669	4601	6350	23770
SLOW INF	3905473	413083	32012	17763	0	11190	0	60965
INT PUMP	204168	21165	3777	2665	6395	1429	0	14266
DRY BEDS	64443	6410	3545	1324	0	579	0	5448
HAUL & LF	71501	15684	56	0	0	12505	0	12561
SUB TOTAL	5812288	617992	68373	31336	77937	43781	6350	227764

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 1278703 \$

SUB TOTAL (OTHER DIRECT) 1278703 \$

TOTAL CONSTRUCTION COST 7090991 \$

INDIRECT COSTS

MISC NON CONST COSTS 354549 \$

ADMIN/LEGAL 141819 \$

201 PLANNING 0 \$

A/E DESIGN FEE 429920 \$

INSPECTION 141819 \$

CONTINGENCIES 567279 \$

TECHNICAL COSTS 141819 \$

SUB TOTAL (INDIRECT) 1777205 \$

LAND COSTS

4277696 \$ (951. ACRES)

INTEREST DURING CONSTRUCTION 1750047 \$

ADMINISTRATIVE COST

9587 \$/YR

LABORATORY COST

20009 \$/YR

TOTAL PROJECT COST 14895940 \$ TOTAL CONSTRUCTION COST 7090991 \$

FINAL YEAR O & M 257376 \$/YR TOTAL STEP III COST 14466020 \$

INITIAL YEAR O & M 257376 \$/YR PRESENT WORTH (APP. A) 15842259 \$

Run# 312
2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.538E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.149E+08 \$
EPA ELIGIBLE COST				0.106E+08 \$
LOCAL SHARE				0.152E+08 \$
ANNUAL DEBT SERVICE				0.155E+07 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.221E+06 \$/YEAR
CONTINGENCY RESERVE				0.221E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.225E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.418E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.418E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.418E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.418E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.349E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.349E+02 \$/MONTH

PINEY CREEK, NOT IC, WWTP, DISCHARGE, YEAR 1 ANALYZE 1 TRAIN NO 1

+Not IA

Run # 313

Facility #4

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
SECONDARY DRYI 0

Q=0.26

Y 1990

Discharge

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	72299	7466	3509	2165	1423	0	0	7097
SCREENS	24087	2599	49	49	57	481	0	636
OXID DIT	102261	11577	8579	0	7629	682	0	16890
RCY PUMP	97424	10061	2510	1457	1127	681	0	5775
0 SEC CL	178225	17583	2429	1009	487	1782	0	5707
CHLORINA	68371	7416	1803	237	7669	3225	1110	14044
POST AER	46	4	0	0	0	0	0	0
DRY BEDS	30561	3028	2444	791	0	275	0	3510
SUB TOTAL	573278	59740	21326	5711	18395	7130	1110	53659

DIRECT COSTS

PROFIT/OVERHEAD 126121 \$

SUB TOTAL (OTHER DIRECT) 126121 \$ TOTAL CONSTRUCTION COST 699399 \$

INDIRECT COSTS

MISC NON CONST COSTS 34969 \$
 ADMIN/LEGAL 13987 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 55260 \$
 INSPECTION 13987 \$
 CONTINGENCIES 55951 \$
 TECHNICAL COSTS 13987 \$

SUB TOTAL (INDIRECT) 188141 \$

LAND COSTS 40500 \$ (9. ACRES)
 INTEREST DURING CONSTRUCTION 123545 \$

ADMINISTRATIVE COST 3794 \$/YR
 LABORATORY COST 15364 \$/YR

TOTAL PROJECT COST 1051585 \$ TOTAL CONSTRUCTION COST 699399 \$
 FINAL YEAR O & M 72833 \$/YR TOTAL STEP III COST 996325 \$
 INITIAL YEAR O & M 72833 \$/YR PRESENT WORTH (APP. A) 1868286 \$

+Not It

Run #313
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.942E+05
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.105E+07 \$
EPA ELIGIBLE COST				0.101E+07 \$
LOCAL SHARE				0.108E+07 \$
ANNUAL DEBT SERVICE				0.110E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.157E+05 \$/YEAR
CONTINGENCY RESERVE				0.157E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.215E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.228E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.228E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.228E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.228E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.190E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.190E+02 \$/MONTH

PINEY CREEK, NOT 1C, WWTP, DISCHARGE, YEAR 2 ANALYZE 1 TRAIN NO 1

*****^{+Act 1A}*****

Run # 314

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0

Facility #4

Q=0.35

4=2000
 Discharge

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	77882	8047	3585	2230	1924	0	0	7739
SCREENS	24140	2605	75	56	62	482	0	675
OXID DIT	116506	13088	9886	0	9809	509	0	20204
RCY PUMP	104385	10787	2609	1529	1523	730	0	6391
O SEC CL	202618	19990	2680	1100	487	2026	0	6293
CHLORINA	72550	7829	2117	262	7669	3341	1502	14891
POST AER	62	6	0	0	0	0	0	0
DRY BEDS	33969	3366	2444	794	0	305	0	3543
SUB TOTAL	632115	65720	23398	5972	21478	7396	1502	59736

DIRECT COSTS

PROFIT/OVERHEAD 139065 \$

SUB TOTAL (OTHER DIRECT) 139065 \$

TOTAL CONSTRUCTION COST 771180 \$

INDIRECT COSTS

MISC NON CONST COSTS 38559 \$
 ADMIN/LEGAL 15423 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 60125 \$
 INSPECTION 15423 \$
 CONTINGENCIES 61694 \$
 TECHNICAL COSTS 15423 \$

SUB TOTAL (INDIRECT) 206647 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 40500 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 4456 \$/YR
 16084 \$/YR

TOTAL PROJECT COST 1153891 \$ TOTAL CONSTRUCTION COST 771180 \$
 FINAL YEAR O & M 80289 \$/YR TOTAL STEP III COST 1093766 \$
 INITIAL YEAR O & M 80289 \$/YR PRESENT WORTH (APP. A) 2054262 \$

+Net IA

Run # 314
2000

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.127E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.115E+07 \$
EPA ELIGIBLE COST				0.111E+07 \$
LOCAL SHARE				0.119E+07 \$
ANNUAL DEBT SERVICE				0.121E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.173E+05 \$/YEAR
CONTINGENCY RESERVE				0.173E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.236E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.185E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.185E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.185E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.185E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.154E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.154E+02 \$/MONTH

PINEY CREEK, NOT 1C, WWTP, DISCHARGE, YEAR 2 ANALYZE 1 TRAIN NO 1

*****^{Not 1A}*****

Run # 315

Facility #4

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0

Q=0.39

Y 2010
 Discharge

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	82602	8536	3644	2279	2173	0	0	8096
SCREENS	24187	2609	88	58	64	483	0	693
OXID DIT	122698	13745	10465	0	10899	524	0	21888
RCY PUMP	110126	11385	2650	1559	1719	770	0	6698
O SEC CL	214839	21196	2787	1139	487	2148	0	6561
CHLORINA	82714	9080	2258	273	7669	3772	1696	15668
POST AER	70	6	0	0	0	0	0	0
DRY BEDS	38136	3780	2444	795	0	343	0	3582
SUB TOTAL	675375	70341	24339	6106	23014	8043	1696	63186

DIRECT COSTS

PROFIT/OVERHEAD 148582 \$

SUB TOTAL (OTHER DIRECT) 148582 \$

TOTAL CONSTRUCTION COST 823957 \$

INDIRECT COSTS

MISC NON CONST COSTS 41197 \$
 ADMIN/LEGAL 16479 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 63667 \$
 INSPECTION 16479 \$
 CONTINGENCIES 65916 \$
 TECHNICAL COSTS 16479 \$

SUB TOTAL (INDIRECT) 220217 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 144397 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 4752 \$/YR

TOTAL PROJECT COST 1229071 \$ TOTAL CONSTRUCTION COST 823957 \$

FINAL YEAR O & M 84335 \$/YR TOTAL STEP III COST 1165404 \$

INITIAL YEAR O & M 84335 \$/YR PRESENT WORTH (APP. A) 2173331 \$

4/26/17

Run #315

2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.144E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.123E+07 \$
EPA ELIGIBLE COST				0.119E+07 \$
LOCAL SHARE				0.126E+07 \$
ANNUAL DEBT SERVICE				0.129E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.184E+05 \$/YEAR
CONTINGENCY RESERVE				0.184E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.250E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.174E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.174E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.174E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.174E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.145E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.145E+02 \$/MONTH

Run # 316

+NOTIA

Facility #4

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
SECONDARY DRYI 0

Q = 0.26

Y 1990
Irrigation

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	72299	7466	3509	2289	1423	0	0	7221
SCREENS	24087	2599	49	52	57	481	0	639
OXID DIT	102261	11577	8579	0	7629	682	0	16890
RCY PUMP	97424	10061	2510	1540	1127	681	0	5858
O SEC CL	159947	15780	2376	1045	487	1599	0	5507
CHLORINA	68371	7416	1803	251	7669	3225	1110	14058
SLOW INF	616282	64896	7233	3713	0	1593	0	12539
INT PUMP	101909	10529	3019	1905	1123	713	0	6760
DRY BEDS	30408	3013	2444	836	0	273	0	3553
SUB TOTAL	1272993	133342	31526	11637	19518	9252	1110	73025

DIRECT COSTS

PROFIT/OVERHEAD 280058 \$

SUB TOTAL (OTHER DIRECT) 280058 \$ TOTAL CONSTRUCTION COST 1553051 \$

INDIRECT COSTS

MISC NON CONST COSTS 77652 \$
 ADMIN/LEGAL 31061 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 110528 \$
 INSPECTION 31061 \$
 CONTINGENCIES 124244 \$
 TECHNICAL COSTS 31061 \$

SUB TOTAL (INDIRECT) 405607 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 848948 \$ (189. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 3794 \$/YR
15364 \$/YR

TOTAL PROJECT COST 3181368 \$ TOTAL CONSTRUCTION COST 1553051 \$
 FINAL YEAR O & M 92204 \$/YR TOTAL STEP III COST 3070840 \$
 INITIAL YEAR O & M 92204 \$/YR PRESENT WORTH (APP. A) 3836335 \$

Run #316
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.942E+05
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.318E+07 \$
EPA ELIGIBLE COST				0.233E+07 \$
LOCAL SHARE				0.325E+07 \$
ANNUAL DEBT SERVICE				0.331E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.473E+05 \$/YEAR
CONTINGENCY RESERVE				0.473E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.518E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.550E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.550E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.550E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.550E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.459E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.459E+02 \$/MONTH

+Not IA

Run #317

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0

Facility #4

Q=0.35

COST SUMMARY

Y 2000
 Irrigation

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	77882	8047	3585	2372	1924	0	0	7881
SCREENS	24140	2605	75	59	62	482	0	678
OXID DIT	116506	13088	9886	0	9809	509	0	20204
RCY PUMP	104385	10787	2609	1626	1523	730	0	6488
O SEC CL	184319	18185	2492	1101	487	1843	0	5923
CHLORINA	72550	7829	2117	279	7669	3341	1502	14908
SLOW INF	808250	85034	9354	4848	0	2074	0	16276
INT PUMP	114019	11791	3139	2012	1518	798	0	7467
DRY BEDS	33637	3333	2444	844	0	302	0	3590
SUB TOTAL	1535690	160702	35704	13145	22996	10083	1502	83415

DIRECT COSTS

PROFIT/OVERHEAD 337851 \$

SUB TOTAL (OTHER DIRECT) 337851 \$

TOTAL CONSTRUCTION COST 1873541 \$

INDIRECT COSTS

MISC NON CONST COSTS 93677 \$
 ADMIN/LEGAL 37470 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 130313 \$
 INSPECTION 37470 \$
 CONTINGENCIES 149883 \$
 TECHNICAL COSTS 37470 \$

SUB TOTAL (INDIRECT) 486283 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 1114764 \$ (248. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 4456 \$/YR
 16084 \$/YR

TOTAL PROJECT COST 3937142 \$ TOTAL CONSTRUCTION COST 1873541 \$
 FINAL YEAR O & M 103973 \$/YR TOTAL STEP III COST 3806829 \$
 INITIAL YEAR O & M 103973 \$/YR PRESENT WORTH (APP. A) 4607176 \$

Run # 317
2000

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.127E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.394E+07 \$
EPA ELIGIBLE COST				0.282E+07 \$
LOCAL SHARE				0.402E+07 \$
ANNUAL DEBT SERVICE				0.410E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.585E+05 \$/YEAR
CONTINGENCY RESERVE				0.585E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.631E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.495E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.495E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.495E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.495E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.413E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.413E+02 \$/MONTH

PINEY CREEK, NOT IC, WWTP, IRRIGATION, YEAR ANALYZE 1 TRAIN NO 1

*****^{+Not IA}***** *Run #318*

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0

Facility #4

Q=0.39

COST SUMMARY

*Y 2010
Irrigation*

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	82602	8536	3644	2431	2173	0	0	8248
SCREENS	24187	2609	88	62	64	483	0	697
OXID DIT	122698	13745	10465	0	10899	524	0	21888
RCY PUMP	110126	11385	2650	1663	1719	770	0	6802
O SEC CL	190415	18786	2592	1143	487	1904	0	6126
CHLORINA	82714	9080	2258	291	7669	3772	1696	15686
SLOW INF	893549	93976	10372	5400	0	2279	0	18051
INT PUMP	119393	12351	3188	2057	1713	835	0	7793
DRY BEDS	37791	3745	2444	848	0	340	0	3632
SUB TOTAL	1663478	174217	37705	13898	24727	10911	1696	88923

DIRECT COSTS
 PROFIT/OVERHEAD 365965 \$

SUB TOTAL (OTHER DIRECT) 365965 \$ TOTAL CONSTRUCTION COST 2029443 \$

INDIRECT COSTS
 MISC NON CONST COSTS 101472 \$
 ADMIN/LEGAL 40588 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 139816 \$
 INSPECTION 40588 \$
 CONTINGENCIES 162355 \$
 TECHNICAL COSTS 40588 \$
 SUB TOTAL (INDIRECT) 525407 \$

LAND COSTS 1244945 \$ (277. ACRES)
 INTEREST DURING CONSTRUCTION 505847 \$

ADMINISTRATIVE COST 4752 \$/YR
 LABORATORY COST 16382 \$/YR

TOTAL PROJECT COST 4305643 \$ TOTAL CONSTRUCTION COST 2029443 \$
 FINAL YEAR O & M 110074 \$/YR TOTAL STEP III COST 4165827 \$
 INITIAL YEAR O & M 110074 \$/YR PRESENT WORTH (APP. A) 4987691 \$

+Cost IA

Run# 318
2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.144E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.431E+07 \$
EPA ELIGIBLE COST				0.306E+07 \$
LOCAL SHARE				0.440E+07 \$
ANNUAL DEBT SERVICE				0.448E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.640E+05 \$/YEAR
CONTINGENCY RESERVE				0.640E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.686E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.477E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.477E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.477E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.477E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.398E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.398E+02 \$/MONTH

Run #319

LIQUID RAW 0 PREL 0 OXID 0 COAG 0 FILT 0 CHLO 0
 SECONDARY DRYI 0 HAUL 0

Facility #6

Q=0.67

Y 1990

Discharge

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	243095	24421	3389	2226	4135	1701	0	11451
PRELIMIN*	57552	5678	3557	1616	863	1438	0	7474
OXID DIT	169029	17949	5460	0	22066	1060	0	28586
O SEC CL	245509	24222	3080	1333	511	2455	0	7379
RCY PUMP	107944	11158	2837	1815	2920	755	0	8327
COAG F/C	408163	40269	24788	7039	371	4081	14984	51263
FILTRATI	390879	42135	434	228	361	14410	0	15433
CHLORINA	98072	10595	2995	381	7669	4287	2884	18216
DRY BEDS	21172	2099	2611	923	0	190	0	3724
HAUL &LF	70426	15578	26	0	0	12505	0	12531
ALUM F/S	89231	8803	4074	0	0	1784	0	5858
SUB TOTAL	1901076	202911	53257	15565	38901	44672	17869	170242

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 418236 \$

SUB TOTAL (OTHER DIRECT) 418236 \$ TOTAL CONSTRUCTION COST 2319312 \$

INDIRECT COSTS

MISC NON CONST COSTS 115965 \$
 ADMIN/LEGAL 46386 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 157309 \$
 INSPECTION 46386 \$
 CONTINGENCIES 185545 \$
 TECHNICAL COSTS 46386 \$

SUB TOTAL (INDIRECT) 597977 \$

LAND COSTS 45000 \$ (10. ACRES)
 INTEREST DURING CONSTRUCTION 394354 \$

ADMINISTRATIVE COST 6302 \$/YR
 LABORATORY COST 17754 \$/YR

TOTAL PROJECT COST 3356643 \$ TOTAL CONSTRUCTION COST 2319312 \$
 FINAL YEAR O & M 194322 \$/YR TOTAL STEP III COST 3199334 \$
 INITIAL YEAR O & M 194322 \$/YR PRESENT WORTH (APP. A) 5341454 \$

Run #319

1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.245E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.336E+07 \$
EPA ELIGIBLE COST				0.331E+07 \$
LOCAL SHARE				0.346E+07 \$
ANNUAL DEBT SERVICE				0.352E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.503E+05 \$/YEAR
CONTINGENCY RESERVE				0.503E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.647E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.265E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.265E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.265E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.265E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.221E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.221E+02 \$/MONTH

Run # 320

LIQUID RAW 0 PREL 0 OXID 0 COAG 0 FILT 0 CHLO 0
 SECONDARY DRYI 0 HAUL 0

Facility # 6

Q = 0.93

Y 2000

Discharge

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	288369	29048	3519	2334	5605	2018	0	13476
PRELIMIN*	81287	8019	3967	1784	1003	2032	0	8786
OXID DIT	261873	28915	6508	0	30465	2380	0	39353
O SEC CL	288825	28495	3422	1477	539	2888	0	8326
RCY PUMP	133410	13811	2957	1911	4029	933	0	9830
COAG F/C	482169	47571	24788	7067	512	4821	20687	57875
FILTRATI	438730	46377	522	277	494	12480	0	13773
CHLORINA	101179	10901	3555	448	7669	4311	3982	19965
DRY BEDS	32090	3184	2980	1058	0	288	0	4326
HAUL & LF	70799	15615	36	0	0	12505	0	12541
ALUM F/S	89231	8803	4074	0	0	1784	0	5858
SUB TOTAL	2267968	240745	56333	16358	50320	46445	24669	194109

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 498953 \$

SUB TOTAL (OTHER DIRECT) 498953 \$

TOTAL CONSTRUCTION COST 2766921 \$

INDIRECT COSTS

MISC NON CONST COSTS 138346 \$

ADMIN/LEGAL 55338 \$

201 PLANNING 0 \$

A/E DESIGN FEE 183950 \$

INSPECTION 55338 \$

CONTINGENCIES 221353 \$

TECHNICAL COSTS 55338 \$

SUB TOTAL (INDIRECT) 709663 \$

LAND COSTS

45000 \$ (10. ACRES)

INTEREST DURING CONSTRUCTION 468810 \$

ADMINISTRATIVE COST

7481 \$/YR

LABORATORY COST

18643 \$/YR

TOTAL PROJECT COST	3990394 \$	TOTAL CONSTRUCTION COST	2766921 \$
FINAL YEAR O & M	220251 \$/YR	TOTAL STEP III COST	3806444 \$
INITIAL YEAR O & M	220251 \$/YR	PRESENT WORTH (APP. A)	6245064 \$

Run # 320
2000

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.338E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.399E+07 \$
EPA ELIGIBLE COST				0.395E+07 \$
LOCAL SHARE				0.411E+07 \$
ANNUAL DEBT SERVICE				0.418E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.598E+05 \$/YEAR
CONTINGENCY RESERVE				0.598E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.758E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.225E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.225E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.225E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.225E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.187E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.187E+02 \$/MONTH

Run # 321

Facility # 6

LIQUID RAW 0 PREL 0 OXID 0 COAG 0 FILT 0 CHLO 0
 SECONDARY DRYI 0 HAUL 0

Q=1.08

Y 2010

Discharge

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	296232	29842	3583	2388	6480	2073	0	14524
PRELIMIN*	96702	9540	4181	1872	1077	2417	0	9547
OXID DIT	353258	37364	7080	0	35570	1941	0	44591
O SEC CL	307557	30343	3756	1627	553	3075	0	9011
RCY PUMP	149047	15438	3017	1960	4702	1043	0	10722
COAG F/C	522974	51597	24788	7083	598	5229	24154	61852
FILTRATI	494034	52191	570	304	575	13920	0	15369
CHLORINA	108641	11638	3861	484	7669	4572	4649	21235
DRY BEDS	45574	4531	3175	1130	0	410	0	4715
HAUL & LF	71023	15637	43	0	0	12505	0	12548
ALUM F/S	89231	8803	4074	0	0	1784	0	5858
SUB TOTAL	2534277	266928	58131	16851	57228	48974	28803	209972

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 557541 \$

SUB TOTAL (OTHER DIRECT) 557541 \$ TOTAL CONSTRUCTION COST 3091818 \$

INDIRECT COSTS

MISC NON CONST COSTS 154590 \$

ADMIN/LEGAL 61836 \$

201 PLANNING 0 \$

A/E DESIGN FEE 203060 \$

INSPECTION 61836 \$

CONTINGENCIES 247345 \$

TECHNICAL COSTS 61836 \$

SUB TOTAL (INDIRECT) 790503 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 49500 \$ (11. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 8123 \$/YR

TOTAL PROJECT COST 4455245 \$ TOTAL CONSTRUCTION COST 3091818 \$

FINAL YEAR O & M 237200 \$/YR TOTAL STEP III COST 4252185 \$

INITIAL YEAR O & M 237200 \$/YR PRESENT WORTH (APP. A) 6864848 \$

Run #321

2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.394E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.446E+07 \$
EPA ELIGIBLE COST				0.441E+07 \$
LOCAL SHARE				0.459E+07 \$
ANNUAL DEBT SERVICE				0.467E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.667E+05 \$/YEAR
CONTINGENCY RESERVE				0.667E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.838E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.213E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.213E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.213E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.213E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.177E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.177E+02 \$/MONTH

***** Run # 322

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Facility # 6

***** Q=0.67

COST SUMMARY

Y 1990
 Irrigation

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	243095	24421	3389	2265	4135	1701	0	11490
PRELIMIN*	57552	5678	3557	1644	863	1438	0	7502
OXID DIT	165609	17608	5460	0	21336	1058	0	27854
O SEC CL	245509	24222	3080	1357	511	2455	0	7403
RCY PUMP	107944	11158	2837	1847	2920	755	0	8359
CHLORINA	98072	10595	2995	387	7669	4287	2884	18222
SLOW INF	1853313	196147	16313	8719	0	5524	0	30556
INT PUMP	147009	15226	3413	2284	2910	1029	0	9636
DRY BEDS	20925	2074	2567	924	0	188	0	3679
HAUL & LF	70385	15574	25	0	0	12505	0	12530
SUB TOTAL	3009418	322708	43641	19430	40349	30944	2884	137231

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD	662071 \$	
SUB TOTAL (OTHER DIRECT)	662071 \$	TOTAL CONSTRUCTION COST 3671489 \$

INDIRECT COSTS

MISC NON CONST COSTS	183574 \$
ADMIN/LEGAL	73429 \$
201 PLANNING	0 \$
A/E DESIGN FEE	236776 \$
INSPECTION	73429 \$
CONTINGENCIES	293719 \$
TECHNICAL COSTS	73429 \$
SUB TOTAL (INDIRECT)	934356 \$

LAND COSTS	2032166 \$	(452. ACRES)
INTEREST DURING CONSTRUCTION	883685 \$	

ADMINISTRATIVE COST	6302 \$/YR
LABORATORY COST	17754 \$/YR

TOTAL PROJECT COST	7521696 \$	TOTAL CONSTRUCTION COST	3671489 \$
FINAL YEAR O & M	161307 \$/YR	TOTAL STEP III COST	7284920 \$
INITIAL YEAR O & M	161307 \$/YR	PRESENT WORTH (APP. A)	8420328 \$

Run # 322
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.245E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.752E+07 \$
EPA ELIGIBLE COST				0.549E+07 \$
LOCAL SHARE				0.769E+07 \$
ANNUAL DEBT SERVICE				0.783E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.112E+06 \$/YEAR
CONTINGENCY RESERVE				0.112E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.117E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.478E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.478E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.478E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.478E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.398E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.398E+02 \$/MONTH

Run#327

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Facility#6

Q=0.93

COST SUMMARY

Irrigation

Y 2000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	288369	29048	3519	2400	5605	2018	0	13542
PRELIMIN*	81287	8019	3967	1834	1003	2032	0	8836
OXID DIT	252879	27896	6508	0	29457	2358	0	38323
O SEC CL	288825	28495	3422	1518	539	2888	0	8367
RCY PUMP	133410	13811	2957	1965	4029	933	0	9884
CHLORINA	101179	10901	3555	460	7669	4311	3982	19977
SLOW INF	2499172	264537	21485	11649	0	7386	0	40520
INT PUMP	167663	17374	3558	2430	4015	1173	0	11176
DRY BEDS	32431	3218	2929	1069	0	291	0	4289
HAUL & LF	70744	15609	35	0	0	12505	0	12540
SUB TOTAL	3915964	418913	51939	23329	52320	35899	3982	167454

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 861512 \$

SUB TOTAL (OTHER DIRECT) 861512 \$

TOTAL CONSTRUCTION COST 4777476 \$

INDIRECT COSTS

MISC NON CONST COSTS 238873 \$

ADMIN/LEGAL 95549 \$

201 PLANNING 0 \$

A/E DESIGN FEE 300101 \$

INSPECTION 95549 \$

CONTINGENCIES 382198 \$

TECHNICAL COSTS 95549 \$

SUB TOTAL (INDIRECT) 1207819 \$

LAND COSTS

2749084 \$ (611. ACRES)

INTEREST DURING CONSTRUCTION 1162764 \$

ADMINISTRATIVE COST

7481 \$/YR

LABORATORY COST

18643 \$/YR

TOTAL PROJECT COST 9897143 \$ TOTAL CONSTRUCTION COST 4777476 \$

FINAL YEAR O & M 193596 \$/YR TOTAL STEP III COST 9597042 \$

INITIAL YEAR O & M 193596 \$/YR PRESENT WORTH (APP. A) 10833003 \$

Run #323
2000

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.338E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.990E+07 \$
EPA ELIGIBLE COST				0.715E+07 \$
LOCAL SHARE				0.101E+08 \$
ANNUAL DEBT SERVICE				0.103E+07 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.147E+06 \$/YEAR
CONTINGENCY RESERVE				0.147E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.152E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.450E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.450E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.450E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.450E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.375E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.375E+02 \$/MONTH

Run #324

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Facility #6

Q=1.08

COST SUMMARY

Irrigation

42010

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	296232	29842	3583	2469	6480	2073	0	14605
PRELIMIN*	96702	9540	4181	1935	1077	2417	0	9610
OXID DIT	364326	38451	7080	0	34393	1938	0	43411
O SEC CL	307557	30343	3756	1681	553	3075	0	9065
RCY PUMP	149047	15438	3017	2025	4702	1043	0	10787
CHLORINA	108641	11638	3861	501	7669	4572	4649	21252
SLOW INF	2871363	303947	24526	13397	0	8436	0	46359
INT PUMP	178835	18535	3629	2505	4686	1251	0	12071
DRY BEDS	45867	4560	3121	1148	0	412	0	4681
HAUL & LF	70959	15630	41	0	0	12505	0	12546
SUB TOTAL	4489534	477929	56798	25664	59564	37726	4649	184387

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 987697 \$

SUB TOTAL (OTHER DIRECT) 987697 \$

TOTAL CONSTRUCTION COST 5477231 \$

INDIRECT COSTS

MISC NON CONST COSTS 273861 \$

ADMIN/LEGAL 109544 \$

201 PLANNING 0 \$

A/E DESIGN FEE 339670 \$

INSPECTION 109544 \$

CONTINGENCIES 438178 \$

TECHNICAL COSTS 109544 \$

SUB TOTAL (INDIRECT) 1380341 \$

LAND COSTS

3181837 \$ (707. ACRES)

INTEREST DURING CONSTRUCTION 1336496 \$

ADMINISTRATIVE COST

8123 \$/YR

LABORATORY COST

19086 \$/YR

TOTAL PROJECT COST 11375905 \$ TOTAL CONSTRUCTION COST 5477231 \$

FINAL YEAR O & M 211613 \$/YR TOTAL STEP III COST 11036235 \$

INITIAL YEAR O & M 211613 \$/YR PRESENT WORTH (APP. A) 12300172 \$

#324
2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.394E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.114E+08 \$
EPA ELIGIBLE COST				0.819E+07 \$
LOCAL SHARE				0.116E+08 \$
ANNUAL DEBT SERVICE				0.118E+07 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.169E+06 \$/YEAR
CONTINGENCY RESERVE				0.169E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.173E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.440E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.440E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.440E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.440E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.367E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.367E+02 \$/MONTH

TAHITIAN VILLAGE LOCAL WWTP, DISCHARGE, YEAR ANALYZE 1 TRAIN NO 1

Run #325

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0

Facility #7

Q=0.18

COST SUMMARY

Discharge Y 1990

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	62450	6443	3363	2048	965	0	0	6376
SCREENS	24009	2592	29	43	51	480	0	603
OXID DIT	116870	12866	7150	0	4867	744	0	12761
RCY PUMP	85340	8800	2388	1371	765	597	0	5121
O SEC CL	147755	14577	2376	985	487	1477	0	5325
CHLORINA	63378	6924	1467	209	7669	3084	753	13182
POST AER	31	3	0	0	0	0	0	0
DRY BEDS	24321	2409	2444	788	0	218	0	3450
SUB TOTAL	524158	54618	19219	5445	14806	6603	753	46818

DIRECT COSTS

PROFIT/OVERHEAD 115314 \$

SUB TOTAL (OTHER DIRECT) 115314 \$

TOTAL CONSTRUCTION COST 639472 \$

INDIRECT COSTS

MISC NON CONST COSTS 31973 \$

ADMIN/LEGAL 12789 \$

201 PLANNING 0 \$

A/E DESIGN FEE 51152 \$

INSPECTION 12789 \$

CONTINGENCIES 51157 \$

TECHNICAL COSTS 12789 \$

SUB TOTAL (INDIRECT) 172649 \$

LAND COSTS

40500 \$ (9. ACRES)

INTEREST DURING CONSTRUCTION 113505 \$

ADMINISTRATIVE COST

3087 \$/YR

LABORATORY COST

14486 \$/YR

TOTAL PROJECT COST 966126 \$ TOTAL CONSTRUCTION COST 639472 \$

FINAL YEAR O & M 64402 \$/YR TOTAL STEP III COST 914974 \$

INITIAL YEAR O & M 64402 \$/YR PRESENT WORTH (APP. A) 1684224 \$

Run #325
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.639E+05
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.966E+06 \$
EPA ELIGIBLE COST				0.926E+06 \$
LOCAL SHARE				0.994E+06 \$
ANNUAL DEBT SERVICE				0.101E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.145E+05 \$/YEAR
CONTINGENCY RESERVE				0.145E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.195E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.305E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.305E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.305E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.305E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.254E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.254E+02 \$/MONTH

***** Run# 326

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0

Facility #7

***** Q=0.40

COST SUMMARY

Discharge Y 2000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	82166	8491	3638	2275	2222	0	0	8135
SCREENS	24181	2609	91	59	64	483	0	697
OXID DIT	124136	13887	10577	0	10899	524	0	22000
RCY PUMP	109509	11321	2658	1565	1758	766	0	6747
O SEC CL	214839	21196	2808	1146	487	2148	0	6589
CHLORINA	82517	9060	2286	275	7669	3757	1735	15722
POST AER	72	7	0	0	0	0	0	0
DRY BEDS	38202	3786	2444	795	0	343	0	3582
SUB TOTAL	675626	70360	24503	6116	23103	8024	1735	63472

DIRECT COSTS

PROFIT/OVERHEAD 148637 \$

SUB TOTAL (OTHER DIRECT) 148637 \$

TOTAL CONSTRUCTION COST 824263 \$

INDIRECT COSTS

MISC NON CONST COSTS 41213 \$
 ADMIN/LEGAL 16485 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 63688 \$
 INSPECTION 16485 \$
 CONTINGENCIES 65941 \$
 TECHNICAL COSTS 16485 \$

SUB TOTAL (INDIRECT) 220297 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 40500 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 4810 \$/YR

TOTAL PROJECT COST 1229508 \$ TOTAL CONSTRUCTION COST 824263 \$

FINAL YEAR O & M 84732 \$/YR TOTAL STEP III COST 1165820 \$

INITIAL YEAR O & M 84732 \$/YR PRESENT WORTH (APP. A) 2178747 \$

Run#326

2000

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.147E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.123E+07 \$
EPA ELIGIBLE COST				0.119E+07 \$
LOCAL SHARE				0.127E+07 \$
ANNUAL DEBT SERVICE				0.129E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.184E+05 \$/YEAR
CONTINGENCY RESERVE				0.184E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.250E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.170E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.170E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.170E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.170E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.142E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.142E+02 \$/MONTH

Run #327

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0 HAUL 0

Facility #7

Q = 0.76

COST SUMMARY

Discharge 42010

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	282928	28511	3438	2153	4647	1980	0	12218
PRELIMIN*	78507	7745	3709	1594	914	1962	0	8179
OXID DIT	220872	24215	5839	0	24965	1939	0	32743
O SEC CL	288825	28495	3472	1420	541	2888	0	8321
RCY PUMP	130525	13510	2883	1758	3303	913	0	8857
CHLORINA	99228	10709	3198	385	7669	4296	3263	18811
POST AER	136	13	0	0	0	0	0	0
DRY BEDS	33470	3321	2747	924	0	301	0	3972
HAUL & LF	70555	15591	30	0	0	12505	0	12535
SUB TOTAL	1205051	132114	25319	8237	42042	26787	3263	105636

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD	265111 \$		
SUB TOTAL (OTHER DIRECT)	265111 \$	TOTAL CONSTRUCTION COST	1470162 \$

INDIRECT COSTS

MISC NON CONST COSTS	73508 \$
ADMIN/LEGAL	29403 \$
201 PLANNING	0 \$
A/E DESIGN FEE	105347 \$
INSPECTION	29403 \$
CONTINGENCIES	117612 \$
TECHNICAL COSTS	29403 \$
SUB TOTAL (INDIRECT)	384676 \$

LAND COSTS 45000 \$ (10. ACRES)
 INTEREST DURING CONSTRUCTION 252915 \$

ADMINISTRATIVE COST 6730 \$/YR
 LABORATORY COST 18089 \$/YR

TOTAL PROJECT COST	2152753 \$	TOTAL CONSTRUCTION COST	1470162 \$
FINAL YEAR O & M	130469 \$/YR	TOTAL STEP III COST	2047406 \$
INITIAL YEAR O & M	130469 \$/YR	PRESENT WORTH (APP. A)	3616497 \$

Run#327
2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.277E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.215E+07 \$
EPA ELIGIBLE COST				0.211E+07 \$
LOCAL SHARE				0.222E+07 \$
ANNUAL DEBT SERVICE				0.226E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.322E+05 \$/YEAR
CONTINGENCY RESERVE				0.322E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.421E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.152E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.152E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.152E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.152E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.127E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.127E+02 \$/MONTH

***** Run #328

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0

Facility #7

Q=0.18

COST SUMMARY

Irrigation Y 1990

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	62450	6443	3363	2150	965	0	0	6478
SCREENS	24009	2592	29	45	51	480	0	605
OXID DIT	116870	12866	7150	0	4867	744	0	12761
RCY PUMP	85340	8800	2388	1439	765	597	0	5189
O SEC CL	135545	13373	2376	1034	487	1355	0	5252
CHLORINA	63378	6924	1467	220	7669	3084	753	13193
SLOW INF	437600	46147	5201	2642	0	1141	0	8984
INT PUMP	88683	9149	2872	1780	762	620	0	6034
DRY BEDS	24230	2400	2444	827	0	218	0	3489
SUB TOTAL	1038110	108698	27294	10139	15568	8242	753	61985

DIRECT COSTS

PROFIT/OVERHEAD 228384 \$

SUB TOTAL (OTHER DIRECT) 228384 \$

TOTAL CONSTRUCTION COST 1266494 \$

INDIRECT COSTS

MISC NON CONST COSTS 63324 \$

ADMIN/LEGAL 25329 \$

201 PLANNING 0 \$

A/E DESIGN FEE 92482 \$

INSPECTION 25329 \$

CONTINGENCIES 101319 \$

TECHNICAL COSTS 25329 \$

SUB TOTAL (INDIRECT) 333112 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 602078 \$ (134. ACRES)

ADMINISTRATIVE COST 3087 \$/YR

LABORATORY COST 14486 \$/YR

TOTAL PROJECT COST 2494783 \$ TOTAL CONSTRUCTION COST 1266494 \$

FINAL YEAR O & M 79573 \$/YR TOTAL STEP III COST 2402301 \$

INITIAL YEAR O & M 79573 \$/YR PRESENT WORTH (APP. A) 3112701 \$

Run#328

1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.639E+05
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.249E+07 \$
EPA ELIGIBLE COST				0.189E+07 \$
LOCAL SHARE				0.255E+07 \$
ANNUAL DEBT SERVICE				0.260E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.371E+05 \$/YEAR
CONTINGENCY RESERVE				0.371E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.414E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.648E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.648E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.648E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.648E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.540E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.540E+02 \$/MONTH

***** Run #329

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0

Facility #7

Q=0.40

COST SUMMARY

Irrigation 42000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	82166	8491	3638	2428	2222	0	0	8288
SCREENS	24181	2609	91	63	64	483	0	701
OXID DIT	124136	13887	10577	0	10899	524	0	22000
RCY PUMP	109509	11321	2658	1670	1758	766	0	6852
O SEC CL	196514	19388	2611	1151	487	1965	0	6214
CHLORINA	82517	9060	2286	293	7669	3757	1735	15740
SLOW INF	915212	96247	10573	5509	0	2334	0	18416
INT PUMP	120428	12459	3197	2065	1752	843	0	7857
DRY BEDS	38422	3808	2444	849	0	345	0	3638
SUB TOTAL	1693090	177273	38078	14030	24856	11020	1735	89706

DIRECT COSTS

PROFIT/OVERHEAD 372479 \$

SUB TOTAL (OTHER DIRECT) 372479 \$

TOTAL CONSTRUCTION COST 2065569 \$

INDIRECT COSTS

MISC NON CONST COSTS 103278 \$
 ADMIN/LEGAL 41311 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 142008 \$
 INSPECTION 41311 \$
 CONTINGENCIES 165245 \$
 TECHNICAL COSTS 41311 \$

SUB TOTAL (INDIRECT) 534464 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 1270900 \$ (282. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 4810 \$/YR

TOTAL PROJECT COST 4386252 \$ TOTAL CONSTRUCTION COST 2065569 \$
 FINAL YEAR O & M 110969 \$/YR TOTAL STEP III COST 4244244 \$
 INITIAL YEAR O & M 110969 \$/YR PRESENT WORTH (APP. A) 5065870 \$

Run #329
2000

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.147E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.439E+07 \$
EPA ELIGIBLE COST				0.312E+07 \$
LOCAL SHARE				0.448E+07 \$
ANNUAL DEBT SERVICE				0.456E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.652E+05 \$/YEAR
CONTINGENCY RESERVE				0.652E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.698E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.474E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.474E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.474E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.474E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.396E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.396E+02 \$/MONTH

***** Run#330

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Facility #7

***** Q=0.76

Irrigation Y 2010

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	282928	28511	3438	2315	4647	1980	0	12380
PRELIMIN*	78507	7745	3709	1714	914	1962	0	8299
OXID DIT	214111	23462	5839	0	24139	1943	0	31926
O SEC CL	254011	26047	3206	1411	522	2640	0	7779
RCY PUMP	130525	13510	2883	1891	3303	913	0	8990
CHLORINA	99228	10709	3198	414	7669	4296	3263	18840
SLOW INF	2071546	219275	18125	9739	0	6163	0	34027
INT PUMP	154523	16008	3468	2339	3291	1081	0	10179
DRY BEDS	33672	3341	2700	977	0	303	0	3980
HAUL & LF	70510	15586	28	0	0	12505	0	12533
SUB TOTAL	3399565	364198	46599	20803	44488	33795	3263	148933

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 747904 \$

SUB TOTAL (OTHER DIRECT) 747904 \$ TOTAL CONSTRUCTION COST 4147469 \$

INDIRECT COSTS

MISC NON CONST COSTS 207373 \$
 ADMIN/LEGAL 82949 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 264167 \$
 INSPECTION 82949 \$
 CONTINGENCIES 331797 \$
 TECHNICAL COSTS 82949 \$

SUB TOTAL (INDIRECT) 1052184 \$

LAND COSTS 2280412 \$ (507. ACRES)

INTEREST DURING CONSTRUCTION 995783 \$

ADMINISTRATIVE COST 6730 \$/YR

LABORATORY COST 18089 \$/YR

TOTAL PROJECT COST 8475849 \$ TOTAL CONSTRUCTION COST 4147469 \$
 FINAL YEAR O & M 173770 \$/YR TOTAL STEP III COST 8211682 \$
 INITIAL YEAR O & M 173770 \$/YR PRESENT WORTH (APP. A) 9393201 \$

Run#330
2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.277E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.848E+07 \$
EPA ELIGIBLE COST				0.620E+07 \$
LOCAL SHARE				0.866E+07 \$
ANNUAL DEBT SERVICE				0.882E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.126E+06 \$/YEAR
CONTINGENCY RESERVE				0.126E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.131E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.473E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.473E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.473E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.473E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.394E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.394E+02 \$/MONTH

***** Run # 331

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0

Facility No. 1

***** Q = 0.20

COST SUMMARY

Discharge

Y 1990

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	64613	6666	3391	2071	1119	0	0	6581
SCREENS	24022	2593	36	45	53	480	0	614
OXID DIT	123185	13525	7666	0	5678	764	0	14108
RCY PUMP	87532	9029	2434	1402	887	612	0	5335
O SEC CL	159947	15780	2376	986	487	1599	0	5448
CHLORINA	64700	7054	1587	219	7669	3111	873	13459
POST AER	36	3	0	0	0	0	0	0
DRY BEDS	24875	2464	2444	789	0	223	0	3456
SUB TOTAL	548915	57119	19936	5514	15896	6793	873	49001

DIRECT COSTS

PROFIT/OVERHEAD 120761 \$

SUB TOTAL (OTHER DIRECT) 120761 \$

TOTAL CONSTRUCTION COST 669676 \$

INDIRECT COSTS

MISC NON CONST COSTS 33483 \$

ARCHIT/LEGAL 12393 \$

201 PLANNING 0 \$

A/E DESIGN FEE 53228 \$

INSPECTION 13393 \$

CONTINGENCIES 53574 \$

TECHNICAL COSTS 13393 \$

SUB TOTAL (INDIRECT) 180464 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 40500 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 3340 \$/YR

TOTAL PROJECT COST 1009206 \$ TOTAL CONSTRUCTION COST 669676 \$

FINAL YEAR O & M 67172 \$/YR TOTAL STEP III COST 955978 \$

INITIAL YEAR O & M 67172 \$/YR PRESENT WORTH (APP. A) 1758212 \$

Run#331
1990

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
D NUMBER OF BILLING UNITS		0.741E+05
D EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.101E+07 \$
EPA ELIGIBLE COST		0.969E+06 \$
LOCAL SHARE		0.104E+07 \$
ANNUAL DEBT SERVICE		0.106E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.151E+05 \$/YEAR
CONTINGENCY RESERVE		0.151E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.203E+06 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.274E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.274E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.274E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.274E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.229E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.229E+02 \$/MONTH

BASTROP SW LOCAL WWTP, DISCHARGE, YEAR 2000, ANALYZE 1 TRAIN NO 1

***** Run#332

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0

Facility #1

Q=0.35

COST SUMMARY

Discharge Y 2000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	70704	7300	3483	2151	1952	0	0	7586
SCREENS	24072	2598	76	56	62	481	0	675
OXID DIT	117340	13170	9952	0	9809	509	0	20270
RCY PUMP	95189	9828	2614	1531	1545	666	0	6356
O SEC CL	202618	19990	2692	1103	487	2026	0	6308
CHLORINA	69696	7547	2133	263	7669	3206	1524	14799
POST AER	63	6	0	0	0	0	0	0
DRY BEDS	26156	2591	2444	793	0	235	0	3472
SUB TOTAL	605842	63033	23397	5899	21527	7125	1524	59462

DIRECT COSTS

PROFIT/OVERHEAD 133285 \$

SUB TOTAL (OTHER DIRECT) 133285 \$

TOTAL CONSTRUCTION COST 739127 \$

INDIRECT COSTS

MISC NON CONST COSTS 36956 \$
 ADMIN/LEGAL 14782 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 57960 \$
 INSPECTION 14782 \$
 CONTINGENCIES 59130 \$
 TECHNICAL COSTS 14782 \$

SUB TOTAL (INDIRECT) 198392 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 40500 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 4489 \$/YR
 16118 \$/YR

TOTAL PROJECT COST 1108217 \$ TOTAL CONSTRUCTION COST 739127 \$
 FINAL YEAR O & M 80083 \$/YR TOTAL STEP III COST 1050257 \$
 INITIAL YEAR O & M 80083 \$/YR PRESENT WORTH (APP. A) 2011202 \$

Run#332

2000

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00	PERCENT
D STATE GRANT		0.000E+00	PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01	PERCENT
BONDS	PERCENT RATE LIFE		
I REVENUE	100.00 8.00 20		
D GENERAL OBLIGATION	0.00 0.00 30		
D OTHER	0.00 0.00 30		
D NUMBER OF BILLING UNITS		0.129E+06	
D EXISTING SEWER RATE		0.000E+00	\$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01	
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03	GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00	\$/YEAR
TOTAL PROJECT COST		0.111E+07	\$
EPA ELIGIBLE COST		0.107E+07	\$
LOCAL SHARE		0.114E+07	\$
ANNUAL DEBT SERVICE		0.116E+06	\$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.166E+05	\$/YEAR
CONTINGENCY RESERVE		0.166E+05	\$/YEAR
TOTAL ANNUAL OPERATING COST		0.229E+06	\$/YEAR
TREATMENT COST			
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.178E+01	\$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.178E+01	\$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.178E+01	\$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.178E+01	\$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.148E+02	\$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.148E+02	\$/MONTH

BASTROP SW LOCAL WWTP, DISCHARGE, YEAR 2010, ANALYZE 1 TRAIN NO 1

***** Run #333

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0

Facility #1

***** Q=0.42

COST SUMMARY

Discharge

Y 2010

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	76932	7947	3570	2223	2316	0	0	810
SCREENS	24129	2604	96	60	65	482	0	70
OXID DIT	126852	14155	10784	0	10899	524	0	2220
RCY PUMP	103047	10647	2672	1574	1832	721	0	679
O SEC CL	220959	21800	2846	1159	491	2209	0	670
CHLORINA	80473	8859	2336	281	7669	3651	1808	1574
POST AER	75	7	0	0	0	0	0	0
DRY BEDS	31036	3075	2444	795	0	279	0	351
SUB TOTAL	663506	69097	24751	6093	23275	7869	1808	6378

DIRECT COSTS

PROFIT/OVERHEAD 145971 \$

SUB TOTAL (OTHER DIRECT) 145971 \$ TOTAL CONSTRUCTION COST 809477 \$

INDIRECT COSTS

MISC NON CONST COSTS 40473 \$
 ADMIN/LEGAL 16189 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 62698 \$
 INSPECTION 16189 \$
 CONTINGENCIES 64758 \$
 TECHNICAL COSTS 16189 \$

SUB TOTAL (INDIRECT) 216496 \$

LAND COSTS 40500 \$ (9. ACRES)

INTEREST DURING CONSTRUCTION 141974 \$

ADMINISTRATIVE COST 4917 \$/YR

LABORATORY COST 16541 \$/YR

TOTAL PROJECT COST 1208447 \$ TOTAL CONSTRUCTION COST 809477 \$
 FINAL YEAR O & M 85257 \$/YR TOTAL STEP III COST 1145749 \$
 INITIAL YEAR O & M 85257 \$/YR PRESENT WORTH (APP. A) 2166750 \$

Run#333

2010

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
D NUMBER OF BILLING UNITS		0.153E+06
D EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.121E+07 \$
EPA ELIGIBLE COST		0.117E+07 \$
LOCAL SHARE		0.124E+07 \$
ANNUAL DEBT SERVICE		0.127E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.181E+05 \$/YEAR
CONTINGENCY RESERVE		0.181E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.248E+06 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.162E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.162E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.162E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.162E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.135E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.135E+02 \$/MONTH

***** Run#334

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0

Facility #1

***** Q=0.20

COST SUMMARY

Irrigation 41990

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOT. O & M COST \$/YR
RAW PUMP	64613	6666	3391	2180	1119	0	0	6666
SCREENS	24022	2593	36	47	53	480	0	61
OXID DIT	123185	13525	7666	0	5678	764	0	1410
RCY PUMP	87532	9029	2434	1476	887	612	0	540
O SEC CL	141653	13975	2376	1038	487	1416	0	531
CHLORINA	64700	7054	1587	231	7669	3111	873	1347
SLOW INF	498730	52553	5899	3008	0	1292	0	1019
INT PUMP	93458	9647	2928	1826	884	654	0	629
DRY BEDS	25030	2480	2444	830	0	225	0	349
SUB TOTAL	1122928	117527	28764	10641	16780	8558	873	6560

DIRECT COSTS
 PROFIT/OVERHEAD

247044 \$

SUB TOTAL (OTHER DIRECT)

247044 \$

TOTAL CONSTRUCTION COST 1369972 \$

INDIRECT COSTS

MISC NON CONST COSTS 68498 \$
 ADMIN/LEGAL 27399 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 99044 \$
 INSPECTION 27399 \$
 CONTINGENCIES 109597 \$
 TECHNICAL COSTS 27399 \$

SUB TOTAL (INDIRECT)

359336 \$

LAND COSTS

685987 \$ (152. ACRES)

INTEREST DURING CONSTRUCTION

321536 \$

ADMINISTRATIVE COST

3340 \$/YR

LABORATORY COST

14816 \$/YR

TOTAL PROJECT COST	2736831 \$	TOTAL CONSTRUCTION COST	1369972 \$
FINAL YEAR O & M	83776 \$/YR	TOTAL STEP III COST	2637787 \$
INITIAL YEAR O & M	83776 \$/YR	PRESENT WORTH (APP. A)	3365234 \$

***** Run # 334

1990

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00	PERCENT
D STATE GRANT		0.000E+00	PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01	PERCENT
BONDS	PERCENT RATE LIFE		
I REVENUE	100.00 8.00 20		
D GENERAL OBLIGATION	0.00 0.00 30		
D OTHER	0.00 0.00 30		
D NUMBER OF BILLING UNITS		0.741E+05	
D EXISTING SEWER RATE		0.000E+00	\$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01	
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03	GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00	\$/YEAR
TOTAL PROJECT COST		0.274E+07	\$
EPA ELIGIBLE COST		0.205E+07	\$
LOCAL SHARE		0.280E+07	\$
ANNUAL DEBT SERVICE		0.285E+06	\$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.407E+05	\$/YEAR
CONTINGENCY RESERVE		0.407E+05	\$/YEAR
TOTAL ANNUAL OPERATING COST		0.450E+06	\$/YEAR
TREATMENT COST			
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.608E+01	\$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.608E+01	\$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.608E+01	\$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.608E+01	\$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.507E+02	\$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.507E+02	\$/MONTH

BASTROP SW LOCAL WWTP, IRRIGATION, YEAR 2000 ANALYZE 1 TRAIN NO 1

***** Run#335

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRY 0

Facility #1

***** Q = 0.35

COST SUMMARY

Irrigation Y 2000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	70704	7300	3483	2290	1952	0	0	7725
SCREENS	24072	2598	76	59	62	481	0	678
OXID DIT	117340	13170	9952	0	9809	509	0	20270
RCY PUMP	95189	9828	2614	1630	1545	666	0	6455
O SEC CL	184319	18185	2504	1105	487	1843	0	5939
CHLORINA	69696	7547	2133	280	7669	3206	1524	14812
SLOW INF	815867	85816	9468	4907	0	2083	0	16458
INT PUMP	114633	11855	3144	2016	1540	802	0	7502
DRY BEDS	26145	2590	2444	844	0	235	0	3523
SUB TOTAL	1517968	158892	35822	13135	23067	9828	1524	83362

DIRECT COSTS
 PROFIT/OVERHEAD

333953 \$

SUB TOTAL (OTHER DIRECT)

333953 \$

TOTAL CONSTRUCTION COST 1851921 \$

INDIRECT COSTS
 MISC NON CONST COSTS
 ADMIN/LEGAL
 201 PLANNING
 A/E DESIGN FEE
 INSPECTION
 CONTINGENCIES
 TECHNICAL COSTS

92596 \$
 37038 \$
 0 \$
 128990 \$
 37038 \$
 148153 \$
 37038 \$

SUB TOTAL (INDIRECT)

480853 \$

LAND COSTS
 INTEREST DURING CONSTRUCTION

1129264 \$ (251. ACRES)
 460883 \$

ADMINISTRATIVE COST
 LABORATORY COST

4489 \$/YR
 16118 \$/YR

TOTAL PROJECT COST	3922921 \$	TOTAL CONSTRUCTION COST	1851921 \$
FINAL YEAR O & M	103987 \$/YR	TOTAL STEP III COST	3793931 \$
INITIAL YEAR O & M	103987 \$/YR	PRESENT WORTH (APP. A)	4591624 \$

***** Run # 335

2000

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00	PERCENT
D STATE GRANT		0.000E+00	PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01	PERCENT
BONDS	PERCENT RATE LIFE		
I REVENUE	100.00 8.00 20		
D GENERAL OBLIGATION	0.00 0.00 30		
D OTHER	0.00 0.00 30		
D NUMBER OF BILLING UNITS		0.129E+06	
D EXISTING SEWER RATE		0.000E+00	\$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01	
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03	GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00	\$/YEAR
TOTAL PROJECT COST		0.392E+07	\$
EPA ELIGIBLE COST		0.279E+07	\$
LOCAL SHARE		0.401E+07	\$
ANNUAL DEBT SERVICE		0.408E+06	\$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.583E+05	\$/YEAR
CONTINGENCY RESERVE		0.583E+05	\$/YEAR
TOTAL ANNUAL OPERATING COST		0.629E+06	\$/YEAR
TREATMENT COST			
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.487E+01	\$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.487E+01	\$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.487E+01	\$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.487E+01	\$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.406E+02	\$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.406E+02	\$/MONTH

***** Run#336

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0

Facility #1

***** Q = 0.42

COST SUMMARY

Irrigation Y 2010

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	76932	7947	3570	2376	2316	0	0	8262
SCREENS	24129	2604	96	64	65	482	0	707
OXID DIT	126852	14155	10784	0	10899	524	0	22207
RCY PUMP	103047	10647	2672	1682	1832	721	0	6907
O SEC CL	196514	19388	2647	1165	487	1965	0	6264
CHLORINA	80473	8859	2336	300	7669	3651	1808	15764
SLOW INF	940683	98958	10952	5713	0	2411	0	19076
INT PUMP	122353	12659	3214	2080	1826	856	0	7976
DRY BEDS	31136	3085	2444	850	0	280	0	3574
SUB TOTAL	1702122	178306	38720	14233	25098	10893	1808	90737

DIRECT COSTS

PROFIT/OVERHEAD 374466 \$

SUB TOTAL (OTHER DIRECT) 374466 \$

TOTAL CONSTRUCTION COST 2076588 \$

INDIRECT COSTS

MISC NON CONST COSTS 103829 \$

ADMIN/LEGAL 41531 \$

201 PLANNING 0 \$

A/E DESIGN FEE 142676 \$

INSPECTION 41531 \$

CONTINGENCIES 166127 \$

TECHNICAL COSTS 41531 \$

SUB TOTAL (INDIRECT) 537225 \$

LAND COSTS

1319859 \$ (293. ACRES)

INTEREST DURING CONSTRUCTION 523670 \$

ADMINISTRATIVE COST

4917 \$/YR

LABORATORY COST

16541 \$/YR

TOTAL PROJECT COST 4457342 \$ TOTAL CONSTRUCTION COST 2076588 \$

FINAL YEAR O & M 112212 \$/YR TOTAL STEP III COST 4314666 \$

INITIAL YEAR O & M 112212 \$/YR PRESENT WORTH (APP. A) 5135018 \$

Run #336

2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.153E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.446E+07 \$
EPA ELIGIBLE COST				0.314E+07 \$
LOCAL SHARE				0.455E+07 \$
ANNUAL DEBT SERVICE				0.464E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.662E+05 \$/YEAR
CONTINGENCY RESERVE				0.662E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.708E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.462E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.462E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.462E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.462E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.385E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.385E+02 \$/MONTH

Run #337

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0

Facility # 9

Q=0.13

COST SUMMARY

Discharge

Y 1990

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	49627	5108	3130	1867	700	0	0	5697
SCREENS	23928	2584	19	38	45	478	0	580
OXID DIT	105140	11616	6151	0	3244	866	0	10261
RCY PUMP	69117	7107	2291	1302	555	483	0	4631
O SEC CL	129430	12769	2376	981	487	1294	0	5138
CHLORINA	58045	6398	1237	188	7669	2897	546	12537
POST AER	22	2	0	0	0	0	0	0
DRY BEDS	16299	1614	2444	785	0	146	0	3375
SUB TOTAL	451610	47201	17651	5163	12704	6167	546	42219

DIRECT COSTS

PROFIT/OVERHEAD 99354 \$

SUB TOTAL (OTHER DIRECT) 99354 \$

TOTAL CONSTRUCTION COST 550964 \$

INDIRECT COSTS

MISC NON CONST COSTS 27548 \$
 ADMIN/LEGAL 11019 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 44994 \$
 INSPECTION 11019 \$
 CONTINGENCIES 44077 \$
 TECHNICAL COSTS 11019 \$

SUB TOTAL (INDIRECT) 149676 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 98664 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 2603 \$/YR
 13800 \$/YR

TOTAL PROJECT COST 839804 \$ TOTAL CONSTRUCTION COST 550964 \$
 FINAL YEAR O & M 58636 \$/YR TOTAL STEP III COST 794810 \$
 INITIAL YEAR O & M 58636 \$/YR PRESENT WORTH (APP. A) 1497206 \$

Run#337
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.464E+05
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.840E+06 \$
EPA ELIGIBLE COST				0.799E+06 \$
LOCAL SHARE				0.864E+06 \$
ANNUAL DEBT SERVICE				0.880E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.126E+05 \$/YEAR
CONTINGENCY RESERVE				0.126E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.172E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.371E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.371E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.371E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.371E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.309E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.309E+02 \$/MONTH

***** Run#338

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0

Facility#9
 Q=0.31

COST SUMMARY

Discharge Y 2000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	73839	7628	3533	2187	1709	0	0	7429
SCREENS	24103	2601	63	53	60	482	0	658
OXID DIT	110841	12479	9351	0	8719	708	0	18778
RCY PUMP	99587	10286	2570	1500	1353	697	0	6120
O SEC CL	190415	18786	2578	1063	487	1904	0	6032
CHLORINA	70380	7615	1988	252	7669	3272	1334	14515
POST AER	55	5	0	0	0	0	0	0
DRY BEDS	31309	3102	2444	792	0	281	0	3517
SUB TOTAL	600533	62506	22530	5850	20001	7346	1334	57049

DIRECT COSTS

PROFIT/OVERHEAD 132117 \$

SUB TOTAL (OTHER DIRECT) 132117 \$

TOTAL CONSTRUCTION COST 732650 \$

INDIRECT COSTS

MISC NON CONST COSTS 36632 \$
 ADMIN/LEGAL 14653 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 57521 \$
 INSPECTION 14653 \$
 CONTINGENCIES 58612 \$
 TECHNICAL COSTS 14653 \$

SUB TOTAL (INDIRECT) 196724 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 40500 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 4184 \$/YR
 15797 \$/YR

TOTAL PROJECT COST 1098988 \$ TOTAL CONSTRUCTION COST 732650 \$
 FINAL YEAR O & M 77045 \$/YR TOTAL STEP III COST 1041467 \$
 INITIAL YEAR O & M 77045 \$/YR PRESENT WORTH (APP. A) 1963718 \$

Run#338
2000

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.113E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.110E+07 \$
EPA ELIGIBLE COST				0.106E+07 \$
LOCAL SHARE				0.113E+07 \$
ANNUAL DEBT SERVICE				0.115E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.165E+05 \$/YEAR
CONTINGENCY RESERVE				0.165E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.225E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.199E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.199E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.199E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.199E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.166E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.166E+02 \$/MONTH

***** Run # 339

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0 HAUL 0

Facility # 9

***** Q=0.62

COST SUMMARY

Discharge 42010

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	241470	24261	3360	2088	3860	1690	0	10998
PRELIMIN*	76858	7582	3471	1498	835	1921	0	7725
OXID DIT	163701	17417	5248	0	20518	1055	0	26821
0 SEC CL	264011	26047	3234	1316	524	2640	0	7714
RCY PUMP	128802	13331	2811	1701	2716	901	0	8129
CHLORINA	97409	10530	2882	348	7669	4283	2682	17864
POST AER	112	11	0	0	0	0	0	0
DRY BEDS	34830	3456	2535	849	0	313	0	3697
HAUL & LF	70356	15571	24	0	0	12505	0	12529
SUB TOTAL	1077553	118209	23569	7803	36125	25311	2682	95477

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 237061 \$

SUB TOTAL (OTHER DIRECT) 237061 \$

TOTAL CONSTRUCTION COST 1314614 \$

INDIRECT COSTS

MISC NON CONST COSTS 65730 \$

ADMIN/LEGAL 26292 \$

201 PLANNING 0 \$

A/E DESIGN FEE 95540 \$

INSPECTION 26292 \$

CONTINGENCIES 105169 \$

TECHNICAL COSTS 26292 \$

SUB TOTAL (INDIRECT) 345315 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 45000 \$ (10. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 6063 \$/YR

TOTAL PROJECT COST 1931897 \$ TOTAL CONSTRUCTION COST 1314614 \$

FINAL YEAR O & M 119115 \$/YR TOTAL STEP III COST 1836357 \$

INITIAL YEAR O & M 119115 \$/YR PRESENT WORTH (APP. A) 3268931 \$

Run# 339

USER CHARGE SUMMARY

2010

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.227E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.193E+07 \$
EPA ELIGIBLE COST				0.189E+07 \$
LOCAL SHARE				0.199E+07 \$
ANNUAL DEBT SERVICE				0.203E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.289E+05 \$/YEAR
CONTINGENCY RESERVE				0.289E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.380E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.167E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.167E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.167E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.167E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.139E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.139E+02 \$/MONTH

***** Run#340

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0

Facility # 9

***** Q=0.13

COST SUMMARY

Irrigation 41990

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	49627	5108	3130	1952	700	0	0	5782
SCREENS	23928	2584	19	39	45	478	0	581
OXID DIT	105140	11616	6151	0	3244	866	0	10261
RCY PUMP	69117	7107	2291	1360	555	483	0	4689
0 SEC CL	117169	11560	2376	1025	487	1171	0	5059
CHLORINA	58045	6398	1237	197	7669	2897	546	12546
SLOW INF	331970	35059	3964	1996	0	871	0	6831
INT PUMP	79429	8183	2756	1683	553	556	0	5548
DRY BEDS	16318	1616	2444	820	0	146	0	3410
SUB TOTAL	850746	89234	24372	9076	13258	7472	546	54707

DIRECT COSTS

PROFIT/OVERHEAD 187164 \$

SUB TOTAL (OTHER DIRECT) 187164 \$

TOTAL CONSTRUCTION COST 1037910 \$

INDIRECT COSTS

MISC NON CONST COSTS 51895 \$
 ADMIN/LEGAL 20758 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 77772 \$
 INSPECTION 20758 \$
 CONTINGENCIES 83032 \$
 TECHNICAL COSTS 20758 \$

SUB TOTAL (INDIRECT) 274973 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 456120 \$ (101. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 2603 \$/YR
 13800 \$/YR

TOTAL PROJECT COST 2004501 \$ TOTAL CONSTRUCTION COST 1037910 \$

FINAL YEAR O & M 71129 \$/YR TOTAL STEP III COST 1926729 \$

INITIAL YEAR O & M 71129 \$/YR PRESENT WORTH (APP. A) 2596905 \$

Run #340
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.464E+05
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.200E+07 \$
EPA ELIGIBLE COST				0.155E+07 \$
LOCAL SHARE				0.205E+07 \$
ANNUAL DEBT SERVICE				0.209E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.298E+05 \$/YEAR
CONTINGENCY RESERVE				0.298E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.340E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.733E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.733E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.733E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.733E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.611E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.611E+02 \$/MONTH

***** Run #341

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0

Facility # 9

***** Q=0.31

COST SUMMARY

Irrigation

Y 2000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	73839	7628	3533	2321	1709	0	0	7563
SCREENS	24103	2601	63	56	60	482	0	661
OXID DIT	110841	12479	9351	0	8719	708	0	18778
RCY PUMP	99587	10286	2570	1592	1353	697	0	6212
0 SEC CL	172132	16982	2398	1061	487	1721	0	5667
CHLORINA	70380	7615	1988	267	7669	3272	1334	14530
SLOW INF	723916	76161	8456	4365	0	1848	0	14669
INT PUMP	109061	11274	3091	1968	1349	763	0	7171
DRY BEDS	31448	3116	2444	841	0	283	0	3568
SUB TOTAL	1415311	148146	33898	12475	21350	9776	1334	78819

DIRECT COSTS

PROFIT/OVERHEAD 311368 \$

SUB TOTAL (OTHER DIRECT) 311368 \$ TOTAL CONSTRUCTION COST 1726679 \$

INDIRECT COSTS

MISC NON CONST COSTS 86333 \$
 ADMIN/LEGAL 34533 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 121292 \$
 INSPECTION 34533 \$
 CONTINGENCIES 138134 \$
 TECHNICAL COSTS 34533 \$

SUB TOTAL (INDIRECT) 449358 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 1001318 \$ (223. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 4184 \$/YR

TOTAL PROJECT COST 3600340 \$ TOTAL CONSTRUCTION COST 1726679 \$
 FINAL YEAR O & M 98818 \$/YR TOTAL STEP III COST 3479048 \$
 INITIAL YEAR O & M 98818 \$/YR PRESENT WORTH (APP. A) 4263277 \$

Run # 341
2000

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
D NUMBER OF BILLING UNITS		0.113E+06
D EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.360E+07 \$
EPA ELIGIBLE COST		0.260E+07 \$
LOCAL SHARE		0.368E+07 \$
ANNUAL DEBT SERVICE		0.375E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.535E+05 \$/YEAR
CONTINGENCY RESERVE		0.535E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.581E+06 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.513E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.513E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.513E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.513E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.428E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.428E+02 \$/MONTH

***** Run#342

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0 Facility# 9
 SECONDARY DRYI 0 HAUL 0

***** Q=0.62

COST SUMMARY

Irrigation Y2010

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	241470	24261	3360	2236	3860	1690	0	11146
PRELIMIN*	76858	7582	3471	1605	835	1921	0	7832
OXID DIT	160434	17092	5248	0	19840	1053	0	26141
0 SEC CL	239359	23615	3008	1326	505	2393	0	7232
RCY PUMP	128802	13331	2811	1821	2716	901	0	8249
CHLORINA	97409	10530	2882	372	7669	4283	2682	17888
SLOW INF	1722915	182387	15331	8169	0	5161	0	28661
INT PUMP	142789	14787	3381	2253	2706	999	0	9339
DRY BEDS	35278	3501	2492	894	0	317	0	3703
HAUL & LF	70318	15567	23	0	0	12505	0	12528
SUB TOTAL	2915638	312657	42012	18679	38134	31228	2682	132719

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS		
PROFIT/OVERHEAD	641440 \$	
SUB TOTAL (OTHER DIRECT)	641440 \$	TOTAL CONSTRUCTION COST 3557078 \$

INDIRECT COSTS	
MISC NON CONST COSTS	177853 \$
ADMIN/LEGAL	71141 \$
201 PLANNING	0 \$
A/E DESIGN FEE	230155 \$
INSPECTION	71141 \$
CONTINGENCIES	284566 \$
TECHNICAL COSTS	71141 \$
SUB TOTAL (INDIRECT)	905997 \$

LAND COSTS	1899138 \$	(422. ACRES)
INTEREST DURING CONSTRUCTION	846969 \$	

ADMINISTRATIVE COST	6063 \$/YR
LABORATORY COST	17559 \$/YR

TOTAL PROJECT COST	7209182 \$	TOTAL CONSTRUCTION COST	3557078 \$
FINAL YEAR O & M	156359 \$/YR	TOTAL STEP III COST	6979027 \$
INITIAL YEAR O & M	156359 \$/YR	PRESENT WORTH (APP. A)	8102365 \$

Run #342
2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.227E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.721E+07 \$
EPA ELIGIBLE COST				0.531E+07 \$
LOCAL SHARE				0.737E+07 \$
ANNUAL DEBT SERVICE				0.750E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.107E+06 \$/YEAR
CONTINGENCY RESERVE				0.107E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.112E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.493E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.493E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.493E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.493E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.411E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.411E+02 \$/MONTH

Run #343

LIQUID RAW 0 PREL 0 OXID 0 COAG 0 FILT 0 CHLO 0
 SECONDARY DRYI 0 HAUL 0

Facility # 15

Q=0.63

COST SUMMARY

Discharge

Y 1990

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	241609	24275	3362	2205	3883	1691	0	11141
PRELIMIN*	85353	8421	3479	1584	837	2133	0	8033
OXID DIT	164159	17463	5267	0	20650	1056	0	26973
0 SEC CL	239359	23615	3015	1308	506	2393	0	7222
RCY PUMP	137592	14246	2813	1796	2733	963	0	8305
COAG F/C	394571	38928	24788	7034	347	3945	14022	50136
FILTRATI	453293	47910	417	219	339	12864	0	13839
CHLORINA	97467	10535	2891	368	7669	4284	2699	17911
DRY BEDS	39866	3957	2541	898	0	358	0	3797
HAUL &LF	70362	15572	24	0	0	12505	0	12529
ALUM F/S	89231	8803	4074	0	0	1784	0	5858
SUB TOTAL	2012867	213728	52677	15415	36968	43980	16722	165744

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 442830 \$

SUB TOTAL (OTHER DIRECT) 442830 \$ TOTAL CONSTRUCTION COST 2455697 \$

INDIRECT COSTS

MISC NON CONST COSTS 122784 \$

ADMIN/LEGAL 49113 \$

201 PLANNING 0 \$

A/E DESIGN FEE 165470 \$

INSPECTION 49113 \$

CONTINGENCIES 196455 \$

TECHNICAL COSTS 49113 \$

SUB TOTAL (INDIRECT) 632048 \$

LAND COSTS 45000 \$ (10. ACRES)

INTEREST DURING CONSTRUCTION 417046 \$

ADMINISTRATIVE COST 6084 \$/YR

LABORATORY COST 17576 \$/YR

TOTAL PROJECT COST 3549791 \$ TOTAL CONSTRUCTION COST 2455697 \$
 FINAL YEAR O & M 189425 \$/YR TOTAL STEP III COST 3384321 \$
 INITIAL YEAR O & M 189425 \$/YR PRESENT WORTH (APP. A) 5455886 \$

Run # 343
1990

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00	PERCENT
D STATE GRANT		0.000E+00	PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01	PERCENT
BONDS	PERCENT	RATE	LIFE
I REVENUE	100.00	8.00	20
D GENERAL OBLIGATION	0.00	0.00	30
D OTHER	0.00	0.00	30
D NUMBER OF BILLING UNITS		0.229E+06	
D EXISTING SEWER RATE		0.000E+00	\$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01	
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03	GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00	\$/YEAR
TOTAL PROJECT COST		0.355E+07	\$
EPA ELIGIBLE COST		0.350E+07	\$
LOCAL SHARE		0.365E+07	\$
ANNUAL DEBT SERVICE		0.372E+06	\$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.532E+05	\$/YEAR
CONTINGENCY RESERVE		0.532E+05	\$/YEAR
TOTAL ANNUAL OPERATING COST		0.668E+06	\$/YEAR
TREATMENT COST			
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.292E+01	\$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.292E+01	\$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.292E+01	\$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.292E+01	\$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.243E+02	\$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.243E+02	\$/MONTH

CEDAR CREEK WITH 2E WWTP, DISCHARGE, YEAR 20 ANALYZE 1 TRAIN NO 1

Run # 344

LIQUID RAW 0 PREL 0 OXID 0 COAG 0 FILT 0 CHLO 0
 SECONDARY DRYI 0 HAUL 0

Facility #15

Q = 1.78

COST SUMMARY

Discharge

Y 2000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	405732	40810	3798	2575	10264	2840	0	19477
PRELIMIN*	157863	15574	4948	2185	1357	3946	0	12436
OXID DIT	547451	59856	9283	0	58526	4073	0	71882
0 SEC CL	396603	39129	5070	2222	601	3966	0	11859
RCY PUMP	206950	21454	3216	2127	7728	1448	0	14519
COAG F/C	682921	67377	24788	7141	985	6829	39742	79485
FILTRATI	771948	81475	758	410	933	21448	0	23549
CHLORINA	120134	12772	5031	624	7669	4859	7650	25833
DRY BEDS	105236	10472	3892	1396	0	947	0	6235
HAUL & LF	72013	15734	70	0	0	12505	0	12575
ALUM F/S	89231	8803	4074	0	0	1784	0	5858
SUB TOTAL	3556087	373462	64932	18682	88066	64649	47392	283708

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 782339 \$

SUB TOTAL (OTHER DIRECT) 782339 \$ TOTAL CONSTRUCTION COST 4338426 \$

INDIRECT COSTS

MISC NON CONST COSTS 216921 \$

ADMIN/LEGAL 86768 \$

201 PLANNING 0 \$

A/E DESIGN FEE 275094 \$

INSPECTION 86768 \$

CONTINGENCIES 347074 \$

TECHNICAL COSTS 86768 \$

SUB TOTAL (INDIRECT) 1099393 \$

LAND COSTS 54000 \$ (12. ACRES)

INTEREST DURING CONSTRUCTION 731098 \$

ADMINISTRATIVE COST 10585 \$/YR

LABORATORY COST 20581 \$/YR

TOTAL PROJECT COST 6222917 \$ TOTAL CONSTRUCTION COST 4338426 \$

FINAL YEAR O & M 314891 \$/YR TOTAL STEP III COST 5947823 \$

INITIAL YEAR O & M 314891 \$/YR PRESENT WORTH (APP. A) 9425209 \$

Run #344
2000

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
D NUMBER OF BILLING UNITS		0.649E+06
D EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.622E+07 \$
EPA ELIGIBLE COST		0.617E+07 \$
LOCAL SHARE		0.641E+07 \$
ANNUAL DEBT SERVICE		0.653E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.932E+05 \$/YEAR
CONTINGENCY RESERVE		0.932E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.115E+07 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.178E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.178E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.178E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.178E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.148E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.148E+02 \$/MONTH

LIQUID RAW 0 PREL 0 OXID 0 COAG 0 FILT 0 CHLO 0
 SECONDARY DRYI 0 HAUL 0

Run# 345

Facility #15

Q = 2.76

Y 2010

COST SUMMARY

Discharge

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	500937	50420	4274	2919	15231	3506	0	25930
PRELIMIN*	207769	20498	5741	2510	1663	5194	0	15108
OXID DIT	697140	76243	11791	0	90836	4751	0	107378
O SEC CL	495540	48890	6606	2932	647	4955	0	15140
RCY PUMP	251290	26051	3403	2290	11981	1759	0	19433
COAG F/C	871422	85975	24788	7206	1528	8714	61682	103918
FILTRATI	1050225	110824	975	535	1431	29089	0	32030
CHLORINA	137539	14489	6355	900	7669	5205	11874	32003
DRY BEDS	165880	16510	4658	1687	0	1492	0	7837
HAUL &LF	73381	15869	109	0	0	12505	0	12614
ALUM F/S	89231	8803	4442	0	0	1784	0	6226
SUB TOTAL	4540358	474578	73147	20982	130991	78958	73556	377617

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 998878 \$

SUB TOTAL (OTHER DIRECT) 998878 \$

TOTAL CONSTRUCTION COST 5539236 \$

INDIRECT COSTS

MISC NON CONST COSTS 276961 \$

ADMIN/LEGAL 110784 \$

201 PLANNING 0 \$

A/E DESIGN FEE 343161 \$

INSPECTION 110784 \$

CONTINGENCIES 443138 \$

TECHNICAL COSTS 110784 \$

SUB TOTAL (INDIRECT) 1395612 \$

LAND COSTS

58500 \$ (13. ACRES)

INTEREST DURING CONSTRUCTION 930989 \$

ADMINISTRATIVE COST 13372 \$/YR

LABORATORY COST 21999 \$/YR

TOTAL PROJECT COST 7924337 \$ TOTAL CONSTRUCTION COST 5539236 \$

FINAL YEAR O & M 413007 \$/YR TOTAL STEP III COST 7581176 \$

INITIAL YEAR O & M 413007 \$/YR PRESENT WORTH (APP. A) 12162956 \$

USER CHARGE SUMMARY

Run # 345
2010

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.101E+07
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.792E+07 \$
EPA ELIGIBLE COST				0.787E+07 \$
LOCAL SHARE				0.816E+07 \$
ANNUAL DEBT SERVICE				0.831E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.119E+06 \$/YEAR
CONTINGENCY RESERVE				0.119E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.148E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.147E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.147E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.147E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.147E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.123E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.123E+02 \$/MONTH

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Run # 346

Facility # 15

COST SUMMARY

Irrigation

Q = 0.63

Y 1990

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	241609	24275	3362	2239	3883	1691	0	11175
PRELIMIN*	85353	8421	3479	1608	837	2133	0	8057
OXID DIT	160880	17136	5267	0	19967	1053	0	26287
O SEC CL	239359	23615	3015	1328	506	2393	0	7242
RCY PUMP	137592	14246	2813	1823	2733	963	0	8332
CHLORINA	97467	10535	2891	374	7669	4284	2699	17917
SLOW INF	1745369	184791	15415	8216	0	5245	0	28876
INT PUMP	143155	14825	3384	2255	2724	1002	0	9365
DRY BEDS	41138	4083	2498	896	0	370	0	3764
HAUL & LF	70324	15568	23	0	0	12505	0	12528
SUB TOTAL	2962250	317499	42152	18743	38322	31643	2699	133543

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 651695 \$

SUB TOTAL (OTHER DIRECT) 651695 \$ TOTAL CONSTRUCTION COST 3613945 \$

INDIRECT COSTS

MISC NON CONST COSTS 180697 \$
 ADMIN/LEGAL 72278 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 233447 \$
 INSPECTION 72278 \$
 CONTINGENCIES 289115 \$
 TECHNICAL COSTS 72278 \$

SUB TOTAL (INDIRECT) 920093 \$

LAND COSTS 1910473 \$ (425. ACRES)

INTEREST DURING CONSTRUCTION 857925 \$

ADMINISTRATIVE COST 6084 \$/YR
 LABORATORY COST 17576 \$/YR

TOTAL PROJECT COST 7302436 \$ TOTAL CONSTRUCTION COST 3613945 \$
 FINAL YEAR O & M 157222 \$/YR TOTAL STEP III COST 7068989 \$
 INITIAL YEAR O & M 157222 \$/YR PRESENT WORTH (APP. A) 8195564 \$

USER CHARGE SUMMARY

Run #346
1990

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.229E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.730E+07 \$
EPA ELIGIBLE COST				0.539E+07 \$
LOCAL SHARE				0.746E+07 \$
ANNUAL DEBT SERVICE				0.760E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.109E+06 \$/YEAR
CONTINGENCY RESERVE				0.109E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.113E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.496E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.496E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.496E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.496E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.414E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.414E+02 \$/MONTH

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Run # 347
 Facility # 15
 Q = 1.78
 Y 2000

COST SUMMARY *Irrigation*

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	405732	40810	3798	2708	10264	2840	0	19610
PRELIMIN*	157863	15574	4948	2298	1357	3946	0	12549
OXID DIT	531291	58021	9283	0	56590	3905	0	69778
0 SEC CL	396603	39129	5070	2337	601	3966	0	11974
RCY PUMP	206950	21454	3216	2236	7728	1448	0	14628
CHLORINA	120134	12772	5031	656	7669	4859	7650	25865
SLOW INF	4644134	491293	37538	21034	0	13219	0	71791
INT PUMP	221374	22950	3923	2799	7701	1549	0	15972
DRY BEDS	105177	10466	3826	1443	0	946	0	6215
HAUL & LF	71910	15724	67	0	0	12505	0	12572
SUB TOTAL	6861172	728198	76703	35515	91913	49188	7650	260954

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS			
PROFIT/OVERHEAD	1509457 \$		
SUB TOTAL (OTHER DIRECT)	1509457 \$	TOTAL CONSTRUCTION COST	8370629 \$

INDIRECT COSTS	
MISC NON CONST COSTS	418531 \$
ADMIN/LEGAL	167412 \$
201 PLANNING	0 \$
A/E DESIGN FEE	500784 \$
INSPECTION	167412 \$
CONTINGENCIES	669650 \$
TECHNICAL COSTS	167412 \$
SUB TOTAL (INDIRECT)	2091201 \$

LAND COSTS	5110682 \$	(1136. ACRES)
INTEREST DURING CONSTRUCTION	2073090 \$	

ADMINISTRATIVE COST	10585 \$/YR
LABORATORY COST	20581 \$/YR

TOTAL PROJECT COST	17645604 \$	TOTAL CONSTRUCTION COST	8370629 \$
FINAL YEAR O & M	292138 \$/YR	TOTAL STEP III COST	17144820 \$
INITIAL YEAR O & M	292138 \$/YR	PRESENT WORTH (APP. A)	18595032 \$

USER CHARGE SUMMARY

Run #347
2000

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.649E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.176E+08 \$
EPA ELIGIBLE COST				0.125E+08 \$
LOCAL SHARE				0.180E+08 \$
ANNUAL DEBT SERVICE				0.184E+07 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.262E+06 \$/YEAR
CONTINGENCY RESERVE				0.262E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.265E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.409E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.409E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.409E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.409E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.341E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.341E+02 \$/MONTH

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Run #348

Facility #15

COST SUMMARY

Irrigation

Q=2.76
 Y 2010

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	500937	50420	4274	3119	15231	3506	0	26130
PRELIMIN*	207769	20498	5741	2682	1663	5194	0	15280
OXID DIT	571073	60668	11791	0	87831	2754	0	102376
O SEC CL	495540	48890	6606	3132	647	4955	0	15340
RCY PUMP	251290	26051	3403	2447	11981	1759	0	19590
CHLORINA	137539	14489	6355	962	7669	5205	11874	32065
SLOW INF	7098327	750157	54668	31407	0	19429	0	105504
INT PUMP	269382	27924	4545	3310	11940	1885	0	21680
DRY BEDS	166247	16547	4579	1771	0	1496	0	7846
HAUL & LF	73224	15854	105	0	0	12505	0	12610
SUB TOTAL	9771332	1031503	102071	48834	136967	58690	11874	358421

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 2149693 \$

SUB TOTAL (OTHER DIRECT) 2149693 \$

TOTAL CONSTRUCTION COST 11921025 \$

INDIRECT COSTS

MISC NON CONST COSTS 596051 \$

ADMIN/LEGAL 238420 \$

201 PLANNING 0 \$

A/E DESIGN FEE 695534 \$

INSPECTION 238420 \$

CONTINGENCIES 953682 \$

TECHNICAL COSTS 238420 \$

SUB TOTAL (INDIRECT) 2960527 \$

LAND COSTS 7807564 \$ (1735. ACRES)

INTEREST DURING CONSTRUCTION 3020488 \$

ADMINISTRATIVE COST 13372 \$/YR

LABORATORY COST 21999 \$/YR

TOTAL PROJECT COST 25709604 \$ TOTAL CONSTRUCTION COST 11921025 \$

FINAL YEAR O & M 393809 \$/YR TOTAL STEP III COST 25014070 \$

INITIAL YEAR O & M 393809 \$/YR PRESENT WORTH (APP. A) 26587904 \$

USER CHARGE SUMMARY

Run #348
2010

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.101E+07
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.257E+08 \$
EPA ELIGIBLE COST				0.179E+08 \$
LOCAL SHARE				0.262E+08 \$
ANNUAL DEBT SERVICE				0.267E+07 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.382E+06 \$/YEAR
CONTINGENCY RESERVE				0.382E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.383E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.381E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.381E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.381E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.381E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.317E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.317E+02 \$/MONTH

CEDAR CK, NOT 2E, WTP DISCHARGE, YEAR 1990 ANALYZE 1 TRAIN NO 1

***** Run # 349

LIQUID RAW 0 PREL 0 OXID 0 COAG 0 FILT 0 CHLO 0
 SECONDARY DRYI 0

Facility # 15

Q=0.43

Y 1990

COST SUMMARY

Discharge

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	83889	8671	3662	2368	2388	0	0	8418
SCREENS	24202	2611	100	62	65	484	0	711
OXID DIT	127531	14264	10939	0	11989	537	0	23465
RCY PUMP	111948	11575	2682	1633	1889	783	0	6987
O SEC CL	202618	19990	2673	1135	487	2026	0	6321
COAG F/C	157929	15581	4662	1513	738	1579	21748	30240
FILTRATI	306848	32974	2705	1359	236	10898	0	15198
CHLORINA	83298	9137	2375	295	7669	3770	1864	15973
DRY BEDS	38792	3845	2444	821	0	349	0	3614
ALUM F/S	89231	8803	4074	0	0	1784	0	5858
SUB TOTAL	1226291	127456	36321	9188	25465	22214	23612	116785

DIRECT COSTS

PROFIT/OVERHEAD 269784 \$

SUB TOTAL (OTHER DIRECT) 269784 \$

TOTAL CONSTRUCTION COST 1496075 \$

INDIRECT COSTS

MISC NON CONST COSTS 74803 \$

ADMIN/LEGAL 29921 \$

201 PLANNING 0 \$

A/E DESIGN FEE 106970 \$

INSPECTION 29921 \$

CONTINGENCIES 119686 \$

TECHNICAL COSTS 29921 \$

SUB TOTAL (INDIRECT) 391222 \$

LAND COSTS

40500 \$ (9. ACRES)

INTEREST DURING CONSTRUCTION 256638 \$

ADMINISTRATIVE COST

4997 \$/YR

LABORATORY COST

16618 \$/YR

TOTAL PROJECT COST 2184435 \$ TOTAL CONSTRUCTION COST 1496075 \$

FINAL YEAR O & M 138418 \$/YR TOTAL STEP III COST 2077465 \$

INITIAL YEAR O & M 138418 \$/YR PRESENT WORTH (APP. A) 3639378 \$

Run#349

USER CHARGE SUMMARY

Facility #15

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.158E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.218E+07 \$
EPA ELIGIBLE COST				0.214E+07 \$
LOCAL SHARE				0.225E+07 \$
ANNUAL DEBT SERVICE				0.229E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.327E+05 \$/YEAR
CONTINGENCY RESERVE				0.327E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.433E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.274E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.274E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.274E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.274E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.228E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.228E+02 \$/MONTH

Q=0.43

1990

Run #350

LIQUID RAW 0 PREL 0 OXID 0 COAG 0 FILT 0 CHLO 0
 SECONDARY DRYI 0 HAUL 0

Facility #15

Q=0.96

COST SUMMARY

Discharge

Y2000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	289483	29158	3534	2347	5803	2026	0	13710
PRELIMIN*	99769	9843	4018	1805	1020	2494	0	9337
OXID DIT	271135	29987	6640	0	31618	2502	0	40760
0 SEC CL	295057	29110	3499	1511	543	2950	0	8503
RCY PUMP	152094	15755	2971	1922	4181	1064	0	10138
COAG F/C	491615	48503	24788	7071	532	4916	21470	58777
FILTRATI	505079	53350	533	283	513	14202	0	15531
CHLORINA	101555	10939	3626	456	7669	4314	4133	20198
DRY BEDS	49719	4944	3025	1075	0	447	0	4547
HAUL &LF	70850	15620	38	0	0	12505	0	12543
ALUM F/S	89231	8803	4074	0	0	1784	0	5858
SUB TOTAL	2415592	256016	56752	16473	51882	49208	25603	199902

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 531430 \$

SUB TOTAL (OTHER DIRECT) 531430 \$ TOTAL CONSTRUCTION COST 2947022 \$

INDIRECT COSTS

MISC NON CONST COSTS 147351 \$

ADMIN/LEGAL 58940 \$

201 PLANNING 0 \$

A/E DESIGN FEE 194564 \$

INSPECTION 58940 \$

CONTINGENCIES 235761 \$

TECHNICAL COSTS 58940 \$

SUB TOTAL (INDIRECT) 754496 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 45000 \$ (10. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 7630 \$/YR

TOTAL PROJECT COST 4245274 \$ TOTAL CONSTRUCTION COST 2947022 \$

FINAL YEAR O & M 226298 \$/YR TOTAL STEP III COST 4050710 \$

INITIAL YEAR O & M 226298 \$/YR PRESENT WORTH (APP. A) 6548226 \$

Run #350
2000

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00	PERCENT
D STATE GRANT		0.000E+00	PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01	PERCENT
BONDS	PERCENT RATE LIFE		
I REVENUE	100.00 8.00 20		
D GENERAL OBLIGATION	0.00 0.00 30		
D OTHER	0.00 0.00 30		
D NUMBER OF BILLING UNITS		0.350E+06	
D EXISTING SEWER RATE		0.000E+00	\$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01	
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03	GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00	\$/YEAR
TOTAL PROJECT COST		0.425E+07	\$
EPA ELIGIBLE COST		0.420E+07	\$
LOCAL SHARE		0.437E+07	\$
ANNUAL DEBT SERVICE		0.445E+06	\$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.636E+05	\$/YEAR
CONTINGENCY RESERVE		0.636E+05	\$/YEAR
TOTAL ANNUAL OPERATING COST		0.799E+06	\$/YEAR
TREATMENT COST			
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.228E+01	\$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.228E+01	\$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.228E+01	\$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.228E+01	\$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.190E+02	\$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.190E+02	\$/MONTH

***** Run #351

LIQUID RAW 0 PREL 0 OXID 0 COAG 0 FILT 0 CHLO 0
 SECONDARY DRYI 0 HAUL 0

Facility #15

***** Q=1.60

COST SUMMARY

Discharge Y2010

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	396378	39887	3752	2534	9324	2774	0	18384
PRELIMIN*	137064	13522	4775	2115	1292	3426	0	11608
OXID DIT	504619	54934	8768	0	52696	3588	0	65052
O SEC CL	377275	37222	4759	2080	591	3772	0	11202
RCY PUMP	187826	19469	3173	2090	6960	1314	0	13537
COAG F/C	645087	63645	24788	7128	886	6450	35783	75035
FILTRATI	662705	69939	714	385	842	18388	0	20329
CHLORINA	118882	12648	4758	591	7669	4849	6888	24755
DRY BEDS	82177	8175	3728	1335	0	739	0	5802
HAUL &LF	71764	15710	63	0	0	12505	0	12568
ALUM F/S	89231	8803	4074	0	0	1784	0	5858
SUB TOTAL	3273011	343959	63357	18262	80266	59595	42672	264130

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 720062 \$

SUB TOTAL (OTHER DIRECT) 720062 \$

TOTAL CONSTRUCTION COST 3993073 \$

INDIRECT COSTS

MISC NON CONST COSTS 199653 \$

ADMIN/LEGAL 79861 \$

201 PLANNING 0 \$

A/E DESIGN FEE 255307 \$

INSPECTION 79861 \$

CONTINGENCIES 319445 \$

TECHNICAL COSTS 79861 \$

SUB TOTAL (INDIRECT) 1013988 \$

LAND COSTS

54000 \$ (12. ACRES)

INTEREST DURING CONSTRUCTION 673753 \$

ADMINISTRATIVE COST

10011 \$/YR

LABORATORY COST

20257 \$/YR

TOTAL PROJECT COST 5734814 \$ TOTAL CONSTRUCTION COST 3993073 \$

FINAL YEAR O & M 294423 \$/YR TOTAL STEP III COST 5479507 \$

INITIAL YEAR O & M 294423 \$/YR PRESENT WORTH (APP. A) 8732228 \$

Run # 351
2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.584E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.573E+07 \$
EPA ELIGIBLE COST				0.568E+07 \$
LOCAL SHARE				0.591E+07 \$
ANNUAL DEBT SERVICE				0.601E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.859E+05 \$/YEAR
CONTINGENCY RESERVE				0.859E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.107E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.183E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.183E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.183E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.183E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.152E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.152E+02 \$/MONTH

Run #352

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0

Facility #15

Q=0.43

COST SUMMARY

Irrigation

Y 1990

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	83889	8671	3662	2454	2388	0	0	8504
SCREENS	24202	2611	100	65	65	484	0	714
OXID DIT	127531	14264	10939	0	11989	537	0	23465
RCY PUMP	111948	11575	2682	1692	1889	783	0	7046
0 SEC CL	202618	19990	2673	1177	487	2026	0	6363
CHLORINA	83298	9137	2375	305	7669	3770	1864	15983
SLOW INF	969834	102010	11241	5872	0	2481	0	19594
INT PUMP	123797	12809	3227	2093	1882	866	0	8068
DRY BEDS	38704	3836	2444	851	0	348	0	3643
SUB TOTAL	1765825	184908	39346	14512	26373	11300	1864	93380

DIRECT COSTS

PROFIT/OVERHEAD 388481 \$

SUB TOTAL (OTHER DIRECT) 388481 \$

TOTAL CONSTRUCTION COST 2154307 \$

INDIRECT COSTS

MISC NON CONST COSTS 107715 \$
 ADMIN/LEGAL 43086 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 147377 \$
 INSPECTION 43086 \$
 CONTINGENCIES 172344 \$
 TECHNICAL COSTS 43086 \$

SUB TOTAL (INDIRECT) 556694 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 1357241 \$ (302. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 4997 \$/YR
 16618 \$/YR

TOTAL PROJECT COST 4609826 \$ TOTAL CONSTRUCTION COST 2154307 \$
 FINAL YEAR O & M 115012 \$/YR TOTAL STEP III COST 4462449 \$
 INITIAL YEAR O & M 115012 \$/YR PRESENT WORTH (APP. A) 5298944 \$

Run # 352
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.158E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.461E+07 \$
EPA ELIGIBLE COST				0.325E+07 \$
LOCAL SHARE				0.471E+07 \$
ANNUAL DEBT SERVICE				0.479E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.685E+05 \$/YEAR
CONTINGENCY RESERVE				0.685E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.731E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.463E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.463E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.463E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.463E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.386E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.386E+02 \$/MONTH

Run #353

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Facility #15

Q=0.96

COST SUMMARY

Irrigation Y2000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	289483	29158	3534	2416	5803	2026	0	13779
PRELIMIN*	99769	9843	4018	1858	1020	2494	0	9390
OXID DIT	261591	28901	6640	0	30572	2391	0	39603
O SEC CL	295057	29110	3499	1556	543	2950	0	8548
RCY PUMP	152094	15755	2971	1979	4181	1064	0	10195
CHLORINA	101555	10939	3626	470	7669	4314	4133	20212
SLOW INF	2577785	272788	22178	12046	0	7573	0	41797
INT PUMP	170262	17644	3575	2448	4166	1191	0	11380
DRY BEDS	50266	4998	2974	1087	0	452	0	4513
HAUL & LF	70793	15614	36	0	0	12505	0	12541
SUB TOTAL	4068659	434755	53056	23863	53957	36964	4133	171958

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 895105 \$

SUB TOTAL (OTHER DIRECT) 895105 \$

TOTAL CONSTRUCTION COST 4963764 \$

INDIRECT COSTS

MISC NON CONST COSTS 248188 \$

ADMIN/LEGAL 99275 \$

201 PLANNING 0 \$

A/E DESIGN FEE 310667 \$

INSPECTION 99275 \$

CONTINGENCIES 397101 \$

TECHNICAL COSTS 99275 \$

SUB TOTAL (INDIRECT) 1253781 \$

LAND COSTS 2846971 \$ (633. ACRES)

INTEREST DURING CONSTRUCTION 1206713 \$

ADMINISTRATIVE COST 7630 \$/YR

LABORATORY COST 18748 \$/YR

TOTAL PROJECT COST 10271230 \$ TOTAL CONSTRUCTION COST 4963764 \$

FINAL YEAR O & M 198354 \$/YR TOTAL STEP III COST 9960563 \$

INITIAL YEAR O & M 198354 \$/YR PRESENT WORTH (APP. A) 11209205 \$

Run #353
2000

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.350E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.103E+08 \$
EPA ELIGIBLE COST				0.742E+07 \$
LOCAL SHARE				0.105E+08 \$
ANNUAL DEBT SERVICE				0.107E+07 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.153E+06 \$/YEAR
CONTINGENCY RESERVE				0.153E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.157E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.449E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.449E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.449E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.449E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.374E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.374E+02 \$/MONTH

***** Run #354

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Facility #15

***** Q=1.60

COST SUMMARY

Irrigation Y2010

UNIT	CAPITAL COST	AMMORT COST	OPER LABOR COST	MAINT LABOR COST	POWER COST	MATERIAL COST	CHEMICAL COST	TOTAL O & M COST
	\$	\$/YR	\$/YR	\$/YR	\$/YR	\$/YR	\$/YR	\$/YR
RAW PUMP	396378	39887	3752	2655	9324	2774	0	18505
PRELIMIN*	137064	13522	4775	2216	1292	3426	0	11709
OXID DIT	490745	53373	8768	0	50953	3454	0	63175
O SEC CL	377275	37222	4759	2180	591	3772	0	11302
RCY PUMP	187826	19469	3173	2190	6960	1314	0	13637
CHLORINA	118882	12648	4758	619	7669	4849	6888	24783
SLOW INF	4195128	443920	34317	19122	0	12055	0	65494
INT PUMP	211477	21924	3817	2708	6936	1480	0	14941
DRY BEDS	83563	8313	3665	1375	0	752	0	5792
HAUL & LF	71671	15701	61	0	0	12505	0	12566
SUB TOTAL	6270011	665983	71849	33068	83729	46386	6888	241904

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 1379402 \$

SUB TOTAL (OTHER DIRECT) 1379402 \$

TOTAL CONSTRUCTION COST 7649413 \$

INDIRECT COSTS

MISC NON CONST COSTS 382470 \$
 ADMIN/LEGAL 152988 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 460906 \$
 INSPECTION 152988 \$
 CONTINGENCIES 611953 \$
 TECHNICAL COSTS 152988 \$

SUB TOTAL (INDIRECT) 1914293 \$

LAND COSTS

4622899 \$ (1027. ACRES)
 INTEREST DURING CONSTRUCTION 1888592 \$

ADMINISTRATIVE COST

10011 \$/YR
 LABORATORY COST 20257 \$/YR

TOTAL PROJECT COST 16075198 \$ TOTAL CONSTRUCTION COST 7649413 \$
 FINAL YEAR O & M 272191 \$/YR TOTAL STEP III COST 15614292 \$
 INITIAL YEAR O & M 272191 \$/YR PRESENT WORTH (APP. A) 17023428 \$

Run #354
2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.584E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.161E+08 \$
EPA ELIGIBLE COST				0.115E+08 \$
LOCAL SHARE				0.164E+08 \$
ANNUAL DEBT SERVICE				0.167E+07 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.239E+06 \$/YEAR
CONTINGENCY RESERVE				0.239E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.242E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.415E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.415E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.415E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.415E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.346E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.346E+02 \$/MONTH

DRY CREEK LOCAL WWTP, DISCHARGE, YEAR 1990, ANALYZE 1 TRAIN NO 1

Run #355

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0

Facility No.10

Q=0.19

COST SUMMARY

Discharge

Y 1990

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	73075	7548	3521	2171	1070	0	0	6762
SCREENS	24095	2600	33	44	52	481	0	610
OXID DIT	124128	13582	7505	0	4867	744	0	13116
RCY PUMP	98514	10175	2419	1395	848	689	0	5351
O SEC CL	153853	15179	2376	987	487	1538	0	5388
CHLORINA	68037	7384	1549	217	7669	3283	835	13553
POST AER	34	3	0	0	0	0	0	0
DRY BEDS	34266	3396	2444	790	0	308	0	3542
SUB TOTAL	576007	59869	19851	5606	14995	7047	835	48322

DIRECT COSTS

PROFIT/OVERHEAD 126721 \$

SUB TOTAL (OTHER DIRECT) 126721 \$

TOTAL CONSTRUCTION COST 702728 \$

INDIRECT COSTS

MISC NON CONST COSTS 35136 \$
 ADMIN/LEGAL 14054 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 55487 \$
 INSPECTION 14054 \$
 CONTINGENCIES 56218 \$
 TECHNICAL COSTS 14054 \$

SUB TOTAL (INDIRECT) 189003 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 40500 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 3261 \$/YR

TOTAL PROJECT COST 1056334 \$ TOTAL CONSTRUCTION COST 702728 \$
 FINAL YEAR O & M 66312 \$/YR TOTAL STEP III COST 1000847 \$
 INITIAL YEAR O & M 66312 \$/YR PRESENT WORTH (APP. A) 1788783 \$

Run #355
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.708E+05
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.106E+07 \$
EPA ELIGIBLE COST				0.102E+07 \$
LOCAL SHARE				0.109E+07 \$
ANNUAL DEBT SERVICE				0.111E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.158E+05 \$/YEAR
CONTINGENCY RESERVE				0.158E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.209E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.295E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.295E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.295E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.295E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.246E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.246E+02 \$/MONTH

***** Run#356

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0 HAUL 0

Facility #10

***** Q=0.82

COST SUMMARY

Discharge

4 2000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	284810	28697	3467	2178	4975	1993	0	12613
PRELIMIN*	105151	10374	3801	1632	945	2628	0	9006
OXID DIT	234334	25749	6074	0	26842	2104	0	35020
O SEC CL	301301	29726	3627	1487	548	3013	0	8675
RCY PUMP	157393	16306	2910	1781	3551	1101	0	9343
CHLORINA	99926	10778	3324	399	7669	4301	3508	19201
POST AER	146	14	0	0	0	0	0	0
DRY BEDS	61822	6148	2829	954	0	556	0	4339
HAUL & LF	70639	15599	32	0	0	12505	0	12537
SUB TOTAL	1315526	143396	26068	8433	44534	28204	3508	110734

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS
 PROFIT/OVERHEAD

289415 \$

SUB TOTAL (OTHER DIRECT)

289415 \$

TOTAL CONSTRUCTION COST 1604941 \$

INDIRECT COSTS

MISC NON CONST COSTS 80247 \$
 ADMIN/LEGAL 32098 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 113757 \$
 INSPECTION 32098 \$
 CONTINGENCIES 128395 \$
 TECHNICAL COSTS 32098 \$

SUB TOTAL (INDIRECT)

418693 \$

LAND COSTS

45000 \$ (10. ACRES)

INTEREST DURING CONSTRUCTION

275386 \$

ADMINISTRATIVE COST
 LABORATORY COST

6994 \$/YR
 18289 \$/YR

TOTAL PROJECT COST 2344020 \$ TOTAL CONSTRUCTION COST 1604941 \$
 FINAL YEAR O & M 136033 \$/YR TOTAL STEP III COST 2230263 \$
 INITIAL YEAR O & M 136033 \$/YR PRESENT WORTH (APP. A) 3856892 \$

USER CHARGE SUMMARY

Run #356
2000

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.297E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.234E+07 \$
EPA ELIGIBLE COST				0.230E+07 \$
LOCAL SHARE				0.241E+07 \$
ANNUAL DEBT SERVICE				0.246E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.351E+05 \$/YEAR
CONTINGENCY RESERVE				0.351E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.452E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.152E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.152E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.152E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.152E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.127E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.127E+02 \$/MONTH

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0 HAUL 0

Run #357
 Facility #10
 Q=1.16
 42010

COST SUMMARY

Discharge

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	298629	30078	3612	2305	6915	2090	0	14922
PRELIMIN*	132674	13089	4281	1826	1113	3316	0	10536
OXID DIT	362193	38255	7354	0	38139	1841	0	47334
O SEC CL	358087	35329	4481	1859	581	3580	0	10501
RCY PUMP	183727	19043	3044	1893	5041	1286	0	11264
CHLORINA	109382	11711	4007	479	7669	4578	4985	21718
POST AER	208	20	0	0	0	0	0	0
DRY BEDS	93789	9332	3266	1111	0	844	0	5221
HAUL &LF	71135	15648	46	0	0	12505	0	12551
SUB TOTAL	1609828	172510	30093	9475	59460	30043	4985	134047

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 354162 \$

SUB TOTAL (OTHER DIRECT) 354162 \$ TOTAL CONSTRUCTION COST 1963990 \$

INDIRECT COSTS

MISC NON CONST COSTS 98199 \$
 ADMIN/LEGAL 39279 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 135835 \$
 INSPECTION 39279 \$
 CONTINGENCIES 157119 \$
 TECHNICAL COSTS 39279 \$

SUB TOTAL (INDIRECT) 508990 \$

LAND COSTS 49500 \$ (11. ACRES)
 INTEREST DURING CONSTRUCTION 335805 \$

ADMINISTRATIVE COST 8430 \$/YR
 LABORATORY COST 19288 \$/YR

TOTAL PROJECT COST 2858285 \$ TOTAL CONSTRUCTION COST 1963990 \$
 FINAL YEAR O & M 161778 \$/YR TOTAL STEP III COST 2722450 \$
 INITIAL YEAR O & M 161778 \$/YR PRESENT WORTH (APP. A) 4632365 \$

Run#357

2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.423E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.286E+07 \$
EPA ELIGIBLE COST				0.281E+07 \$
LOCAL SHARE				0.294E+07 \$
ANNUAL DEBT SERVICE				0.300E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.428E+05 \$/YEAR
CONTINGENCY RESERVE				0.428E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.547E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.129E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.129E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.129E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.129E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.108E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.108E+02 \$/MONTH

DRY CREEK LOCAL WWTP, IRRIGATION, YEAR 1990, ANALYZE 1 TRAIN NO 1

Run #358

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0

Facility #10

Q = 0.19
 4 1990

COST SUMMARY

Irrigation

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	73075	7548	3521	2292	1070	0	0	6873
SCREENS	24095	2600	33	47	52	481	0	613
OXID DIT	124128	13582	7505	0	4867	744	0	13116
RCY PUMP	98514	10175	2419	1466	848	689	0	5422
O SEC CL	141653	13975	2376	1038	487	1416	0	5317
CHLORINA	68037	7384	1549	228	7669	3283	835	13564
SLOW INF	477465	50332	5677	2893	0	1242	0	9812
INT PUMP	91964	9491	2911	1813	845	643	0	6212
DRY BEDS	34754	3444	2444	830	0	312	0	3586
SUB TOTAL	1133690	118534	28439	10601	15840	8815	835	64515

DIRECT COSTS

PROFIT/OVERHEAD 249411 \$

SUB TOTAL (OTHER DIRECT) 249411 \$

TOTAL CONSTRUCTION COST 1383101 \$

INDIRECT COSTS

MISC NON CONST COSTS 69155 \$
 ADMIN/LEGAL 27662 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 99872 \$
 INSPECTION 27662 \$
 CONTINGENCIES 110648 \$
 TECHNICAL COSTS 27662 \$

SUB TOTAL (INDIRECT) 362661 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 659097 \$ (146. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 14714 \$/YR

TOTAL PROJECT COST 2725005 \$ TOTAL CONSTRUCTION COST 1383101 \$
 FINAL YEAR O & M 82508 \$/YR TOTAL STEP III COST 2625133 \$
 INITIAL YEAR O & M 82508 \$/YR PRESENT WORTH (APP. A) 3343546 \$

Run #358
1990

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
D NUMBER OF BILLING UNITS		0.708E+05
D EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.273E+07 \$
EPA ELIGIBLE COST		0.207E+07 \$
LOCAL SHARE		0.279E+07 \$
ANNUAL DEBT SERVICE		0.284E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.406E+05 \$/YEAR
CONTINGENCY RESERVE		0.406E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.447E+06 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.632E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.632E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.632E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.632E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.527E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.527E+02 \$/MONTH

Run #359

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Facility #10

Q=0.82

COST SUMMARY

Irrigation

Y 2000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	284810	28697	3467	2346	4975	1993	0	12781
PRELIMIN*	105151	10374	3801	1757	945	2628	0	9131
OXID DIT	226875	24914	6074	0	25954	2025	0	34053
O SEC CL	270199	26658	3283	1444	528	2701	0	7956
RCY PUMP	157393	16306	2910	1917	3551	1101	0	9479
CHLORINA	99926	10778	3324	430	7669	4301	3508	19232
SLOW INF	2220469	234971	19283	10395	0	6561	0	36239
INT PUMP	159157	16490	3500	2371	3538	1114	0	10523
DRY BEDS	62631	6229	2781	1009	0	563	0	4353
HAUL & LF	70590	15594	31	0	0	12505	0	12536
SUB TOTAL	3657206	391015	48458	21672	47164	35497	3508	156283

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 804585 \$

SUB TOTAL (OTHER DIRECT) 804585 \$

TOTAL CONSTRUCTION COST 4461792 \$

INDIRECT COSTS

MISC NON CONST COSTS 223089 \$

ADMIN/LEGAL 89235 \$

201 PLANNING 0 \$

A/E DESIGN FEE 282137 \$

INSPECTION 89235 \$

CONTINGENCIES 356943 \$

TECHNICAL COSTS 89235 \$

SUB TOTAL (INDIRECT) 1129874 \$

LAND COSTS 2440703 \$ (542. ACRES)

INTEREST DURING CONSTRUCTION 1069309 \$

ADMINISTRATIVE COST 6994 \$/YR

LABORATORY COST 18289 \$/YR

TOTAL PROJECT COST 9101678 \$ TOTAL CONSTRUCTION COST 4461792 \$

FINAL YEAR O & M 181586 \$/YR TOTAL STEP III COST 8819541 \$

INITIAL YEAR O & M 181586 \$/YR PRESENT WORTH (APP. A) 10022964 \$

Run #359

USER CHARGE SUMMARY

2000

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.297E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.910E+07 \$
EPA ELIGIBLE COST				0.666E+07 \$
LOCAL SHARE				0.930E+07 \$
ANNUAL DEBT SERVICE				0.947E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.135E+06 \$/YEAR
CONTINGENCY RESERVE				0.135E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.140E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.471E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.471E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.471E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.471E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.392E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.392E+02 \$/MONTH

***** Run #360

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Facility #10

***** Q=1.16

COST SUMMARY

Irrigation Year 2010

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	298629	30078	3612	2500	6915	2090	0	15117
PRELIMIN*	132674	13089	4281	1981	1113	3316	0	10691
OXID DIT	356389	37678	7354	0	36877	1837	0	46068
O SEC CL	320107	31582	3917	1760	560	3201	0	9438
RCY PUMP	183727	19043	3044	2053	5041	1286	0	11424
CHLORINA	109382	11711	4007	520	7669	4578	4985	21759
SLOW INF	3085248	326552	26031	14269	0	9028	0	49328
INT PUMP	184157	19088	3662	2540	5023	1289	0	12514
DRY BEDS	90406	8995	3211	1185	0	813	0	5209
HAUL & LF	71067	15641	44	0	0	12505	0	12549
SUB TOTAL	4831790	513462	59167	26812	63201	39947	4985	194097

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 1062993 \$

SUB TOTAL (OTHER DIRECT) 1062993 \$

TOTAL CONSTRUCTION COST 5894783 \$

INDIRECT COSTS

MISC NON CONST COSTS 294739 \$
 ADMIN/LEGAL 117895 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 363140 \$
 INSPECTION 117895 \$
 CONTINGENCIES 471582 \$
 TECHNICAL COSTS 117895 \$

SUB TOTAL (INDIRECT) 1483146 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 3398946 \$ (755. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 8430 \$/YR

TOTAL PROJECT COST 12211547 \$ TOTAL CONSTRUCTION COST 5894783 \$
 FINAL YEAR O & M 221834 \$/YR TOTAL STEP III COST 11848407 \$
 INITIAL YEAR O & M 221834 \$/YR PRESENT WORTH (APP. A) 13137062 \$

Run # 360
2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.423E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.122E+08 \$
EPA ELIGIBLE COST				0.881E+07 \$
LOCAL SHARE				0.125E+08 \$
ANNUAL DEBT SERVICE				0.127E+07 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.182E+06 \$/YEAR
CONTINGENCY RESERVE				0.182E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.186E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.439E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.439E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.439E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.439E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.366E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.366E+02 \$/MONTH

Run # 361

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0 HAUL 0

Facility No. 2

Q=0.82

Year 1990

COST SUMMARY

Discharge

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	284942	28710	3469	2180	4998	1994	0	12641
PRELIMIN*	102382	10101	3807	1634	948	2559	0	8948
OXID DIT	235298	25859	6091	0	26974	2117	0	35182
0 SEC CL	301301	29726	3637	1492	549	3013	0	8691
RCY PUMP	154673	16023	2911	1782	3568	1082	0	9343
CHLORINA	99973	10783	3333	400	7669	4301	3526	19229
POST AER	147	14	0	0	0	0	0	0
DRY BEDS	85019	8459	2835	956	0	765	0	4556
HAUL & LF	70645	15599	32	0	0	12505	0	12537
SUB TOTAL	1334383	145278	26119	8447	44708	28338	3526	111127

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 293564 \$

SUB TOTAL (OTHER DIRECT) 293564 \$ TOTAL CONSTRUCTION COST 1627947 \$

INDIRECT COSTS

MISC NON CONST COSTS 81397 \$
 ADMIN/LEGAL 32558 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 115185 \$
 INSPECTION 32558 \$
 CONTINGENCIES 130235 \$
 TECHNICAL COSTS 32558 \$

SUB TOTAL (INDIRECT) 424491 \$

LAND COSTS 45000 \$ (10. ACRES)

INTEREST DURING CONSTRUCTION 279221 \$

ADMINISTRATIVE COST 7012 \$/YR

LABORATORY COST 18302 \$/YR

TOTAL PROJECT COST 2376660 \$ TOTAL CONSTRUCTION COST 1627947 \$
 FINAL YEAR O & M 136455 \$/YR TOTAL STEP III COST 2261475 \$
 INITIAL YEAR O & M 136455 \$/YR PRESENT WORTH (APP. A) 3891327 \$

361
1990

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00	PERCENT
D STATE GRANT		0.000E+00	PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01	PERCENT
BONDS	PERCENT RATE LIFE		
I REVENUE	100.00 8.00 20		
D GENERAL OBLIGATION	0.00 0.00 30		
D OTHER	0.00 0.00 30		
D NUMBER OF BILLING UNITS		0.299E+06	
D EXISTING SEWER RATE		0.000E+00	\$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01	
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03	GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00	\$/YEAR
TOTAL PROJECT COST		0.238E+07	\$
EPA ELIGIBLE COST		0.233E+07	\$
LOCAL SHARE		0.245E+07	\$
ANNUAL DEBT SERVICE		0.249E+06	\$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.356E+05	\$/YEAR
CONTINGENCY RESERVE		0.356E+05	\$/YEAR
TOTAL ANNUAL OPERATING COST		0.457E+06	\$/YEAR
TREATMENT COST			
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.153E+01	\$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.153E+01	\$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.153E+01	\$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.153E+01	\$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.127E+02	\$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.127E+02	\$/MONTH

Run # 362

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0 HAUL 0

Facility No. 2

Q = 1.19

COST SUMMARY

Discharge

Year 2000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	299604	30174	3624	2315	7093	2097	0	15129
PRELIMIN*	121473	11984	4320	1842	1127	3036	0	10325
OXID DIT	365794	38615	7463	0	39193	1844	0	48500
0 SEC CL	364468	35958	4555	1892	584	3644	0	10675
RCY PUMP	173149	17944	3055	1902	5180	1212	0	11349
CHLORINA	109676	11740	4065	486	7669	4580	5123	21923
POST AER	214	21	0	0	0	0	0	0
DRY BEDS	70610	7024	3303	1124	0	635	0	5062
HAUL & LF	71181	15652	47	0	0	12505	0	12552
SUB TOTAL	1576171	169116	30436	9563	60848	29556	5123	135515

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 346757 \$

SUB TOTAL (OTHER DIRECT) 346757 \$ TOTAL CONSTRUCTION COST 1922928 \$

INDIRECT COSTS

MISC NON CONST COSTS 96146 \$
 ADMIN/LEGAL 38458 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 133331 \$
 INSPECTION 38458 \$
 CONTINGENCIES 153834 \$
 TECHNICAL COSTS 38458 \$

SUB TOTAL (INDIRECT) 498685 \$

LAND COSTS 49500 \$ (11. ACRES)

INTEREST DURING CONSTRUCTION 328966 \$

ADMINISTRATIVE COST 8553 \$/YR

LABORATORY COST 19368 \$/YR

TOTAL PROJECT COST 2800079 \$ TOTAL CONSTRUCTION COST 1922928 \$
 FINAL YEAR O & M 163450 \$/YR TOTAL STEP III COST 2666748 \$
 INITIAL YEAR O & M 163450 \$/YR PRESENT WORTH (APP. A) 4601093 \$

#362
Y 2000

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00	PERCENT
D STATE GRANT		0.000E+00	PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01	PERCENT
BONDS	PERCENT RATE LIFE		
I REVENUE	100.00 8.00 20		
D GENERAL OBLIGATION	0.00 0.00 30		
D OTHER	0.00 0.00 30		
D NUMBER OF BILLING UNITS		0.434E+06	
D EXISTING SEWER RATE		0.000E+00	\$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01	
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03	GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00	\$/YEAR
TOTAL PROJECT COST		0.280E+07	\$
EPA ELIGIBLE COST		0.275E+07	\$
LOCAL SHARE		0.288E+07	\$
ANNUAL DEBT SERVICE		0.294E+06	\$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.419E+05	\$/YEAR
CONTINGENCY RESERVE		0.419E+05	\$/YEAR
TOTAL ANNUAL OPERATING COST		0.541E+06	\$/YEAR
TREATMENT COST			
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.125E+01	\$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.125E+01	\$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.125E+01	\$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.125E+01	\$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.104E+02	\$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.104E+02	\$/MONTH

Run #363

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 POST 0
 SECONDARY DRYI 0 HAUL 0

Facility No.2

Q = 1.68

COST SUMMARY

Discharge

Y 2010

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	400839	40327	3774	2448	9772	2905	0	18799
PRELIMIN*	144143	14221	4859	2060	1323	3603	0	11845
OXID DIT	524600	57225	9015	0	55463	3811	0	68289
0 SEC CL	429144	42339	5614	2360	618	4291	0	12883
RCY PUMP	194389	20150	3194	2021	7324	1360	0	13899
CHLORINA	119488	12708	4889	582	7669	4854	7250	25244
POST AER	302	29	0	0	0	0	0	0
DRY BEDS	88145	8770	3807	1308	0	793	0	5908
HAUL & LF	71882	15721	67	0	0	12505	0	12572
SUB TOTAL	1972936	211495	35222	10782	82173	34025	7250	169439

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 434046 \$

SUB TOTAL (OTHER DIRECT) 434046 \$ TOTAL CONSTRUCTION COST 2406982 \$

INDIRECT COSTS

MISC NON CONST COSTS 120349 \$

ADMIN/LEGAL 48139 \$

201 PLANNING 0 \$

A/E DESIGN FEE 162559 \$

INSPECTION 48139 \$

CONTINGENCIES 192558 \$

TECHNICAL COSTS 48139 \$

SUB TOTAL (INDIRECT) 619883 \$

LAND COSTS 54000 \$ (12. ACRES)

INTEREST DURING CONSTRUCTION 410140 \$

ADMINISTRATIVE COST 10287 \$/YR

LABORATORY COST 20414 \$/YR

TOTAL PROJECT COST 3491005 \$ TOTAL CONSTRUCTION COST 2406982 \$

FINAL YEAR O & M 200156 \$/YR TOTAL STEP III COST 3328446 \$

INITIAL YEAR O & M 200156 \$/YR PRESENT WORTH (APP. A) 5692025 \$

363
2010

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
D NUMBER OF BILLING UNITS		0.615E+06
D EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.349E+07 \$
EPA ELIGIBLE COST		0.344E+07 \$
LOCAL SHARE		0.359E+07 \$
ANNUAL DEBT SERVICE		0.366E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.523E+05 \$/YEAR
CONTINGENCY RESERVE		0.523E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.671E+06 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.109E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.109E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.109E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.109E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.910E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.910E+01 \$/MONTH

***** Run # 364
 Facility No. 2
 Q = 0.82
 Y 1990

COST SUMMARY

Irrigation

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	284942	28710	3469	2348	4998	1994	0	12809
PRELIMIN*	102382	10101	3807	1760	948	2559	0	9074
OXID DIT	227788	25018	6091	0	26082	2036	0	34209
O SEC CL	270199	26658	3288	1446	529	2701	0	7964
RCY PUMP	154673	16023	2911	1919	3568	1082	0	9480
CHLORINA	99973	10783	3333	431	7669	4301	3526	19260
SLOW INF	2227573	235709	19364	10441	0	6574	0	36379
INT PUMP	159476	16523	3502	2374	3556	1116	0	10548
DRY BEDS	57003	5669	2787	1012	0	513	0	4312
HAUL & LF	70595	15595	31	0	0	12505	0	12536
SUB TOTAL	3654609	390792	48587	21733	47352	35385	3526	156571

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 804014 \$

SUB TOTAL (OTHER DIRECT) 804014 \$ TOTAL CONSTRUCTION COST 4458624 \$

INDIRECT COSTS

MISC NON CONST COSTS 222931 \$
 ADMIN/LEGAL 89172 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 281956 \$
 INSPECTION 89172 \$
 CONTINGENCIES 356689 \$
 TECHNICAL COSTS 89172 \$

SUB TOTAL (INDIRECT) 1129092 \$

LAND COSTS 2451938 \$ (545. ACRES)

INTEREST DURING CONSTRUCTION 1070278 \$

ADMINISTRATIVE COST 7012 \$/YR

LABORATORY COST 18302 \$/YR

TOTAL PROJECT COST 9109932 \$ TOTAL CONSTRUCTION COST 4458624 \$
 FINAL YEAR O & M 181901 \$/YR TOTAL STEP III COST 8827976 \$
 INITIAL YEAR O & M 181901 \$/YR PRESENT WORTH (APP. A) 10032059 \$

#364
Y1990

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
D NUMBER OF BILLING UNITS		0.299E+06
D EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.911E+07 \$
EPA ELIGIBLE COST		0.666E+07 \$
LOCAL SHARE		0.931E+07 \$
ANNUAL DEBT SERVICE		0.948E+06 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.135E+06 \$/YEAR
CONTINGENCY RESERVE		0.135E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.140E+07 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.469E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.469E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.469E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.469E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.391E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.391E+02 \$/MONTH

Run # 365

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRY 0 HAUL 0

Facility No. 2

Q=1.19

COST SUMMARY

Irrigation

Y. 2000

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	299604	30174	3624	2513	7093	2097	0	15327
PRELIMIN*	121473	11984	4320	2000	1127	3036	0	10483
OXID DIT	359903	38029	7463	0	37896	1840	0	47199
O SEC CL	326403	32203	3982	1792	562	3264	0	9600
RCY PUMP	173149	17944	3055	2064	5180	1212	0	11511
CHLORINA	109676	11740	4065	528	7669	4580	5123	21965
SLOW INF	3160391	334457	26645	14625	0	9214	0	50484
INT PUMP	186289	19309	3675	2553	5162	1304	0	12694
DRY BEDS	72978	7260	3247	1200	0	656	0	5103
HAUL & LF	71111	15645	45	0	0	12505	0	12550
SUB TOTAL	4880980	518749	60125	27279	64692	39712	5123	196916

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 1073815 \$

SUB TOTAL (OTHER DIRECT) 1073815 \$ TOTAL CONSTRUCTION COST 5954795 \$

INDIRECT COSTS

MISC NON CONST COSTS 297739 \$
 ADMIN/LEGAL 119095 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 366506 \$
 INSPECTION 119095 \$
 CONTINGENCIES 476383 \$
 TECHNICAL COSTS 119095 \$

SUB TOTAL (INDIRECT) 1497913 \$

LAND COSTS 3487903 \$ (775. ACRES)

INTEREST DURING CONSTRUCTION 1456468 \$

ADMINISTRATIVE COST 8553 \$/YR

LABORATORY COST 19368 \$/YR

TOTAL PROJECT COST 12397079 \$ TOTAL CONSTRUCTION COST 5954795 \$
 FINAL YEAR O & M 224856 \$/YR TOTAL STEP III COST 12030573 \$
 INITIAL YEAR O & M 224856 \$/YR PRESENT WORTH (APP. A) 13324185 \$

#365
2000

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.434E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.124E+08 \$
EPA ELIGIBLE COST				0.891E+07 \$
LOCAL SHARE				0.127E+08 \$
ANNUAL DEBT SERVICE				0.129E+07 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.184E+06 \$/YEAR
CONTINGENCY RESERVE				0.184E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.188E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.434E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.434E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.434E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.434E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.362E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.362E+02 \$/MONTH

Run No. 36k

LIQUID RAW 0 PREL 0 OXID 0 CHLO 0 SLOW 0
 SECONDARY DRYI 0 HAUL 0

Facility # 2

Q = 1.68

COST SUMMARY

Irrigation

Y 2010

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
RAW PUMP	400839	40327	3774	2680	9772	2805	0	19031
PRELIMIN*	144143	14221	4859	2255	1323	3603	0	12040
OXID DIT	509682	55539	9015	0	53628	3662	0	66305
O SEC CL	383701	37856	4908	2255	596	3837	0	11596
RCY PUMP	194389	20150	3194	2212	7324	1360	0	14090
CHLORINA	119488	12708	4889	637	7669	4854	7250	25299
SLOW INF	4409443	466536	35852	20031	0	12614	0	68497
INT PUMP	216235	22418	3853	2743	7299	1513	0	15408
DRY BEDS	89954	8950	3742	1408	0	809	0	5959
HAUL & LF	71785	15712	64	0	0	12505	0	12569
SUB TOTAL	6539663	694421	74155	34225	87615	47566	7250	250794

* WARNING - COST ESTIMATES ARE FROM PARAMETRIC EQUATIONS

DIRECT COSTS

PROFIT/OVERHEAD 1438725 \$

SUB TOTAL (OTHER DIRECT) 1438725 \$

TOTAL CONSTRUCTION COST 7978388 \$

INDIRECT COSTS

MISC NON CONST COSTS 398919 \$

ADMIN/LEGAL 159567 \$

201 PLANNING 0 \$

A/E DESIGN FEE 479114 \$

INSPECTION 159567 \$

CONTINGENCIES 638271 \$

TECHNICAL COSTS 159567 \$

SUB TOTAL (INDIRECT) 1995005 \$

LAND COSTS

4854530 \$ (1079. ACRES)

INTEREST DURING CONSTRUCTION 1973967 \$

ADMINISTRATIVE COST

10287 \$/YR

LABORATORY COST

20414 \$/YR

TOTAL PROJECT COST 16801892 \$ TOTAL CONSTRUCTION COST 7978388 \$

FINAL YEAR O & M 281515 \$/YR TOTAL STEP III COST 16322778 \$

INITIAL YEAR O & M 281515 \$/YR PRESENT WORTH (APP. A) 17751018 \$

#366
2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.615E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.168E+08 \$
EPA ELIGIBLE COST				0.119E+08 \$
LOCAL SHARE				0.172E+08 \$
ANNUAL DEBT SERVICE				0.175E+07 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.250E+06 \$/YEAR
CONTINGENCY RESERVE				0.250E+06 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.253E+07 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.411E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.411E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.411E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.411E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.343E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.343E+02 \$/MONTH

LIFT STATION 1, BASINS 2B,2C,2E,3, YEAR 1990 ANALYZE 1 TRAIN NO 1

Run # 401
 Y 1990
 Facility # 1
 $Q_p = 3.38$

LIQUID SEWE 0

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	277958	30178	3493	1960	25050	1945	0	32448
SUB TOTAL	277958	30178	3493	1960	25050	1945	0	32448

DIRECT COSTS
 PROFIT/OVERHEAD

61150 \$

SUB TOTAL (OTHER DIRECT)

61150 \$

TOTAL CONSTRUCTION COST 339108 \$

INDIRECT COSTS

MISC NON CONST COSTS 16955 \$
 ADMIN/LEGAL 6782 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 30814 \$
 INSPECTION 6782 \$
 CONTINGENCIES 27128 \$
 TECHNICAL COSTS 6782 \$

SUB TOTAL (INDIRECT)

95243 \$

LAND COSTS

49500 \$ (11. ACRES)

INTEREST DURING CONSTRUCTION

10735 \$

ADMINISTRATIVE COST

7839 \$/YR

LABORATORY COST

18893 \$/YR

TOTAL PROJECT COST	494586 \$	TOTAL CONSTRUCTION COST	339108 \$
FINAL YEAR O & M	59183 \$/YR	TOTAL STEP III COST	463772 \$
INITIAL YEAR O & M	59183 \$/YR	PRESENT WORTH (APP. A)	1317192 \$

LIFT STATION 1, BASINS 2B,2C,2E,3, YEAR 1990 ANALYZE 1 TRAIN NO 1

#401
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.369E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.495E+06 \$
EPA ELIGIBLE COST				0.445E+06 \$
LOCAL SHARE				0.508E+06 \$
ANNUAL DEBT SERVICE				0.517E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.739E+04 \$/YEAR
CONTINGENCY RESERVE				0.739E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.126E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.341E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.341E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.341E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.341E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.284E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.284E+01 \$/MONTH

LIFT STATION 1, BASINS 2B,2C,2E,3, YEAR 2000 ANALYZE 1 TRAIN NO 1

Run#402

LIQUID SEWE 0

Y 2000

Facility#1

Q=7.78

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	367597	39910	3974	2287	46479	2573	0	55313
SUB TOTAL	367597	39910	3974	2287	46479	2573	0	55313

DIRECT COSTS

PROFIT/OVERHEAD 80871 \$

SUB TOTAL (OTHER DIRECT) 80871 \$

TOTAL CONSTRUCTION COST 448468 \$

INDIRECT COSTS

MISC NON CONST COSTS 22423 \$
 ADMIN/LEGAL 8969 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 38142 \$
 INSPECTION 8969 \$
 CONTINGENCIES 35877 \$
 TECHNICAL COSTS 8969 \$

SUB TOTAL (INDIRECT) 123349 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 13985 \$ (13. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 12691 \$/YR

TOTAL PROJECT COST	644302 \$	TOTAL CONSTRUCTION COST	448468 \$
FINAL YEAR O & M	89680 \$/YR	TOTAL STEP III COST	606160 \$
INITIAL YEAR O & M	89680 \$/YR	PRESENT WORTH (APP. A)	1874894 \$

#402
2000

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.913E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.644E+06 \$
EPA ELIGIBLE COST				0.586E+06 \$
LOCAL SHARE				0.662E+06 \$
ANNUAL DEBT SERVICE				0.674E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.963E+04 \$/YEAR
CONTINGENCY RESERVE				0.963E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.176E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.193E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.193E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.193E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.193E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.161E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.161E+01 \$/MONTH

LIFT STATION 1, BASINS 2B,2C,2E,3, YEAR 2010 ANALYZE 1 TRAIN NO 1

Run #403

Y 2010

LIQUID SEWE 0

Facility #1

Qp=12.08

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	467806	50790	4605	2670	76498	3274	0	87047
SUB TOTAL	467806	50790	4605	2670	76498	3274	0	87047

DIRECT COSTS

PROFIT/OVERHEAD 102917 \$

SUB TOTAL (OTHER DIRECT) 102917 \$

TOTAL CONSTRUCTION COST 570723 \$

INDIRECT COSTS

MISC NON CONST COSTS 28536 \$
 ADMIN/LEGAL 11414 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 46379 \$
 INSPECTION 11414 \$
 CONTINGENCIES 45657 \$
 TECHNICAL COSTS 11414 \$

SUB TOTAL (INDIRECT) 154814 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 67500 \$ (15. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 23166 \$/YR

TOTAL PROJECT COST	810632 \$	TOTAL CONSTRUCTION COST	570723 \$
FINAL YEAR O & M	126248 \$/YR	TOTAL STEP III COST	764253 \$
INITIAL YEAR O & M	126248 \$/YR	PRESENT WORTH (APP. A)	2505359 \$

LIFT STATION 1, BASINS 2B,2C,2E,3, YEAR 2010 ANALYZE 1 TRAIN NO 1

#403
2010

USER CHARGE SUMMARY

I EPA GRANT	0.000E+00 PERCENT
D STATE GRANT	0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING	0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE
I REVENUE	100.00 8.00 20
D GENERAL OBLIGATION	0.00 0.00 30
D OTHER	0.00 0.00 30
D NUMBER OF BILLING UNITS	0.142E+07
D EXISTING SEWER RATE	0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD	0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)	0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST	0.000E+00 \$/YEAR
TOTAL PROJECT COST	0.811E+06 \$
EPA ELIGIBLE COST	0.743E+06 \$
LOCAL SHARE	0.833E+06 \$
ANNUAL DEBT SERVICE	0.848E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE	0.121E+05 \$/YEAR
CONTINGENCY RESERVE	0.121E+05 \$/YEAR
TOTAL ANNUAL OPERATING COST	0.235E+06 \$/YEAR
TREATMENT COST	
COST PER 1000 GALLONS TREATED (NEW SYSTEM)	0.166E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)	0.166E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)	0.166E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)	0.166E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)	0.139E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)	0.139E+01 \$/MONTH

***** Run# 404

LIQUID SEWE 0

Facility# 7

***** Qp = 0.66

Y 1990

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	172947	18777	2832	1508	3530	1210	0	9080
SUB TOTAL	172947	18777	2832	1508	3530	1210	0	9080

DIRECT COSTS
PROFIT/OVERHEAD

38048 \$

SUB TOTAL (OTHER DIRECT)

38048 \$

TOTAL CONSTRUCTION COST 210995 \$

INDIRECT COSTS

MISC NON CONST COSTS	10549 \$
ADMIN/LEGAL	4219 \$
201 PLANNING	0 \$
A/E DESIGN FEE	21258 \$
INSPECTION	4219 \$
CONTINGENCIES	16879 \$
TECHNICAL COSTS	4219 \$

SUB TOTAL (INDIRECT)

61343 \$

LAND COSTS

40500 \$ (9. ACRES)

INTEREST DURING CONSTRUCTION

6941 \$

ADMINISTRATIVE COST

3087 \$/YR

LABORATORY COST

14486 \$/YR

TOTAL PROJECT COST	319779 \$	TOTAL CONSTRUCTION COST	210995 \$
FINAL YEAR O & M	26655 \$/YR	TOTAL STEP III COST	298521 \$
INITIAL YEAR O & M	26655 \$/YR	PRESENT WORTH (APP. A)	703561 \$

#404
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.639E+05
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.320E+06 \$
EPA ELIGIBLE COST				0.279E+06 \$
LOCAL SHARE				0.328E+06 \$
ANNUAL DEBT SERVICE				0.334E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.477E+04 \$/YEAR
CONTINGENCY RESERVE				0.477E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.696E+05 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.109E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.109E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.109E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.109E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.909E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.909E+01 \$/MONTH

LIFT STATION 7, BASIN 2A, YEAR 2000, DRAFT FI ANALYZE 1 TRAIN NO 1

Run#405

LIQUID SEWE 0

Y2000

Qp=1.32

COST SUMMARY

Facility #7

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	176254	19136	3096	1685	4003	1233	0	10017
SUB TOTAL	176254	19136	3096	1685	4003	1233	0	10017

DIRECT COSTS
PROFIT/OVERHEAD

38776 \$

SUB TOTAL (OTHER DIRECT)

38776 \$

TOTAL CONSTRUCTION COST 215030 \$

INDIRECT COSTS

MISC NON CONST COSTS 10751 \$
 ADMIN/LEGAL 4300 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 21579 \$
 INSPECTION 4300 \$
 CONTINGENCIES 17202 \$
 TECHNICAL COSTS 4300 \$

SUB TOTAL (INDIRECT)

62432 \$

LAND COSTS
INTEREST DURING CONSTRUCTION

40500 \$ (9. ACRES)
7054 \$

ADMINISTRATIVE COST
LABORATORY COST

4803 \$/YR
16432 \$/YR

TOTAL PROJECT COST	325016 \$	TOTAL CONSTRUCTION COST	215030 \$
FINAL YEAR O & M	31255 \$/YR	TOTAL STEP III COST	303437 \$
INITIAL YEAR O & M	31255 \$/YR	PRESENT WORTH (APP. A)	786076 \$

#405

USER CHARGE SUMMARY

2000

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.147E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.325E+06 \$
EPA ELIGIBLE COST				0.285E+06 \$
LOCAL SHARE				0.334E+06 \$
ANNUAL DEBT SERVICE				0.340E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.485E+04 \$/YEAR
CONTINGENCY RESERVE				0.485E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.749E+05 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.511E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.511E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.511E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.511E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.426E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.426E+01 \$/MONTH

Run # 406

LIQUID SEWE 0

Y 2010

Facility #

Qp = 2.09

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	234701	25482	3284	1814	12343	1642	0	19083
SUB TOTAL	234701	25482	3284	1814	12343	1642	0	19083

DIRECT COSTS

PROFIT/OVERHEAD	51634 \$							
SUB TOTAL (OTHER DIRECT)	51634 \$					TOTAL CONSTRUCTION COST	286335 \$	

INDIRECT COSTS

MISC NON CONST COSTS	14316 \$
ADMIN/LEGAL	5726 \$
201 PLANNING	0 \$
A/E DESIGN FEE	27027 \$
INSPECTION	5726 \$
CONTINGENCIES	22906 \$
TECHNICAL COSTS	5726 \$
SUB TOTAL (INDIRECT)	81427 \$

LAND COSTS

INTEREST DURING CONSTRUCTION	45000 \$	(10. ACRES)
	9158 \$	

ADMINISTRATIVE COST

LABORATORY COST	6730 \$/YR
	18089 \$/YR

TOTAL PROJECT COST	421920 \$	TOTAL CONSTRUCTION COST	286335 \$
FINAL YEAR O & M	43905 \$/YR	TOTAL STEP III COST	394893 \$
INITIAL YEAR O & M	43905 \$/YR	PRESENT WORTH (APP. A)	1051684 \$

#406
2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.277E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.422E+06 \$
EPA ELIGIBLE COST				0.377E+06 \$
LOCAL SHARE				0.433E+06 \$
ANNUAL DEBT SERVICE				0.441E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.630E+04 \$/YEAR
CONTINGENCY RESERVE				0.630E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.101E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.364E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.364E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.364E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.364E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.303E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.303E+01 \$/MONTH

LIFT STATION 8, PART OF BASIN 2B, YEAR 1990, ANALYZE 1 TRAIN NO 1

Run # 407

Y 1990

LIQUID SEWE 0

Facility # 8

$Q_p = 0.10$

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	40696	4418	2937	1575	2495	244	0	725
SUB TOTAL	40696	4418	2937	1575	2495	244	0	725

DIRECT COSTS

PROFIT/OVERHEAD 8953 \$

SUB TOTAL (OTHER DIRECT) 8953 \$ TOTAL CONSTRUCTION COST 49649 \$

INDIRECT COSTS

MISC NON CONST COSTS 2482 \$
 ADMIN/LEGAL 992 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 5774 \$
 INSPECTION 992 \$
 CONTINGENCIES 3971 \$
 TECHNICAL COSTS 992 \$

SUB TOTAL (INDIRECT) 15203 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 40500 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 3314 \$/YR 14783 \$/YR

TOTAL PROJECT COST	107689 \$	TOTAL CONSTRUCTION COST	49649 \$
FINAL YEAR O & M	25350 \$/YR	TOTAL STEP III COST	101915 \$
INITIAL YEAR O & M	25350 \$/YR	PRESENT WORTH (APP. A)	496497 \$

#407
1990

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00	PERCENT
D STATE GRANT		0.000E+00	PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01	PERCENT
BONDS	PERCENT RATE LIFE		
I REVENUE	100.00 8.00 20		
D GENERAL OBLIGATION	0.00 0.00 30		
D OTHER	0.00 0.00 30		
D NUMBER OF BILLING UNITS		0.730E+05	
D EXISTING SEWER RATE		0.000E+00	\$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01	
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03	GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00	\$/YEAR
TOTAL PROJECT COST		0.108E+06	\$
EPA ELIGIBLE COST		0.672E+05	\$
LOCAL SHARE		0.110E+06	\$
ANNUAL DEBT SERVICE		0.112E+05	\$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.160E+04	\$/YEAR
CONTINGENCY RESERVE		0.160E+04	\$/YEAR
TOTAL ANNUAL OPERATING COST		0.397E+05	\$/YEAR
TREATMENT COST			
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.544E+00	\$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.544E+00	\$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.544E+00	\$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.544E+00	\$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.454E+01	\$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.454E+01	\$/MONTH

LIFT STATION 8, PART OF BASIN 2B, YEAR 2000, ANALYZE 1 TRAIN NO 1

Run #408
4 2000

LIQUID SEWE 0

Facility # 8

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	43559	4729	2999	1618	3640	261	0	8518
SUB TOTAL	43559	4729	2999	1618	3640	261	0	8518

Q = 0.12

DIRECT COSTS

PROFIT/OVERHEAD 9583 \$

SUB TOTAL (OTHER DIRECT) 9583 \$ TOTAL CONSTRUCTION COST 53142 \$

INDIRECT COSTS

MISC NON CONST COSTS 2657 \$
 ADMIN/LEGAL 1062 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 6180 \$
 INSPECTION 1062 \$
 CONTINGENCIES 4251 \$
 TECHNICAL COSTS 1062 \$

SUB TOTAL (INDIRECT) 16274 \$

LAND COSTS 40500 \$ (9. ACRES)
 INTEREST DURING CONSTRUCTION 2438 \$

ADMINISTRATIVE COST 4462 \$/YR
 LABORATORY COST 16091 \$/YR

TOTAL PROJECT COST 112354 \$ TOTAL CONSTRUCTION COST 53142 \$
 FINAL YEAR O & M 29073 \$/YR TOTAL STEP III COST 106174 \$
 INITIAL YEAR O & M 29073 \$/YR PRESENT WORTH (APP. A) 561304 \$

#408
2000

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
D NUMBER OF BILLING UNITS		0.128E+06
D EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.112E+06 \$
EPA ELIGIBLE COST		0.719E+05 \$
LOCAL SHARE		0.115E+06 \$
ANNUAL DEBT SERVICE		0.117E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.167E+04 \$/YEAR
CONTINGENCY RESERVE		0.167E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.441E+05 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.345E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.345E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.345E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.345E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.288E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.288E+01 \$/MONTH

LIFT STATION 8, PART OF BASIN 2B, YEAR 2010, ANALYZE 1 TRAIN NO 1

Run# 409

LIQUID SEWE 0

Y2010

Facility #8

Q_p = 0.14

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	45712	4963	3051	1656	5405	274	0	10386
SUB TOTAL	45712	4963	3051	1656	5405	274	0	10386

DIRECT COSTS

PROFIT/OVERHEAD 10056 \$

SUB TOTAL (OTHER DIRECT) 10056 \$

TOTAL CONSTRUCTION COST 55768 \$

INDIRECT COSTS

MISC NON CONST COSTS 2788 \$
 ADMIN/LEGAL 1115 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 6485 \$
 INSPECTION 1115 \$
 CONTINGENCIES 4461 \$
 TECHNICAL COSTS 1115 \$

SUB TOTAL (INDIRECT) 17079 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 40500 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 4917 \$/YR

TOTAL PROJECT COST	115861 \$	TOTAL CONSTRUCTION COST	55768 \$
FINAL YEAR O & M	31846 \$/YR	TOTAL STEP III COST	109376 \$
INITIAL YEAR O & M	31846 \$/YR	PRESENT WORTH (APP. A)	603893 \$

LIFT STATION 8, PART OF BASIN 2B, YEAR 2010, ANALYZE 1 TRAIN NO 1

#409
2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.153E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.116E+06 \$
EPA ELIGIBLE COST				0.754E+05 \$
LOCAL SHARE				0.118E+06 \$
ANNUAL DEBT SERVICE				0.120E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.172E+04 \$/YEAR
CONTINGENCY RESERVE				0.172E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.473E+05 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.309E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.309E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.309E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.309E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.257E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.257E+01 \$/MONTH

LIFT STATION 10, BASIN 2E, YEAR 1990, DRAFT F ANALYZE 1 TRAIN NO 1

***** Run #410

LIQUID SEWE 0

Y 1990

***** Facility #10

Q=0.99
P

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	187370	20343	2983	1609	27863	1311	0	33766
SUB TOTAL	187370	20343	2983	1609	27863	1311	0	33766

DIRECT COSTS

PROFIT/OVERHEAD	41221 \$							
SUB TOTAL (OTHER DIRECT)	41221 \$				TOTAL CONSTRUCTION COST		228591 \$	

INDIRECT COSTS

MISC NON CONST COSTS	11429 \$
ADMIN/LEGAL	4571 \$
201 PLANNING	0 \$
A/E DESIGN FEE	22649 \$
INSPECTION	4571 \$
CONTINGENCIES	18287 \$
TECHNICAL COSTS	4571 \$
SUB TOTAL (INDIRECT)	66078 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 40500 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 3261 \$/YR

TOTAL PROJECT COST	342605 \$	TOTAL CONSTRUCTION COST	228591 \$
FINAL YEAR O & M	51745 \$/YR	TOTAL STEP III COST	319956 \$
INITIAL YEAR O & M	51745 \$/YR	PRESENT WORTH (APP. A)	1036017 \$

#410
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.708E+05
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.343E+06 \$
EPA ELIGIBLE COST				0.302E+06 \$
LOCAL SHARE				0.352E+06 \$
ANNUAL DEBT SERVICE				0.358E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.512E+04 \$/YEAR
CONTINGENCY RESERVE				0.512E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.978E+05 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.138E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.138E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.138E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.138E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.115E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.115E+02 \$/MONTH

LIFT STATION 10, BASIN 2E, YEAR 2000, DRAFT F ANALYZE 1 TRAIN NO 1

Run #411

LIQUID SEWE 0

Y2000

Facility #10

Q_P = 3.34

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	294851	32012	3488	1956	72961	2063	0	80468
SUB TOTAL	294851	32012	3488	1956	72961	2063	0	80468

DIRECT COSTS

PROFIT/OVERHEAD	64867 \$							
SUB TOTAL (OTHER DIRECT)	64867 \$							TOTAL CONSTRUCTION COST 359718 \$

INDIRECT COSTS

MISC NON CONST COSTS	17985 \$
ADMIN/LEGAL	7194 \$
201 PLANNING	0 \$
A/E DESIGN FEE	32245 \$
INSPECTION	7194 \$
CONTINGENCIES	28777 \$
TECHNICAL COSTS	7194 \$
SUB TOTAL (INDIRECT)	100589 \$

LAND COSTS

45000 \$ (10. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 6994 \$/YR

TOTAL PROJECT COST	516518 \$	TOTAL CONSTRUCTION COST	359718 \$
FINAL YEAR O & M	105754 \$/YR	TOTAL STEP III COST	484273 \$
INITIAL YEAR O & M	105754 \$/YR	PRESENT WORTH (APP. A)	1904848 \$

#411
2000

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
D NUMBER OF BILLING UNITS		0.297E+06
D EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.517E+06 \$
EPA ELIGIBLE COST		0.472E+06 \$
LOCAL SHARE		0.531E+06 \$
ANNUAL DEBT SERVICE		0.540E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.772E+04 \$/YEAR
CONTINGENCY RESERVE		0.772E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.175E+06 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.589E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.589E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.589E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.589E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.491E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.491E+01 \$/MONTH

Run # 412

LIQUID SEWE 0

Y 2010

Facility # 10

Qp = 4.85

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	322291	34991	3659	2077	116816	2256	0	124808
SUB TOTAL	322291	34991	3659	2077	116816	2256	0	124808

DIRECT COSTS

PROFIT/OVERHEAD 70904 \$

SUB TOTAL (OTHER DIRECT) 70904 \$

TOTAL CONSTRUCTION COST 393195 \$

INDIRECT COSTS

MISC NON CONST COSTS 19659 \$
 ADMIN/LEGAL 7863 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 34518 \$
 INSPECTION 7863 \$
 CONTINGENCIES 31455 \$
 TECHNICAL COSTS 7863 \$

SUB TOTAL (INDIRECT) 109221 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 49500 \$ (11. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 8430 \$/YR

TOTAL PROJECT COST	564161 \$	TOTAL CONSTRUCTION COST	393195 \$
FINAL YEAR O & M	152529 \$/YR	TOTAL STEP III COST	529643 \$
INITIAL YEAR O & M	152529 \$/YR	PRESENT WORTH (APP. A)	2539284 \$

#412
2010

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.423E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.564E+06 \$
EPA ELIGIBLE COST				0.515E+06 \$
LOCAL SHARE				0.580E+06 \$
ANNUAL DEBT SERVICE				0.590E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.843E+04 \$/YEAR
CONTINGENCY RESERVE				0.843E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.228E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.540E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.540E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.540E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.540E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.451E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.451E+01 \$/MONTH

LIFT STATION 11, BASIN 2E WEST, YEAR 1990, DR ANALYZE 1 TRAIN NO 1

Run # 413

LIQUID SEWE 0

Y 1990

Facility # 11

$Q_p = 0.80$

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	183903	19966	2903	1555	20988	1287	0	26733
SUB TOTAL	183903	19966	2903	1555	20988	1287	0	26733

DIRECT COSTS

PROFIT/OVERHEAD 40458 \$

SUB TOTAL (OTHER DIRECT) 40458 \$

TOTAL CONSTRUCTION COST 224361 \$

INDIRECT COSTS

MISC NON CONST COSTS 11218 \$
 ADMIN/LEGAL 4487 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 22317 \$
 INSPECTION 4487 \$
 CONTINGENCIES 17948 \$
 TECHNICAL COSTS 4487 \$

SUB TOTAL (INDIRECT) 64944 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 40500 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 2933 \$/YR

TOTAL PROJECT COST 337122 \$ TOTAL CONSTRUCTION COST 224361 \$

FINAL YEAR O & M 43946 \$/YR TOTAL STEP III COST 314805 \$

INITIAL YEAR O & M 43946 \$/YR PRESENT WORTH (APP. A) 930447 \$

#413

USER CHARGE SUMMARY

1990

Facility #11

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING BONDS				0.300E+01 PERCENT
	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.580E+05
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.337E+06 \$
EPA ELIGIBLE COST				0.297E+06 \$
LOCAL SHARE				0.346E+06 \$
ANNUAL DEBT SERVICE				0.352E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.503E+04 \$/YEAR
CONTINGENCY RESERVE				0.503E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.893E+05 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.154E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.154E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.154E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.154E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.128E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.128E+02 \$/MONTH

LIFT STATION 11, BASIN 2E WEST, YEAR 2000, DR ANALYZE 1 TRAIN NO 1

Run #414

LIQUID SEWE 0

42000

Facility #11

Qp = 0.98

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	191882	20833	2979	1607	31188	1343	0	37117
SUB TOTAL	191882	20833	2979	1607	31188	1343	0	37117

DIRECT COSTS

PROFIT/OVERHEAD 42214 \$

SUB TOTAL (OTHER DIRECT) 42214 \$ TOTAL CONSTRUCTION COST 234096 \$

INDIRECT COSTS

MISC NON CONST COSTS 11704 \$
 ADMIN/LEGAL 4681 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 23078 \$
 INSPECTION 4681 \$
 CONTINGENCIES 18727 \$
 TECHNICAL COSTS 4681 \$

SUB TOTAL (INDIRECT) 67552 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 40500 \$ (9. ACRES)
 7591 \$

ADMINISTRATIVE COST

LABORATORY COST 3503 \$/YR
 15018 \$/YR

TOTAL PROJECT COST	349739 \$	TOTAL CONSTRUCTION COST	234096 \$
FINAL YEAR O & M	55640 \$/YR	TOTAL STEP III COST	326661 \$
INITIAL YEAR O & M	55640 \$/YR	PRESENT WORTH (APP. A)	1094022 \$

USER CHARGE SUMMARY

#414
2000

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.810E+05
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.350E+06 \$
EPA ELIGIBLE COST				0.309E+06 \$
LOCAL SHARE				0.359E+06 \$
ANNUAL DEBT SERVICE				0.366E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.522E+04 \$/YEAR
CONTINGENCY RESERVE				0.522E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.103E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.127E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.127E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.127E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.127E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.106E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.106E+02 \$/MONTH

LIFT STATION 11, BASIN 2E WEST, YEAR 2010, DR ANALYZE 1 TRAIN NO 1

Run # 415
42010

LIQUID SEWE 0

Facility #11
Qp = 208

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	251142	27267	3282	1813	50416	1757	0	57268
SUB TOTAL	251142	27267	3282	1813	50416	1757	0	57268

DIRECT COSTS

PROFIT/OVERHEAD	55251 \$							
SUB TOTAL (OTHER DIRECT)	55251 \$					TOTAL CONSTRUCTION COST	306393 \$	

INDIRECT COSTS

MISC NON CONST COSTS	15319 \$
ADMIN/LEGAL	6127 \$
201 PLANNING	0 \$
A/E DESIGN FEE	28489 \$
INSPECTION	6127 \$
CONTINGENCIES	24511 \$
TECHNICAL COSTS	6127 \$
SUB TOTAL (INDIRECT)	86700 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 40500 \$ (9. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 5136 \$/YR
16749 \$/YR

TOTAL PROJECT COST	443213 \$	TOTAL CONSTRUCTION COST	306393 \$
FINAL YEAR O & M	79156 \$/YR	TOTAL STEP III COST	414724 \$
INITIAL YEAR O & M	79156 \$/YR	PRESENT WORTH (APP. A)	1489852 \$

#415
2010

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
D NUMBER OF BILLING UNITS		0.166E+06
D EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.443E+06 \$
EPA ELIGIBLE COST		0.403E+06 \$
LOCAL SHARE		0.455E+06 \$
ANNUAL DEBT SERVICE		0.464E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.662E+04 \$/YEAR
CONTINGENCY RESERVE		0.662E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.139E+06 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.834E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.834E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.834E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.834E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.695E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.695E+01 \$/MONTH

 ***** Run # 416

LIQUID SEWE 0

Y 1990

 ***** Facility # 14

Qp = 0.25

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT CUST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	56347	6117	3259	1807	3929	338	0	9333
SUB TOTAL	56347	6117	3259	1807	3929	338	0	9333

DIRECT COSTS

PROFIT/OVERHEAD 12396 \$

SUB TOTAL (OTHER DIRECT) 12396 \$

TOTAL CONSTRUCTION COST 68743 \$

INDIRECT COSTS

MISC NON CONST COSTS 3437 \$
 ADMIN/LEGAL 1374 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 7994 \$
 INSPECTION 1374 \$
 CONTINGENCIES 5499 \$
 TECHNICAL COSTS 1374 \$

SUB TOTAL (INDIRECT) 21052 \$

LAND COSTS

40500 \$ (9. ACRES)

INTEREST DURING CONSTRUCTION 2890 \$

ADMINISTRATIVE COST

1716 \$/YR

LABORATORY COST 12255 \$/YR

TOTAL PROJECT COST	133185 \$	TOTAL CONSTRUCTION COST	68743 \$
FINAL YEAR O & M	23306 \$/YR	TOTAL STEP III COST	125191 \$
INITIAL YEAR O & M	23306 \$/YR	PRESENT WORTH (APP. A)	467456 \$

416
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.212E+05
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.133E+06 \$
EPA ELIGIBLE COST				0.927E+05 \$
LOCAL SHARE				0.136E+06 \$
ANNUAL DEBT SERVICE				0.138E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.198E+04 \$/YEAR
CONTINGENCY RESERVE				0.198E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.411E+05 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.194E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.194E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.194E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.194E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.162E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.162E+02 \$/MONTH

Run #417

LIQUID SEWE 0

Y2000

Facility #11

COST SUMMARY

Qp=0.28

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	59091	6415	3301	1838	4748	354	0	10241
SUB TOTAL	59091	6415	3301	1838	4748	354	0	10241
DIRECT COSTS								
PROFIT/OVERHEAD			13000 \$					
SUB TOTAL (OTHER DIRECT)			13000 \$		TOTAL CONSTRUCTION COST		72091 \$	
INDIRECT COSTS								
MISC NON CONST COSTS			3604 \$					
ADMIN/LEGAL			1441 \$					
201 PLANNING			0 \$					
A/E DESIGN FEE			8384 \$					
INSPECTION			1441 \$					
CONTINGENCIES			5767 \$					
TECHNICAL COSTS			1441 \$					
SUB TOTAL (INDIRECT)			22078 \$					
LAND COSTS			40500 \$		(9. ACRES)			
INTEREST DURING CONSTRUCTION			2987 \$					
ADMINISTRATIVE COST			1778 \$/YR					
LABORATORY COST			12379 \$/YR					
TOTAL PROJECT COST		137656 \$	TOTAL CONSTRUCTION COST		72091 \$			
FINAL YEAR O & M		24401 \$/YR	TOTAL STEP III COST		129272 \$			
INITIAL YEAR O & M		24401 \$/YR	PRESENT WORTH (APP. A)		485906 \$			

417
2000

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.226E+05
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.138E+06 \$
EPA ELIGIBLE COST				0.972E+05 \$
LOCAL SHARE				0.141E+06 \$
ANNUAL DEBT SERVICE				0.143E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.205E+04 \$/YEAR
CONTINGENCY RESERVE				0.205E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.428E+05 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.189E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.189E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.189E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.189E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.158E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.158E+02 \$/MONTH

Run #418
 Y2010
 Facility #14
 Qp = 0.37

LIQUID SEWE 0

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	65528	7114	3407	1917	9387	393	0	15104
SUB TOTAL	65528	7114	3407	1917	9387	393	0	15104
DIRECT COSTS								
PROFIT/OVERHEAD			14416 \$					
SUB TOTAL (OTHER DIRECT)			14416 \$		TOTAL CONSTRUCTION COST		79944 \$	
INDIRECT COSTS								
MISC NON CONST COSTS			3997 \$					
ADMIN/LEGAL			1598 \$					
201 PLANNING			0 \$					
A/E DESIGN FEE			9297 \$					
INSPECTION			1598 \$					
CONTINGENCIES			6395 \$					
TECHNICAL COSTS			1598 \$					
SUB TOTAL (INDIRECT)			24483 \$					
LAND COSTS			40500 \$		(9. ACRES)			
INTEREST DURING CONSTRUCTION			3215 \$					
ADMINISTRATIVE COST			2009 \$/YR					
LABORATORY COST			12817 \$/YR					
TOTAL PROJECT COST			148142 \$		TOTAL CONSTRUCTION COST		79944 \$	
FINAL YEAR O & M			29932 \$/YR		TOTAL STEP III COST		138845 \$	
INITIAL YEAR O & M			29932 \$/YR		PRESENT WORTH (APP. A)		567116 \$	

#418
2010

USER CHARGE SUMMARY

I EPA GRANT		0.000E+00 PERCENT
D STATE GRANT		0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING		0.300E+01 PERCENT
BONDS	PERCENT RATE LIFE	
I REVENUE	100.00 8.00 20	
D GENERAL OBLIGATION	0.00 0.00 30	
D OTHER	0.00 0.00 30	
D NUMBER OF BILLING UNITS		0.285E+05
D EXISTING SEWER RATE		0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD		0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)		0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST		0.000E+00 \$/YEAR
TOTAL PROJECT COST		0.148E+06 \$
EPA ELIGIBLE COST		0.108E+06 \$
LOCAL SHARE		0.151E+06 \$
ANNUAL DEBT SERVICE		0.154E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE		0.220E+04 \$/YEAR
CONTINGENCY RESERVE		0.220E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST		0.498E+05 \$/YEAR
TREATMENT COST		
COST PER 1000 GALLONS TREATED (NEW SYSTEM)		0.175E+01 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)		0.175E+01 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)		0.175E+01 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)		0.175E+01 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)		0.146E+02 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)		0.146E+02 \$/MONTH

LIFT STATION 15, BASINS 2E,3C,3B, YEAR 1990, ANALYZE 1 TRAIN NO 1

Run #419

Y1990

LIQUID SEWE 0

Facility #15

Q = 2.25

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	247213	26840	3315	1836	37954	1730	0	44835
SUB TOTAL	247213	26840	3315	1836	37954	1730	0	44835

DIRECT COSTS

PROFIT/OVERHEAD	54386 \$							
SUB TOTAL (OTHER DIRECT)	54386 \$				TOTAL CONSTRUCTION COST		301599 \$	

INDIRECT COSTS

MISC NON CONST COSTS	15079 \$
ADMIN/LEGAL	6031 \$
201 PLANNING	0 \$
A/E DESIGN FEE	28142 \$
INSPECTION	6031 \$
CONTINGENCIES	24127 \$
TECHNICAL COSTS	6031 \$
SUB TOTAL (INDIRECT)	85441 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 9585 \$ (10. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 6099 \$/YR 17589 \$/YR

TOTAL PROJECT COST	441625 \$	TOTAL CONSTRUCTION COST	301599 \$
FINAL YEAR O & M	68527 \$/YR	TOTAL STEP III COST	413483 \$
INITIAL YEAR O & M	68527 \$/YR	PRESENT WORTH (APP. A)	1366819 \$

LIFT STATION 15, BASINS 2E,3C,3B, YEAR 1990, ANALYZE 1 TRAIN NO 1

#419
1990

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.230E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.442E+06 \$
EPA ELIGIBLE COST				0.397E+06 \$
LOCAL SHARE				0.454E+06 \$
ANNUAL DEBT SERVICE				0.462E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.660E+04 \$/YEAR
CONTINGENCY RESERVE				0.660E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.128E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.556E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.556E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.556E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.556E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.464E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.464E+01 \$/MONTH

LIFT STATION 15, BASINS 2E,3C,3B, YEAR 2000, ANALYZE 1 TRAIN NO 1

Run #420

LIQUID SEWE 0

Y 2000

Facility #15

Qp = 5.95

COST SUMMARY

UNIT	CAPITAL COST \$	AMMORT COST \$/YR	OPER LABOR COST \$/YR	MAINT LABOR COST \$/YR	POWER COST \$/YR	MATERIAL COST \$/YR	CHEMICAL COST \$/YR	TOTAL O & M COST \$/YR
SEWERS	334676	36336	3757	2146	60584	2342	0	68829
SUB TOTAL	334676	36336	3757	2146	60584	2342	0	68829

DIRECT COSTS

PROFIT/OVERHEAD 73628 \$

SUB TOTAL (OTHER DIRECT) 73628 \$

TOTAL CONSTRUCTION COST 408304 \$

INDIRECT COSTS

MISC NON CONST COSTS 20415 \$
 ADMIN/LEGAL 8166 \$
 201 PLANNING 0 \$
 A/E DESIGN FEE 35523 \$
 INSPECTION 8166 \$
 CONTINGENCIES 32664 \$
 TECHNICAL COSTS 8166 \$

SUB TOTAL (INDIRECT) 113100 \$

LAND COSTS

INTEREST DURING CONSTRUCTION 54000 \$ (12. ACRES)

ADMINISTRATIVE COST

LABORATORY COST 10595 \$/YR

TOTAL PROJECT COST

588170 \$ TOTAL CONSTRUCTION COST 408304 \$
 FINAL YEAR O & M 100012 \$/YR TOTAL STEP III COST 552647 \$
 INITIAL YEAR O & M 100012 \$/YR PRESENT WORTH (APP. A) 1932922 \$

#420
2000

USER CHARGE SUMMARY

I EPA GRANT				0.000E+00 PERCENT
D STATE GRANT				0.000E+00 PERCENT
D ALLOWANCE FOR FINANCING				0.300E+01 PERCENT
BONDS	PERCENT	RATE	LIFE	
I REVENUE	100.00	8.00	20	
D GENERAL OBLIGATION	0.00	0.00	30	
D OTHER	0.00	0.00	30	
D NUMBER OF BILLING UNITS				0.650E+06
D EXISTING SEWER RATE				0.000E+00 \$/TGAL
I PERSONS PER HOUSEHOLD				0.278E+01
D GALLONS/CAPITA/DAY (WATER USE)				0.100E+03 GPCPD
D CURRENT ANNUAL O & M COST				0.000E+00 \$/YEAR
TOTAL PROJECT COST				0.588E+06 \$
EPA ELIGIBLE COST				0.534E+06 \$
LOCAL SHARE				0.604E+06 \$
ANNUAL DEBT SERVICE				0.615E+05 \$/YEAR
PRINCIPAL AND INTEREST RESERVE				0.879E+04 \$/YEAR
CONTINGENCY RESERVE				0.879E+04 \$/YEAR
TOTAL ANNUAL OPERATING COST				0.179E+06 \$/YEAR
TREATMENT COST				
COST PER 1000 GALLONS TREATED (NEW SYSTEM)				0.276E+00 \$/TGAL
COST PER 1000 GALLONS TREATED (TOTAL SYSTEM)				0.276E+00 \$/TGAL
COST PER BILLING UNIT (NEW SYSTEM)				0.276E+00 \$/TGAL
COST PER BILLING UNIT (TOTAL SYSTEM)				0.276E+00 \$/TGAL
COST PER HOUSEHOLD (NEW SYSTEM)				0.230E+01 \$/MONTH
COST PER HOUSEHOLD (TOTAL SYSTEM)				0.230E+01 \$/MONTH
