

## Voting District 4 - Cont.

4	4002	HMW SPECIAL UTILITY DISTRICT	P	4,196,000	4,765,500	4,782,000
4	4315	HMW SPECIAL UTILITY DISTRICT	P	4,196,000	4,765,500	4,782,000
4	2943	KLEIN P.U.D.	P	171,288,000	102,810,500	117,414,100
4	6802	KLEIN P.U.D.	P		102,810,500	117,414,100
4	1860	LOUETTA ROAD U.D.	P	87,065,000	101,322,000	31,933,000
4	3635	NW HARRIS CO. M.U.D. 20	P	89,799,000	121,609,000	115,034,000
4	3999	NW HARRIS CO. M.U.D. 32	P	6,707,000	10,160,000	28,216,000
4	3796	OAKWOOD VILLAGE	P	6,227,000	6,960,000	6,480,000
4	7171	PINELAKES LIMITED PARTNERSHIP	O		90,112,000	19,637,000
4	1663	PONDEROSA FOREST U.D.	P	130,962,000	133,267,000	136,487,333
4	2947	PONDEROSA FOREST U.D.	P	130,962,000	133,267,000	136,487,333
4	3631	PONDEROSA FOREST U.D. - Outside RWA				
4	2170	SHASLA P.U.D.	P	65,992,000	80,194,000	61,765,000
4	4241	SPRING CREEK FOREST P.U.D.	P	56,402,000	77,646,500	81,250,500
4	3556	SPRING WEST M.U.D.	P	1,682,000	11,274,000	13,384,000
4	4058	TERRANOVA WEST M.U.D.	P	107,425,000	135,664,000	169,314,000
4	4115	WESTADOR M.U.D.	P	108,240,000	121,132,000	126,361,667
4	1905	WESTADOR M.U.D.	P	108,240,000	121,132,000	126,361,667
4	1904	WESTADOR M.U.D.	P	108,240,000	121,132,000	126,361,667
		<b>TOTAL VOTING DISTRICT NO. 4</b>		<b>3,179,800,000</b>	<b>3,865,863,000</b>	<b>3,989,535,759</b>
* P = Public; I = Industrial; O = Other						



# Voting District 5

VD NO	WELL	OWNER	USE*	1997	1998	1999
5	6606	ATASCOCITA MANAGEMENT CORP.	P		37,011,200	38,802,700
5	3263	BAYER WATER SYSTEM	P	12,359,800	13,366,950	13,596,850
5	3264	BAYER WATER SYSTEM	P	12,359,800	13,366,950	13,596,850
	8092	CHAMPIONS GLEN, L.P.				
5	5434	CORNELIUS, INC.	O	12,404,012	13,650,408	14,518,320
5	4104	CORNELIUS, INC.	O	12,404,012	13,650,408	14,518,320
5	4105	CORNELIUS, INC.	O	12,404,012	13,650,408	14,518,320
5	4660	CORNELIUS, INC.	O	12,404,012	13,650,408	14,518,320
5	4138	CORNELIUS, INC.	I	1,911,500	13,650,408	14,518,320
5	2741	CORNELIUS, INC.	O	12,404,012	13,650,408	14,518,320
5	4165	CORNELIUS, INC.	O	12,404,012	13,650,408	14,518,320
5	5907	CYPRESSWOOD LTD.				
5	4172	CYPRESSWOOD LTD.	O	61,782,700	106,257,300	102,530,400
5	1611	HARRIS CO. M.U.D. 132 - Opted Out 10/10/00	P	131,976,500	210,274,000	174,907,000
5	4788	HARRIS CO. M.U.D. 132 - Opted Out 10/10/00	P	131,976,500	210,274,000	174,907,000
5	1612	HARRIS CO. M.U.D. 132 - Opted Out 10/10/00	P			
5	3415	HARRIS CO. M.U.D. 151 - Opted Out 11/14/00	P	146,856,000	118,728,000	242,030,000
5	3864	HARRIS CO. M.U.D. 26	P	98,313,850	107,132,000	103,350,500
5	1515	HARRIS CO. M.U.D. 26	P	98,313,850	107,132,000	103,350,500
5	1852	HARRIS CO. M.U.D. 43	P	127,411,000	159,859,000	147,569,000
5	1794	HARRIS CO. M.U.D. 82	P	88,385,000	99,577,500	100,199,000
5	1793	HARRIS CO. M.U.D. 82	P	88,385,000	99,577,500	100,199,000
5	1615	HARRIS CO. W.C.&I.D. 136	P	121,937,000	111,122,000	108,394,000
5	3966	HARRIS CO. W.C.&I.D. 92	P	75,327,000	83,852,667	89,264,333
5	2476	HARRIS CO. W.C.&I.D. 92	P	75,327,000	83,852,667	89,264,333
5	2477	HARRIS CO. W.C.&I.D. 92	P	75,327,000	83,852,667	89,264,333
5	3111	HARRIS CO. W.C.&I.D. 99	P	40,002,500	53,673,500	54,723,500
5	1829	HARRIS CO. W.C.&I.D. 99	P	40,002,500	53,673,500	54,723,500
5	1857	HUNTERS GLEN M.U.D.	P	101,717,000	120,738,000	113,522,000
5	1600	INVERNESS FOREST I.D.	P	31,491,000	44,149,667	36,734,333
5	1601	INVERNESS FOREST I.D.	P	31,491,000	44,149,667	36,734,333
5	3962	INVERNESS FOREST I.D.	P	31,491,000	44,149,667	36,734,333
5	1545	MEMORIAL HILLS U.D.	P	46,420,500	63,383,500	55,829,000
5	4286	MEMORIAL HILLS U.D.	P	46,420,500	63,383,500	55,829,000



## Voting District 5 - Cont.

	5143	MICHAEL G. ROBOSON - Outside RWA				
	5142	MICHAEL G. ROBOSON - Outside RWA				
5	2682	NORTH PARK P.U.D.	P	93,699,000	98,901,500	99,656,500
5	4003	NORTHGATE CROSSING M.U.D. 2	P	9,743,000	19,543,000	15,340,500
5	2202	PILCHERS OXFORD GROUP	P	13,026,000	11,977,000	11,715,000
5	1930	POST WOOD M.U.D.	P	110,364,000	116,818,000	88,155,000
5	3791	SIX FLAGS SPLASHTOWN L.P.	P	58,026,000	57,639,000	46,960,000
5	2034	SUNBELT ASPHALT & MATERIALS INC.	I			1,666,600
5	7223	SUNBELT ASPHALT & MATERIALS, INC	I			1,666,600
5	1631	TATTOR ROAD M.U.D.	P	185,995,000	202,654,000	202,468,000
5	1536	TIMBERLANE U.D.	P	126,588,333	141,549,667	143,734,333
5	3156	TIMBERLANE U.D.	P	126,588,333	141,549,667	143,734,333
5	4155	TIMBERLANE U.D.	P	126,588,333	141,549,667	143,734,333
		TOTAL VOTING DISTRICT NO. 5		<b>2,642,027,569</b>	<b>3,160,271,755</b>	<b>3,136,515,238</b>
* P = Public; I = Industrial; O = Other						



**Table 2**

Well Summary Sheet

**Summary Sheet**  
North Harris County Regional Water Authority

Voting District	Number of MUDs (1)	Total No. of Wells	No. of Public Wells (2)	No. of Other Wells (3)	Total No. of Wells from 5MG/Y to 10MG/Y (4)	No. of Public Wells from 5MG/Y to 10MG/Y (4)	No. of Other Wells from 5MG/Y to 10MG/Y (4)	No. of Total Wells Greater than 10MG/Y (4,5)	No. of Public Wells Greater than 10MG/Y (4,5)	No. of Other Wells than 10MG/Y (4,5)	Greater
1	47	407	328	79	23	21	2	61	55	6	
2	33	406	294	112	14	12	2	59	51	8	
3	27	248	180	68	8	3	5	38	33	5	
4	34	324	258	66	5	5	0	57	55	2	
5	23	185	143	42	3	3	0	38	30	8	
<b>Total</b>	<b>164</b>	<b>1570</b>	<b>1203</b>	<b>367</b>	<b>53</b>	<b>44</b>	<b>9</b>	<b>253</b>	<b>224</b>	<b>29</b>	

Voting District	Population (Based on Census Tracts) (1)	Area (square Mile)	Annual Pumpage (MG/Y) (2)	Avg. Daily Volume (MG/D) (3)	No. of Exempt Wells Agriculture from 5MG/Y to 10MG/Y (4)	No. of Exempt Wells Electrical from 5MG/Y to 10MG/Y (4)	Total No. of Exempt Wells from 5MG/Y to 10MG/Y (4,5)	No. of Exempt Wells Agriculture Greater than 10MG/Y (4,5)	No. of Exempt Wells Electrical Greater than 10MG/Y (4,5)	Total No. of Exempt Wells than 10MG/Y (4,5)	Greater
1	71,228	127.3	5727	15.7	1	0	1	5	0	5	
2	64,181	96.0	6093	16.7	0	0	0	0	0	0	
3	65,966	27.8	4250	11.6	0	0	0	0	0	0	
4	86,102	43.6	4538	12.4	0	0	0	0	0	0	
5	58,075	35.4	2648	7.3	0	0	0	0	0	0	
<b>Total</b>	<b>345,585</b>	<b>330.0</b>	<b>23255</b>	<b>63.7</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>5</b>	

Cal. Av. Pumpage by well (4,5)	0 MG/Y (6)	0-2MG/Y (6)	2-5 MG/Y (6)	5-10 MG/Y (6)	10-25(MG/Y)(6)	25-50 MG/Y(6)	50-75 MG/Y(6)	75-100 MG/Y(6)	100-150 MG/Y(6)	150-200 MG/Y(6)	200-250 MG/Y(6)	>250 MG/Y(6)
<b>Total 1570 of Wells</b>	503	673	90	54	45	44	20	31	71	29	8	2
<b>Annual Pumpage (MG/Y)</b>	0	200	322	376	705	1,593	1,282	2,764	8,786	4,846	1,769	609
<b>Avg. Daily Volume (MG/D)</b>	0.00	0.55	0.88	1.03	1.93	4.36	3.51	7.57	24.07	13.28	4.85	1.67
<b>% of Annual Volume Pumpage</b>	3.86%				96.14%							

Voting District	FY2000 No. of Wells for which Pumpage Fee Collected			
	Q1	Q2	Q3	Q4
1	73	71	74	72
2	63	57	63	58
3	51	50	45	42
4	52	49	50	48
5	43	43	44	37
<b>Total</b>	<b>282</b>	<b>270</b>	<b>276</b>	<b>257</b>

**Legend and Conversion Factors**  
 MGY and/or MG/Y is million gallons per year; MGD and/or MG/D is million gallons per day  
 1 acre-ft = 43,560 cubic feet                      1 MGD (million gallons per day) = 1,120 acre-ft per year  
 1 acre-ft = 325,851 gallons                      1 MGY (million gallons per year) = 3.07 acre-ft per year  
 ac-ft / yr = (MGD \* 1000) / 0.89

**Note:**

- (1) The terminology "MUD" includes entities shown on TNRCC District maps, entities assigned a TNRCC District Number, entities included in the HGCSO database, and a selected number of entities assigned a TNRCC Public Water Supply (PWS) Number.
- (2) The designation "Public Well" includes entities classified as "Public" by Harris Galveston Coastal Subsidence District (HGCSO), all entities assigned a TNRCC District Number, and all entities assigned a TNRCC Public Water Supply (PWS) Number.
- (3) The designation "Other" includes entities classified by HGCSO as "Industrial", "Agriculture Irrigation", and "Miscellaneous Irrigation"; and entities permitted by TNRCC with less than 15 connections or supplying less than 25 residents.
- (4) The number of wells does not include exempt wells.
- (5) Pumped volume per well is based on the average volume per well based on HGCSO records for 1999. The average volume per well is a calculated value based on the "total pumpage" divided by the "number of wells". The calculation is required since the HGCSO data base provides aggregate pumpage per entity and the number of wells per entity.
- (6) Population in voting district 3 and voting district 5 excludes 12 MUDs that have petitioned for exclusion from NHCRWA



**Table 3**

Telephone Survey



## ASSESS SHORT TERM NEEDS IN DISTRICT 3 / EVALUATE POTENTIAL SOLUTIONS

### List of Questions for Telephone Survey

1. Is the capacity of existing wells sufficient for year 2000?
  - If “no”, provide estimate of additional supply needed.
  - If “yes”; do you have an oversupply available for sale to the RWA?
2. Is the capacity of existing wells adequate for years 2001-2005?
  - If “no”, provide estimate of additional supply needed.
  - If “yes”; do you have an oversupply available for sale to the RWA?
3. Is the quality of existing groundwater wells adequate? If “no”, describe deficiencies.
4. Provide estimate of average daily demand for year 2000.
5. Describe condition of existing wells.
6. Provide depth of existing wells, estimate static water level (pump off), and estimate dynamic water level (pump on).

### MUD’S to be Called

1. MUD No. 261
2. Rolling Fork PUD
3. Windfern Forest UD
4. Harris Conty MUD No. 25
5. WHC MUD No. 1
6. NWHC MUD No. 29
7. Harris co. MUD No. 168
8. WHC MUD No. 9
9. Harris Co. MUD No. 170
10. White Oak Bend MUD
11. Reid Road MUD No. 2
12. WHC MUD No. 10
13. WHC MUD No. 11
14. WHC MUD No. 6
15. Review MUD’s in Voting District 3 in the area east and north of Jersey Village to see if I have overlooked any districts. If I have, add them to the list.

By: JJS, 5/18/00

g:\nhcrwa\nhcrwa01\engr\planning\telesurvey\_district3.doc



## ASSESSMENT OF SHORT TERM NEEDS IN DISTRICT 3 SURVEY / QUESTIONNAIRE

Mud Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

1. Is the capacity of existing wells sufficient for year 2000?

NO \_\_\_\_\_ YES \_\_\_\_\_

• If no, provide estimate of additional supply needed. \_\_\_\_\_ MG

• If yes, do you have an oversupply available for sale to the RWA?

No \_\_\_\_\_ Yes \_\_\_\_\_ MG (estimate)

2. Is the capacity of existing wells adequate for years 2001-2005?

NO \_\_\_\_\_ YES \_\_\_\_\_

• If no, provide estimate of additional supply needed. \_\_\_\_\_ MG

• If yes, do you have an oversupply available for sale to the RWA?

No \_\_\_\_\_ Yes \_\_\_\_\_ MG (estimate)

3. Is the quality of existing groundwater wells adequate?

NO \_\_\_\_\_ YES \_\_\_\_\_

If no, describe deficiencies. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

4. Provide estimate of average daily demand for year 2000.

\_\_\_\_\_ MGD

5. Describe condition of existing wells.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Provide depth of existing wells.

Well # \_\_\_\_\_

Estimated static water level (pump off) \_\_\_\_\_ ft.

Estimated dynamic water level (pump on) \_\_\_\_\_ ft.

Well # \_\_\_\_\_

Estimated static water level (pump off) \_\_\_\_\_ ft.

Estimated dynamic water level (pump on) \_\_\_\_\_ ft.

Well # \_\_\_\_\_

Estimated static water level (pump off) \_\_\_\_\_ ft.

Estimated dynamic water level (pump on) \_\_\_\_\_ ft.

Well # \_\_\_\_\_

Estimated static water level (pump off) \_\_\_\_\_ ft.

Estimated dynamic water level (pump on) \_\_\_\_\_ ft.

NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
SUMMARY OF SURVEY / QUESTIONNAIRE

	HC MUD No. 25	HC MUD No. 261	WHC MUD No. 1	Rolling Fork PUD	Windfern Forest UD	HC MUD No. 6	HC MUD No. 23 ***	HC MUD No. 168	HC MUD No. 170	NWHC MUD No. 29	Reid Road No. 1	Reid Road No. 2	WHC MUD No. 9	WHC MUD No. 10	WHC MUD No. 11	WHC MUD No. 21	White Oak Bend MUD
<b>Is the capacity of existing wells sufficient for year 2000?</b>																	
YES	X		X	X			X	X	X	X	X	X	X	X	X	X	X
NO																	
<b>Available for Sale to RWA ?</b>																	
YES	X * 300 MG						X	X	X	X	X	X				X	X
NO			X	X										X			
<b>Is the capacity of existing wells adequate for years 2001-2005?</b>																	
YES	X		X	X			X	X	X	X	X	X	X	X	X	X	X
NO												X - 50 MG					
<b>Available for Sale to RWA ?</b>																	
YES	X * 1450 MG						X	X	X	X	X			X		X	X
NO			X	X													
<b>Is the quality of existing groundwater wells adequate?</b>																	
YES	X		X	X			X	X	X	X	X	X	X	X	X	X	X
NO																	
<b>Provide estimate of average daily demand for year 2000.</b>																	
0.0-0.5 MGD	X		X									X				X	X
0.51-1.0 MGD									X				X		X		
1.01-1.5 MGD				X													
1.51-3.0 MGD								X									
<b>Describe condition of existing wells.</b>																	
SUPERIOR										X			X		X		
EXCELLENT			X														
GOOD	X										X	X		X			
MARGINAL																	X
STABLE				X			X	X	X							X	
New Well to be installed														X	X		X
<b>Provide depth of existing wells.</b>																	
<b>Static Water Level</b>																	
200-250													X	X	X		
251-300																	
301-350											X						X
351-400	X			X								X					
401-450			X								X	X					X
451-500								X	X	X							
<b>Dynamic Water Level</b>																	
200-250													X	X	X		
251-300																	
301-350																	
351-400																	
401-450											X	X	X	X	X	X	X
451-500	X		X	X							X	X				X	
501-550								X	X		X						
551-600									X								
<b>Well Drawdown</b>																	
0-50																	
51-100	X		X	X				X	X		X					X	
101-150																	
151-200																	
201-250																	

NOTES:  
MUDs shown in red indicate those that have opted out of the NHCRWA  
\* May require modification to Subsidence District existing permit of 140 MGY  
\*\* Experiencing iron bacteria problem and hydrogen sulfide in Well # 1  
\*\*\* Instructed by the Board of Directors not to provide information to the NHCRWA

**Table 4**

Questionnaire Results

EARLY ACTION PROGRAM QUESTIONNAIRE

DISTRICT No.	District	OWNER	Will MUD Participate in Early Action Water Program ?			COMMENTS
			YES	NO	NO / DID NOT RESPOND	
2412500	1	Cypress Creek Ud			X	
2412750	1	Cypress Hill Mud 1			X	
2875000	1	Emerald Forest Ud			X	
5	1	Enchanted Valley Pud			X	
3028000	1	Faulkey Gully Mud			X	
7	1	Grant Road Pud			X	
3733010	1	Harris Co Fwed 61			X	
3737084	1	Harris Co Mud 18			X	
3737512	1	Harris Co Mud 222			X	
3737528	1	Harris Co Mud 230			X	
3737570	1	Harris Co Mud 248			X	
3737766	1	Harris Co Mud 286			X	
3737840	1	Harris Co Mud 322			X	
3738000	1	Harris Co Mud 354			X	
3738050	1	Harris Co Mud 358			X	
3738090	1	Harris Co Mud 360			X	
	1	Harris Co Mud 365			X	
3737186	1	Harris Co Mud 69			X	
4241130	1	Harris Co Wc&ld 113			X	
4241470	1	Harris Co Wc&ld 155			X	
5307000	1	Lake Forest Ud			X	
5662200	1	Maloomson Road Ud			X	
5851000	1	Mills Road Mud			X	
6030000	1	Northwest Freeway Mud			X	
6041100	1	Nw Harris Co Mud 5			X	
6041300	1	Nw Harris Co Mud 9			X	
6041400	1	Nw Harris Co Mud 10			X	
7784000	1	Timberlake Id			X	
8472972	1	West Harris Co Mud 15			X	
Subtotal Dist 1	29		0	0	29	



EARLY ACTION PROGRAM QUESTIONNAIRE

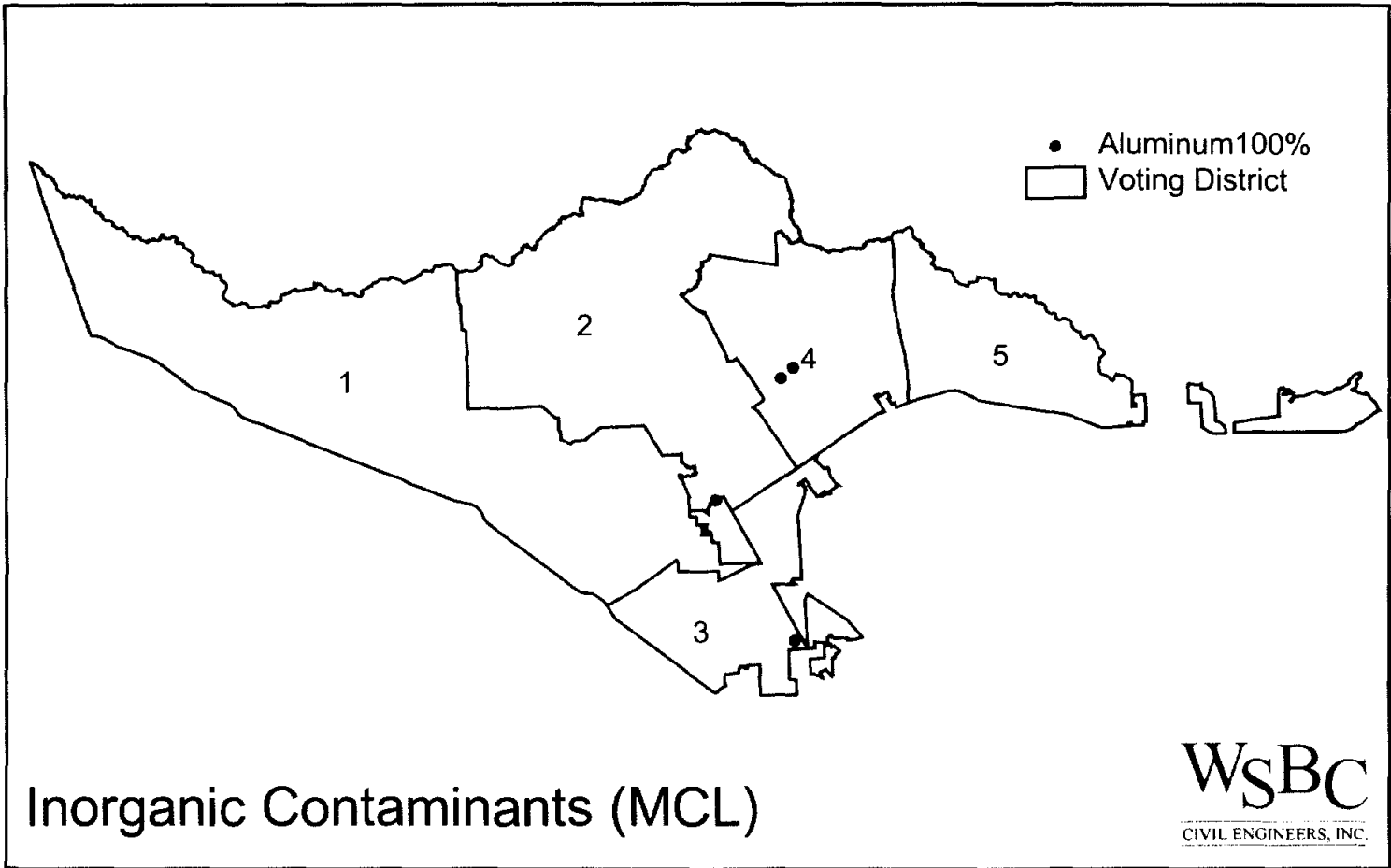
DISTRICT No.	District	OWNER	Will MUD Participate in Early Action Water Program ?			COMMENTS
			YES	NO	NO / DID NOT RESPOND	
2283250	2	Charterwood Mud			X	
2412300	2	Cy-Champ Pud			X	
11	2	Cypress Forest Pud		X		
3728000	2	Harris Co Fwrd 52		X		
12	2	Harris Co Mud 1			X	
3737450	2	Harris Co Mud 191			X	
3737096	2	Harris Co Mud 24			X	
3737750	2	Harris Co Mud 280			X	
	2	Harris Co Mud 367			X	
3738300	2	Harris Co Mud 368			X	
4241140	2	Harris Co Wc&ld 114		X		
4241180	2	Harris Co Wc&ld 116			X	
13	2	Harris Co Wc&ld 119			X	
4421010	2	Heatherloch Mud			X	
14	2	Kleinwood Mud			X	
5448900	2	Louetta North Pud		X		
5968000	2	Northampton Mud			X	
6041540	2	Nw Harris Co Mud -15			X	
6041565	2	Nw Harris Co Mud 19			X	
6182000	2	Oakmont Pud			X	
7156000	2	Prestonwood Forest Ud	X			Purchase 1.4 mgd
Subtotal Dist. 2	21		1	4	16	

EARLY ACTION PROGRAM QUESTIONNAIRE

DISTRICT No.	District	OWNER	Will MUD Participate in Early Action Water Program ?			COMMENTS
			YES	NO	NO / DID NOT RESPOND	
3099500	3	Fountainhead Mud			X	
3737284	3	Harris Co Mud 118			X	
3737080	3	Harris Co Mud 16			X	
3737404	3	Harris Co Mud 168			X	
3737408	3	Harris Co Mud 170			X	
3737428	3	Harris Co Mud 180			X	
3737472	3	Harris Co Mud 202			X	
23	3	Harris Co Mud 247			X	
3737098	3	Harris Co Mud 25			X	
4241090	3	Harris Co Wc&Id 109			X	
4241330	3	Harris Co Wc&Id 133			X	
6042825	3	Northwest Park Mud			X	
6041150	3	Nw Harris Co Mud 6			X	
6041575	3	Nw Harris Co Mud 21			X	
6041580	3	Nw Harris Co Mud 22			X	
6041585	3	Nw Harris Co Mud 23			X	
6041587	3	Nw Harris Co Mud 24			X	
6041700	3	Nw Harris Co Mud 29			X	
7281100	3	Reid Road Mud 1			X	
7281210	3	Reid Road Mud 2			X	
8472850	3	West Harris Co Mud 1			X	
8472960	3	West Harris Co Mud 9		X		
8472962	3	West Harris Co Mud 10			X	
8472964	3	West Harris Co Mud 11			X	
8472987	3	West Harris Co Mud 21			X	
8537000	3	White Oak Bend Mud			X	
Subtotal Dist. 3	26		0	1	25	

EARLY ACTION PROGRAM QUESTIONNAIRE

DISTRICT No.	District	OWNER	Will MUD Participate in Early Action Water Program ?			COMMENTS
			YES	NO	NO / DID NOT RESPOND	
1175000	4	Bammel Ud			X	
1543000	4	Bilma Pud		X		
1703000	4	Bridgestone Mud		X		
1768000	4	Cnp Utility District			X	
2412800	4	Cypress-Klein Ud			X	
2414500	4	Cypresswood Ud			X	
2745000	4	Dove Meadows Mud			X	
2747000	4	Dowdell Pud		X		
2880000	4	Encanto Real Ud			X	
3737256	4	Harris Co Mud 104			X	
3737490	4	Harris Co Mud 211		X		
3737534	4	Harris Co Mud 233			X	
3737740	4	Harris Co Mud 275			X	
3737828	4	Harris Co Mud 316			X	
3737136	4	Harris Co Mud 44			X	
4241100	4	Harris Co Wc&Id 110			X	
4241320	4	Harris Co Wc&Id 132		X		
4200000	4	Harris Co Wc&Id 91			X	
5197500	4	Klein Pud			X	
5449000	4	Louetta Road Ud			X	
6041570	4	Nw Harris Co Mud 20			X	
6041680	4	Nw Harris Co Mud 28			X	
6041702	4	Nw Harris Co Mud 30			X	
6041706	4	Nw Harris Co Mud 32			X	
6041714	4	Nw Harris Co Mud 38			X	
7122000	4	Ponderosa Forest Ud			X	
7557000	4	Shasia Pud		X		
7591700	4	Spring Creek Forest Pud		X		
7593525	4	Spring West Mud			X	
7776000	4	Terranova West Mud			X	
40	4	Westador Mud	X			Sell water surplus
Subtotal Dist. 4	31		1	7	33	



Inorganic Contaminants (MCL)

**WSBC**  
CIVIL ENGINEERS, INC.

**Figure 1**

Sample Questionnaire



Ed Shackelford, P.E.  
General Manager

BOARD OF DIRECTORS  
Alan J. Rendl, *President*  
Jim Burke, *Vice President*  
Lenox A. Sigler, *Secretary*  
James D. Pulliam, *Treasurer*  
Dwight "Clint" Moore, *Director*

August 28, 2000

Mr. \_\_\_\_\_, District President

Dear Mr. \_\_\_\_\_:

Various Municipal Utility Districts (MUDs) have indicated to the North Harris County Regional Water Authority that water wells in and near the Authority's boundary are experiencing water shortages due to reduced well capacity, drought conditions, and/or water quality problems. Since the Harris/Galveston Coastal Subsidence District groundwater withdrawal reduction mandate does not take effect until 2010, there may be a need to design and construct interconnects between MUDs to alleviate the immediate water shortage and/or water quality problems. We are following up with this correspondence to all MUDs in the Authority to attempt to determine who is experiencing water shortages or surpluses. We would greatly appreciate you or your designee providing information by completing the form and returning it to the Authority's office either by fax or in the enclosed stamped envelope.

The requested information is essential for the Authority to determine which water districts are interested in participating in the Early-Action Program. We envision the Early Action Program would make water available to those districts having shortages. A lot of details need to be identified, however, we need to know which districts are interested. Your response will prompt a quick follow up from our Program Management Consultant (WSBC Civil Engineers, Inc./Turner Collie & Braden, Inc.) to meet with you and/or your MUD engineer to further identify your specific water quantity or quality issue and explore possible short/long term solutions. Since the "Early Action Program" has not been fully defined, your information and participation is crucial in developing an effective program to meet the immediate and near-term needs of the districts. We perceive some of the following aspects might be included in the program:

- We will be requesting each participating member district to provide estimates of water demand or surplus under the most critical circumstances such as the drought conditions we have been experiencing.
- If there is sufficient interest, our goal is to develop feasible solutions for the affected district's consideration. Potential solutions could include construction of interconnects, water lines, storage and possibly other water facilities within the next few years (2000-2003).
- At this time, participation in the Early Action Program is voluntary. The more participants involved, the more cost-effective the program.

Your earliest reply and return of this survey enables us to evaluate whether an early action program is needed. Return this survey form by FAX to (281) 440-4104 or mail in the self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Any forms not returned within two weeks will be interpreted as having no interest in the program.

Thank you in advance for your assistance. If you have questions or need additional information, please call me at (281) 440-3924.

Very truly yours,

Ed Shackelford, P.E.  
General Manager, NHCRWA

CC: NHCRWA Board of Directors  
J. Wozny, WSBC

August 28, 2000

Mr. \_\_\_\_\_, District President

Would you be interested in participating in an early action water program? YES   
NO

---

If you answered YES, as a Purchaser?  Or a Supplier?

I would like to purchase \_\_\_\_\_ mgd, I would like to sell \_\_\_\_\_ mgd.

due to:            Insufficient supplies,   
                     Drought conditions,   
                     or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

\_\_\_\_\_

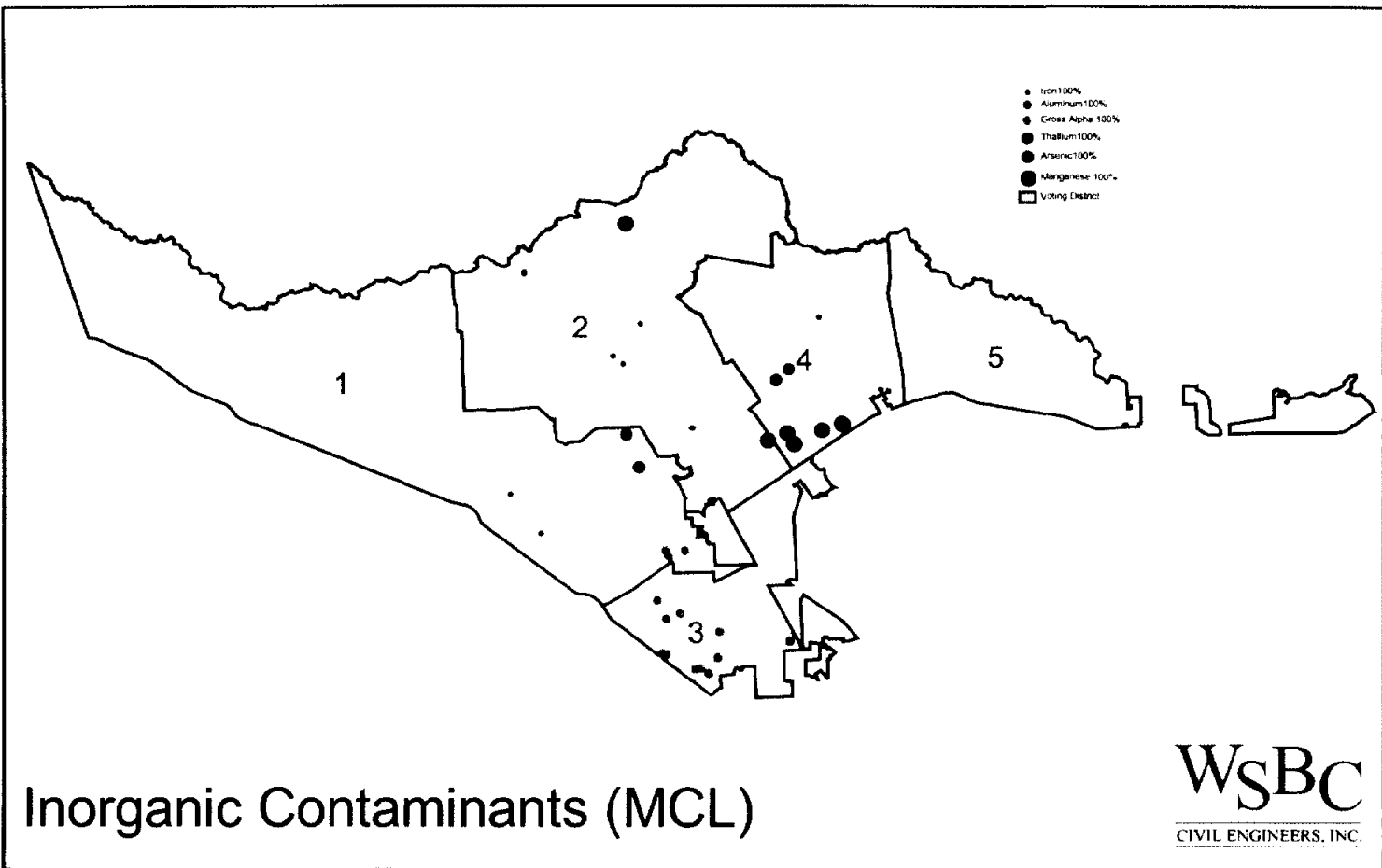
Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

**North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068**



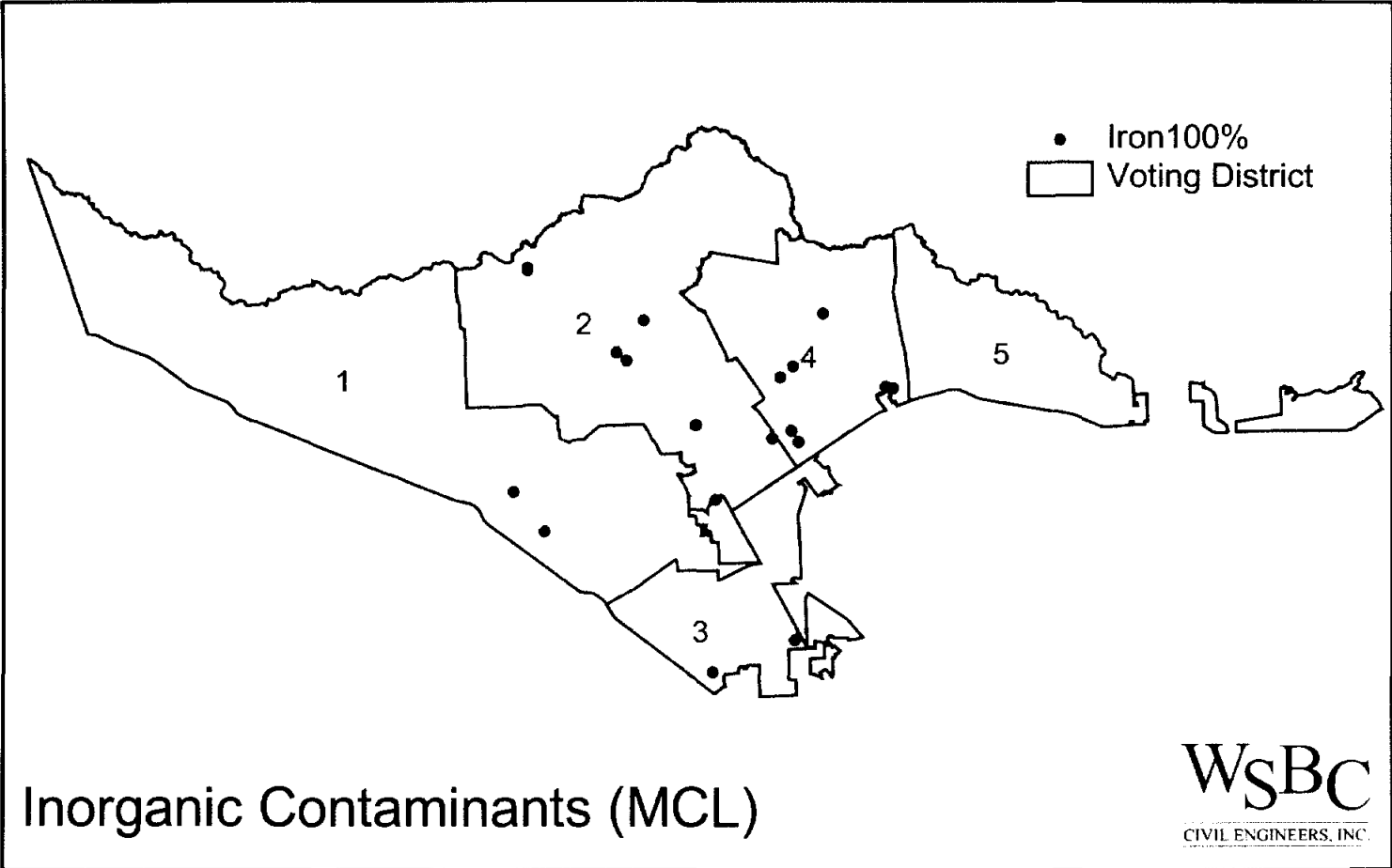
**Figure 2**

Potential Contaminated Wells



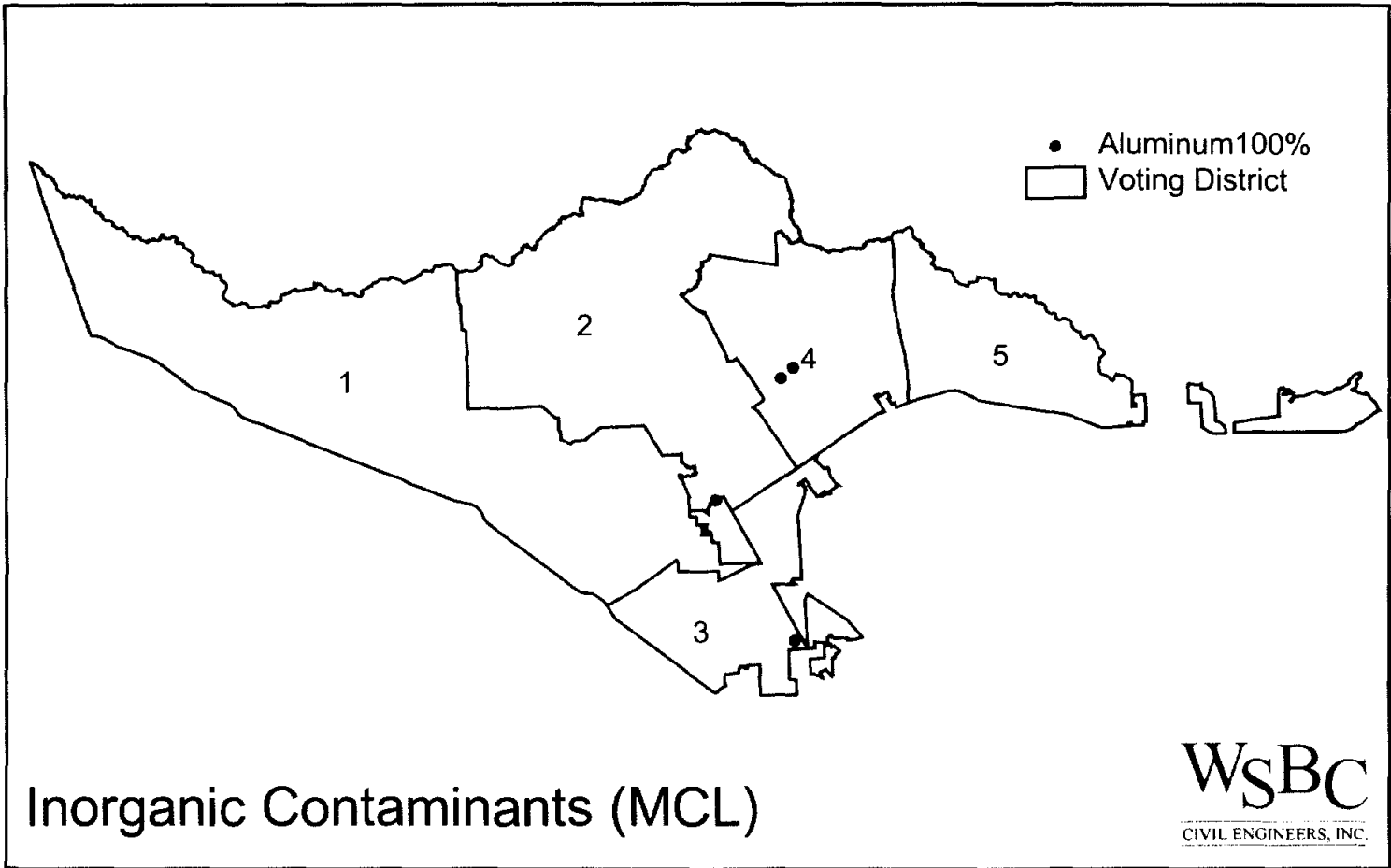
# Inorganic Contaminants (MCL)

**WSBC**  
CIVIL ENGINEERS, INC.



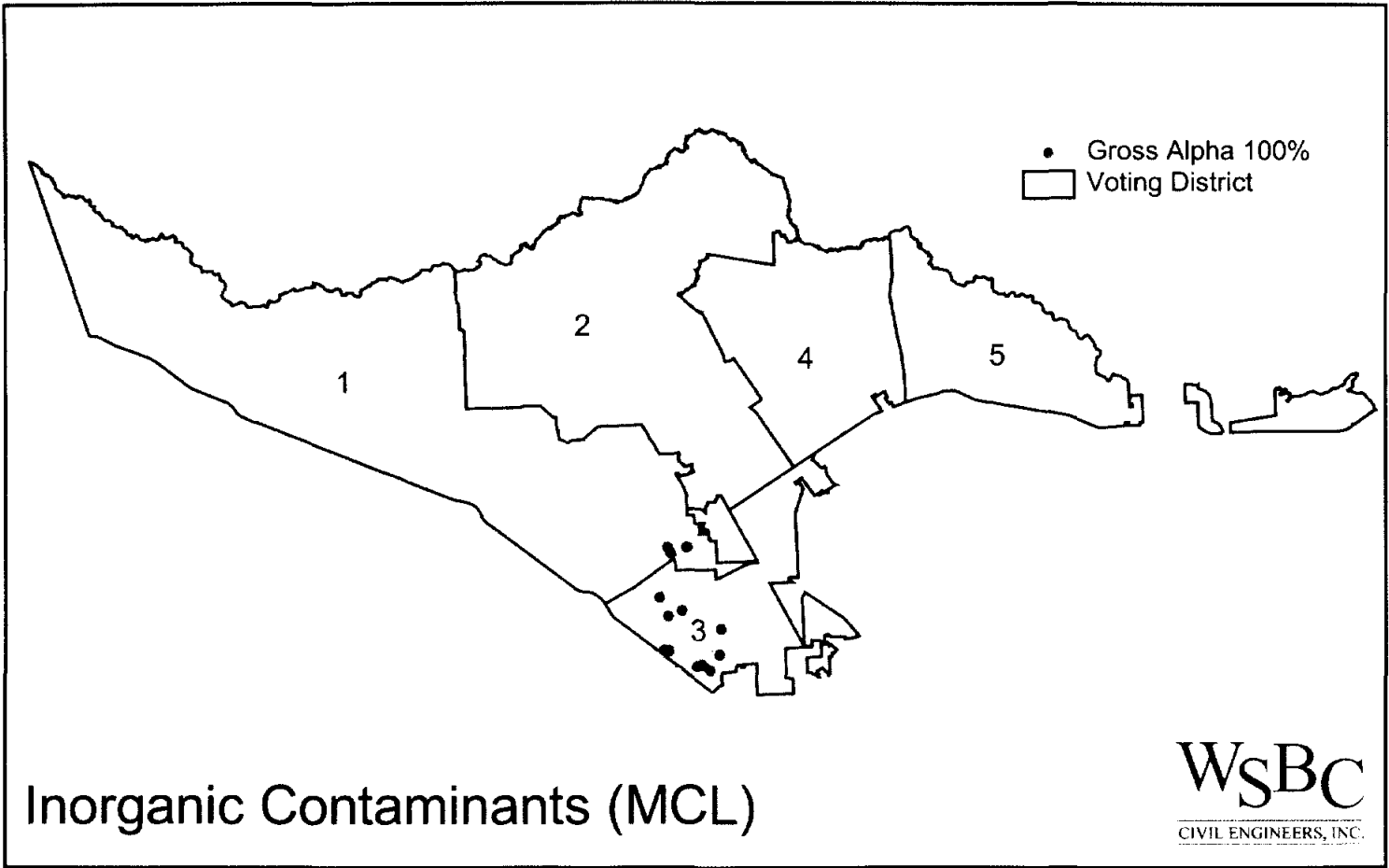
Inorganic Contaminants (MCL)

WSBC  
CIVIL ENGINEERS, INC.



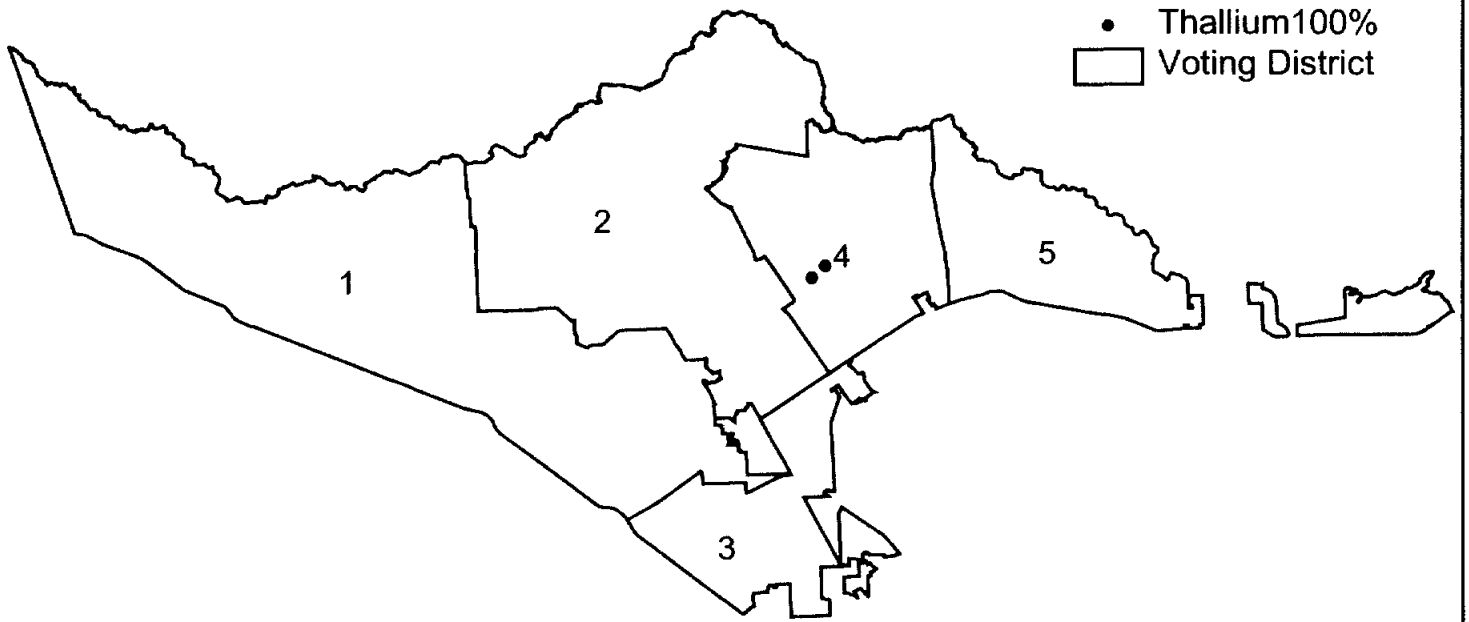
Inorganic Contaminants (MCL)

WSBC  
CIVIL ENGINEERS, INC.



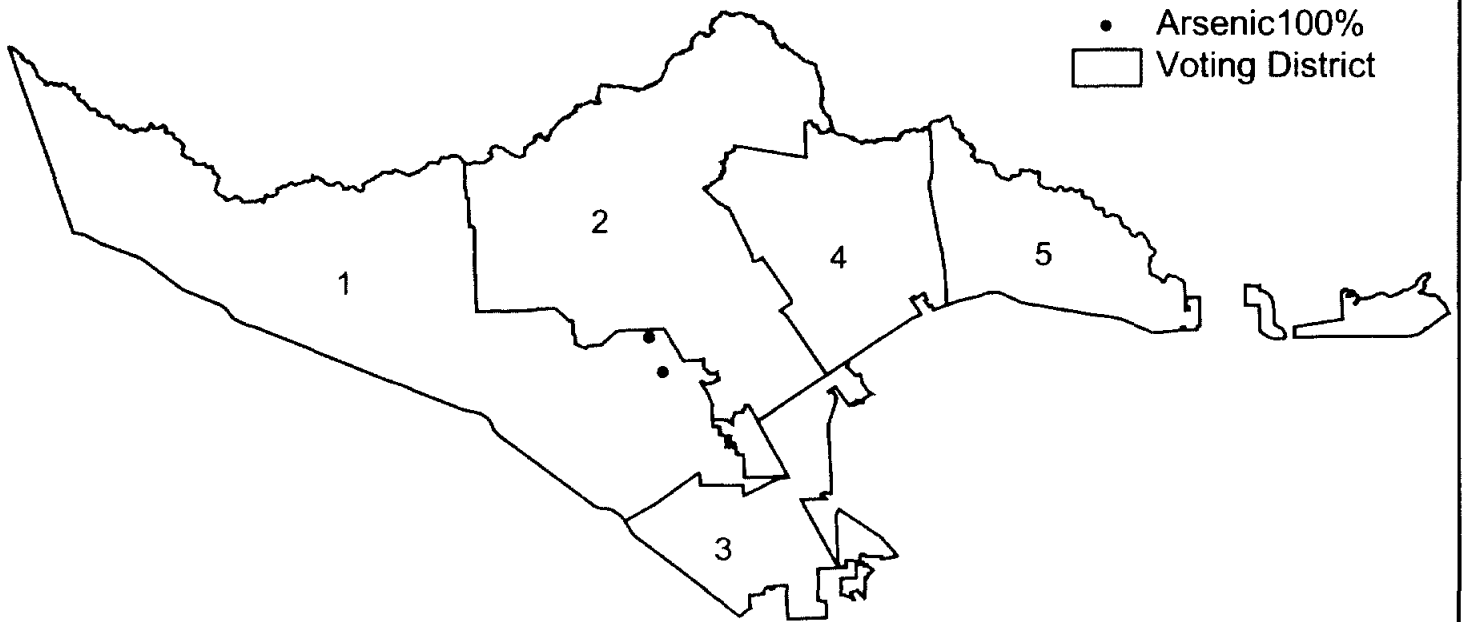
Inorganic Contaminants (MCL)

**WSBC**  
CIVIL ENGINEERS, INC.



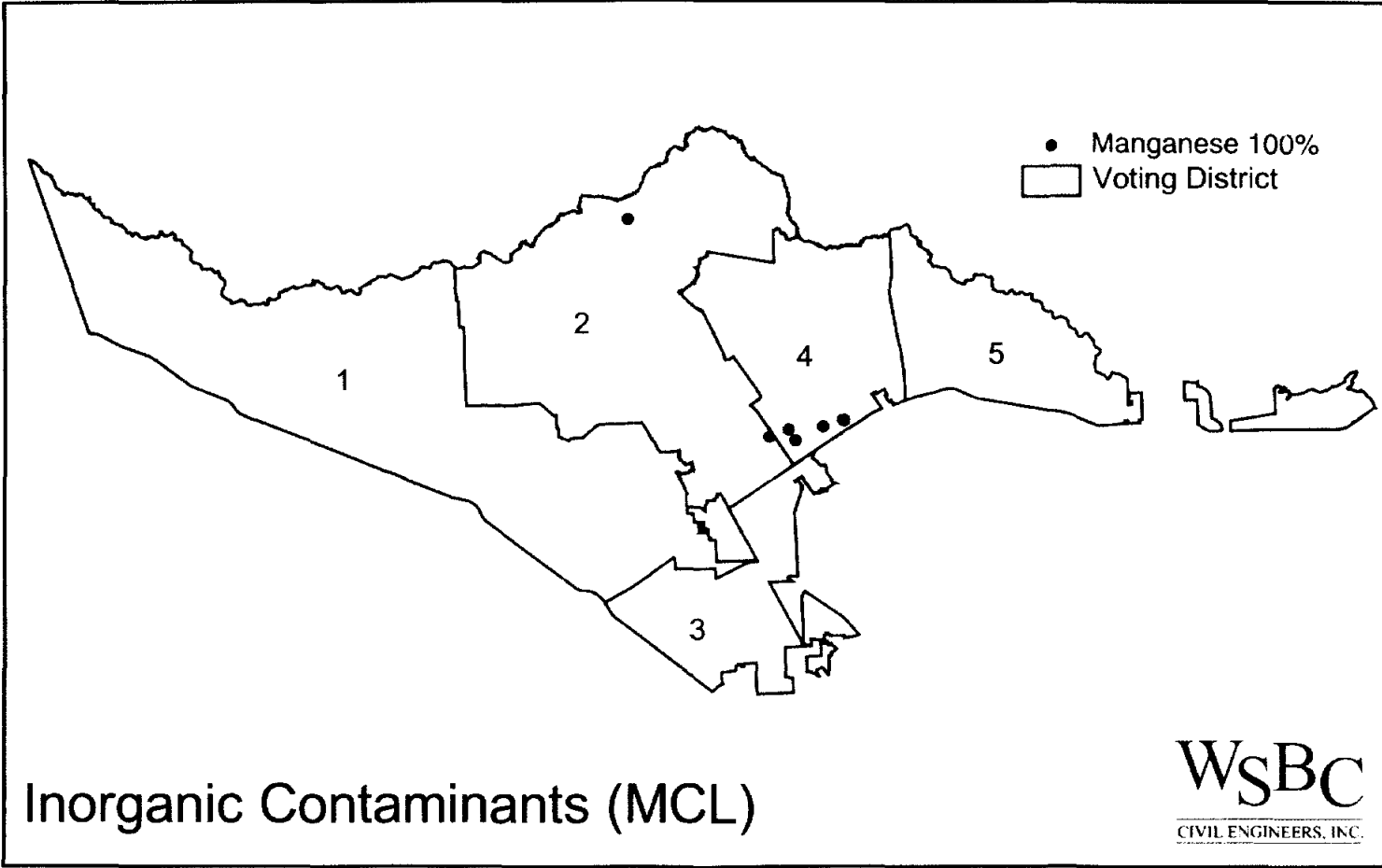
Inorganic Contaminants (MCL)

WSBC  
CIVIL ENGINEERS, INC.



# Inorganic Contaminants (MCL)

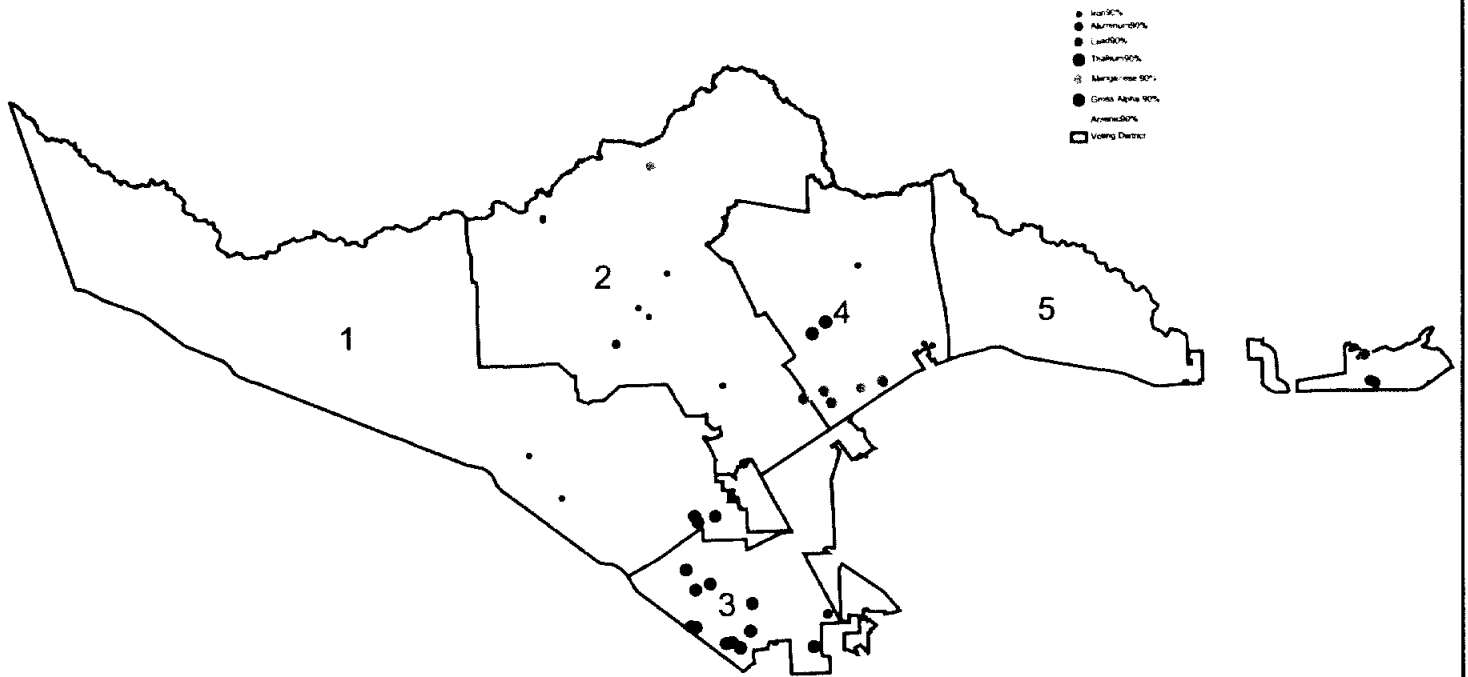
**WSBC**  
CIVIL ENGINEERS, INC.



Inorganic Contaminants (MCL)

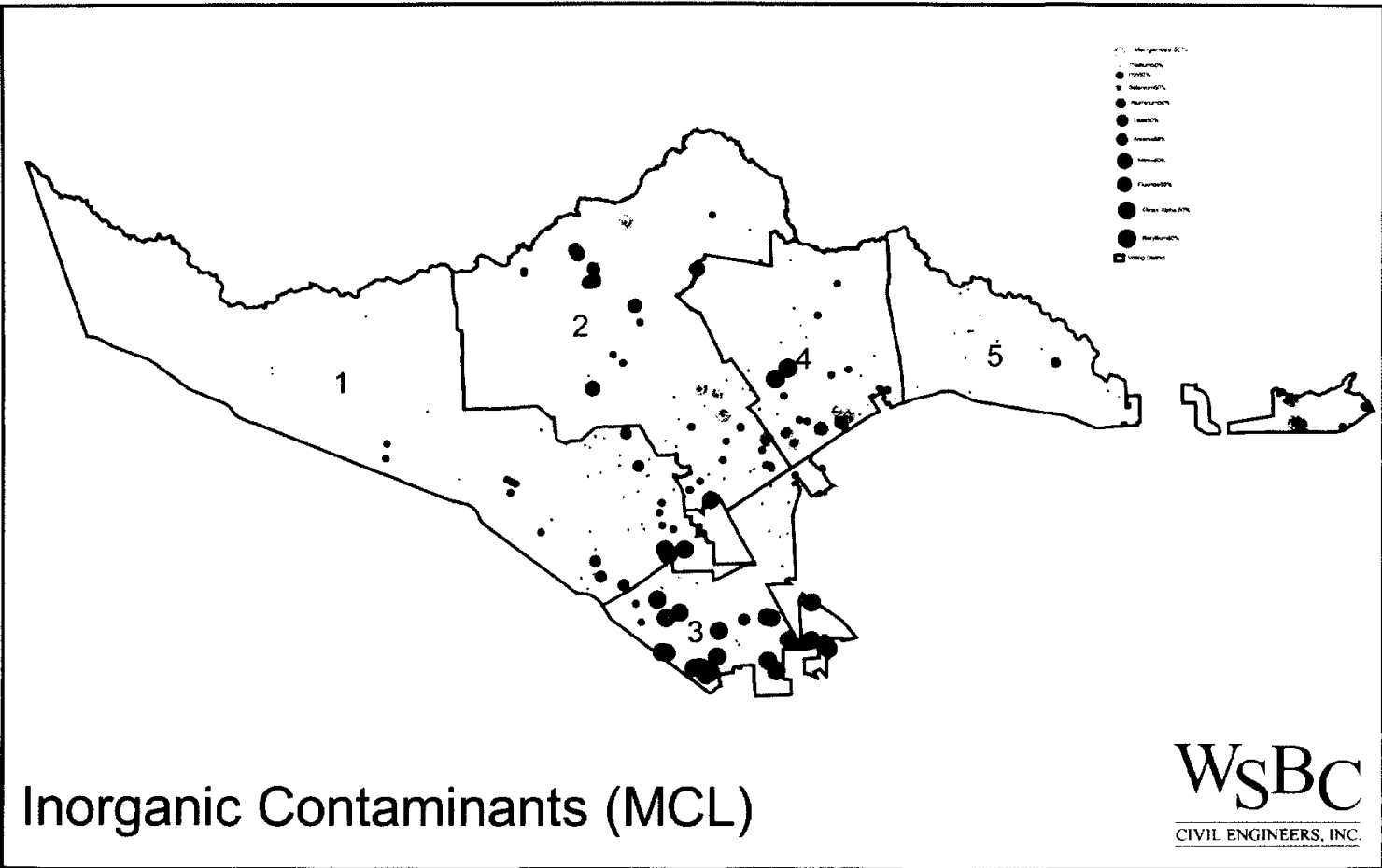
WSBC  
CIVIL ENGINEERS, INC.





# Inorganic Contaminants (MCL)

**WSBC**  
 CIVIL ENGINEERS, INC.



Inorganic Contaminants (MCL)

WSBC  
 CIVIL ENGINEERS, INC.

ARCADIS WSBC

**Appendix A**

Questionnaires

cc: V. WOZNY  
FILE

August 28, 2000

Mr. Gary W. Craig, District President  
Prestonwood Forest Ud  
8227 Middlebury Lane  
Houston, TX 77070  
281-970-0505

Would you be interested in participating in an early action water program? YES   
NO

DISTRICT IS EXPLORING THIRD WELL  
AT THIS TIME.

If you answered YES, as a Purchaser?  Or a Supplier?

I would like to purchase 140 mgd, I would like to sell  mgd.

due to: Insufficient supplies,

Drought conditions,

or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068



Ed Shackelford, P.E.  
General Manager

BOARD OF DIRECTORS  
Alan J. Rendi, *President*  
Jim Burke, *Vice President*  
Lenox A. Sigler, *Secretary*  
James D. Pulliam, *Treasurer*  
Dwight "Clint" Moore, *Director*

August 28, 2000

Mr. Gary W. Craig, District President  
Prestonwood Forest Ud  
8227 Middlebury Lane  
Houston, TX 77070  
281-970-0505

Dear Mr. Craig:

Various Municipal Utility Districts (MUDs) have indicated to the North Harris County Regional Water Authority that water wells in and near the Authority's boundary are experiencing water shortages due to reduced well capacity, drought conditions, and/or water quality problems. Since the Harris/Galveston Coastal Subsidence District groundwater withdrawal reduction mandate does not take effect until 2010, there may be a need to design and construct interconnects between MUDs to alleviate the immediate water shortage and/or water quality problems. We are following up with this correspondence to all MUDs in the Authority to attempt to determine who is experiencing water shortages or surpluses. We would greatly appreciate you or your designee providing information by completing the form and returning it to the Authority's office either by fax or in the enclosed stamped envelope.

The requested information is essential for the Authority to determine which water districts are interested in participating in the Early Action Program. We envision the Early Action Program would make water available to those districts having shortages. A lot of details need to be identified, however, we need to know which districts are interested. Your response will prompt a quick follow up from our Program Management Consultant (WSBC Civil Engineers, Inc./Turner Collie & Braden, Inc.) to meet with you and/or your MUD engineer to further identify your specific water quantity or quality issue and explore possible short/long term solutions. Since the "Early Action Program" has not been fully defined, your information and participation is crucial in developing an effective program to meet the immediate and near-term needs of the districts. We perceive some of the following aspects might be included in the program:

- We will be requesting each participating member district to provide estimates of water demand or surplus under the most critical circumstances such as the drought conditions we have been experiencing.
- If there is sufficient interest, our goal is to develop feasible solutions for the affected district's consideration. Potential solutions could include construction of interconnects, water lines, storage and possibly other water facilities within the next few years (2000-2003).
- At this time, participation in the Early Action Program is voluntary. The more participants involved, the more cost-effective the program.

Your earliest reply and return of this survey enables us to evaluate whether an early action program is needed. Return this survey form by FAX to (281) 440-4104 or mail in the self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Any forms not returned within two weeks will be interpreted as having no interest in the program.

Thank you in advance for your assistance. If you have questions or need additional information, please call me at (281) 440-3924.

Very truly yours,



Ed Shackelford, P.E.  
General Manager, NHCRWA

CC: NHCRWA Board of Directors  
J. Wozny, WSBC

**ALEXANDER ENGINEERING, INC.**

consulting engineers  
 400 RANDAL WAY, SUITE 200  
 SPRING, TEXAS 77388  
 (281) 350-7027  
 FAX (281) 350-7035

**LETTER OF TRANSMITTAL**

DATE	October 18, 2000	JOB NO.	168-001
ATTENTION:	Mr. Ed Shackelford, P.E.		
RE:	Prestonwood Forest U.D.		

TO: North Harris County Regional Water Author.  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:

- Shop drawings    Prints    Plans    Samples    Specifications  
 Copy of letter    Change order    \_\_\_\_\_

COPIES	DATE	NO.	DESCRIPTION
1			Early Action Survey

THESE ARE TRANSMITTED as checked below:

- For approval    No Exceptions    Resubmit \_\_\_\_\_ copies for approval  
 For your use    Exceptions Noted    Submit \_\_\_\_\_ copies for distribution  
 As requested    Returned for corrections    Return \_\_\_\_\_ corrected prints  
 For review and comment    \_\_\_\_\_  
 FOR BIDS DUE \_\_\_\_\_ 20 \_\_\_\_\_  PRINTS RETURNED AFTER LOAN TO US

REMARKS Dear Mr. Shackelford,

The Prestonwood Forest Utility District has requested that I respond to the enclosed survey. This District is presently reviewing all options for obtaining a third water source due to the declining pumping capacities in their present water wells.

Should there be any questions, please let me know.

COPY TO \_\_\_\_\_

SIGNED: Mark W. Adam, P.E.  
Vice President

W. J. HOLLY  
FILE



**JONES & CARTER, INC.**  
*Consulting Engineers*

6335 Gulfon, Suite 200  
Houston, Texas 77081-1169

713/777-5337  
Fax 713/777-5976

October 13, 2000

Mr. Ed Shackelford, P.E.  
North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

Re: Early Action Water Program Survey  
Westador Municipal Utility District

Dear Mr. Shackelford:

Westador Municipal Utility District (MUD) has received the North Harris County Regional Water Authority (NHCRWA) request for information. Westador MUD supports the NHCRWA and is willing to participate in an early action water program.

Currently our District does not have a water shortage problem. We would be willing sell our surplus water, but the quantity of surplus water would be dependent on the circumstances at the time of the water demand. Therefore, we are unable to provide an appropriate response for the early action water program survey.

We hope this information will be sufficient for your early action water program. Should you have any questions or require additional information, please call.

Sincerely,

J. R. (Bob) Jones, P.E.

HCV:kfb  
HCV\WESTADOR\NHCRWA SURVEY

Enclosure



August 28, 2000

Mr. Abraham Rubinsky (Attorney), District President  
Westador Mud  
1300 Post Oak Blvd. #1400  
Houston, TX 77056  
713-623-4531

Would you be interested in participating in an early action water program? YES   
NO

---

If you answered YES, as a Purchaser?  Or a Supplier?   
I would like to purchase  mgd, I would like to sell  mgd.  
due to:           Insufficient supplies,   
                      Drought conditions,   
                      or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

CC: J. WOZNIAK ✓  
FILE SD. 10-16-00

August 28, 2000

Mr. William H. Grosse, District President  
Harris Co Fwsd 52  
6206 Rolling Water  
Houston, TX 77069  
281-440-4799

Would you be interested in participating in an early action water program? YES   
NO

---

If you answered YES, as a Purchaser?  Or a Supplier?   
I would like to purchase  mgd, I would like to sell  mgd.  
due to:           Insufficient supplies,   
                      Drought conditions,   
                      or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

CU V HOLLY  
FILE

August 28, 2000

Mr. R.W. Kehlenbach, District President  
Spring Creek Forest Pud  
17611 Rustington Drive  
Spring, TX 77379  
713-522-5518

Would you be interested in participating in an early action water program? YES   
NO

WE ARE ALREADY IN AN INTERCONNECT CONTRACT  
W/ MWA 24 + BILWA

If you answered YES, as a Purchaser?  Or a Supplier?

I would like to purchase  mgd, I would like to sell  mgd.

due to: Insufficient supplies,   
Drought conditions,   
or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

August 28, 2000

Mr. John Chamberlain, District President  
Bilma Pud  
16110 Lafone Drive  
Spring, TX 77379  
713-277-9065

Would you be interested in participating in an early action water program? YES   
NO

If you answered YES, as a Purchaser?  Or a Supplier?   
I would like to purchase  mgd, I would like to sell  mgd.  
due to: Insufficient supplies,   
Drought conditions,   
or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

cc: V. WOLNY  
FILE

August 28, 2000

Mr. John E. Johnson, District President  
Louetta North Pud  
17206 Colony Creek Drive  
Spring, TX 77379  
281-251-1690

Would you be interested in participating in an early action water program? YES   
NO

---

If you answered YES, as a Purchaser?  Or a Supplier?   
I would like to purchase  mgd, I would like to sell  mgd.  
due to: Insufficient supplies,   
Drought conditions,   
or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

FILE

August 28, 2000

Mr. Harry Lemaster, District President  
Shasla Pud  
3715 Acorn Springs Lane  
Spring, TX 77389  
713-864-8990

Would you be interested in participating in an early action water program? YES   
NO

---

If you answered YES, as a Purchaser?  Or a Supplier?   
I would like to purchase  mgd, I would like to sell  mgd.  
due to:           Insufficient supplies,   
                          Drought conditions,   
                          or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

CC: V. WOZNY  
FILE

August 28, 2000

Mr. Joseph Schwartz (Attorney), District President  
Harris Co Mud 249  
1300 Post Oak Blvd. # 1400  
Houston, TX 77056  
713-623-4531

Would you be interested in participating in an early action water program? YES   
NO

---

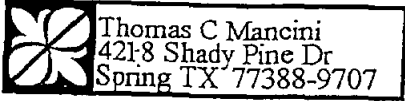
If you answered YES, as a Purchaser?  Or a Supplier?   
I would like to purchase \_\_\_\_\_ mgd, I would like to sell \_\_\_\_\_ mgd.  
due to:           Insufficient supplies,   
                      Drought conditions,   
                      or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

W.V. ... /  
FILE



August 28, 2000

*MR. THOMAS C. MANCINI, PRES.*

~~Ms. Barbara Knutson, District President~~

Harris Co Wc&Id 132

~~4247 Annawood Circle~~

Spring, TX 77388

~~281-440-1221~~ *281-353-7409*

Would you be interested in participating in an early action water program? YES

*NOT AT THIS TIME! WE ARE NOT AT PRESENT EXPERIENCING WATER SHORTAGES OR WATER QUALITY PROBLEMS.* NO

If you answered YES, as a Purchaser?

Or a Supplier?

I would like to purchase  mgd, I would like to sell  mgd.

due to: Insufficient supplies,

Drought conditions,

or Deteriorating quality.

If the quality of the supply is a problem, what is the main contaminant?

*Thomas C. Mancini  
President - WCID-132*

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068



W. V. ...  
FILE

August 28, 2000

Mr. Jack Searcy, Jr., District President  
Harris Co Wc&Id 114  
17307 Vintage Wood Lane  
Spring, TX 77379  
281-376-5538

Would you be interested in participating in an early action water program? YES   
NO

---

If you answered YES, as a Purchaser?  Or a Supplier?   
I would like to purchase  mgd, I would like to sell  mgd.  
due to:           Insufficient supplies,   
                      Drought conditions,   
                      or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

W. V. ...  
FILE

August 28, 2000

Ms. Sara Anderson (Attorney), District President  
Tattor Road Mud  
1100 Louisiana, Suite 400  
Houston, TX 77002  
713-652-6500

Would you be interested in participating in an early action water program? YES   
NO

If you answered YES, as a Purchaser?  Or a Supplier?   
I would like to purchase \_\_\_\_\_ mgd, I would like to sell \_\_\_\_\_ mgd.  
due to: Insufficient supplies,   
Drought conditions,   
or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

\_\_\_\_\_

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

CC: NAUKWA FORM-1  
J. WOZNY

DONALD E. ANDERSON  
15319 Woodland Orchard Lane  
Cypress, Texas 77429  
281-373-5838 Home  
713-739-6861 Office  
Email: DEASkier@AOL.COM \*  
Or  
Da01@ridemetro.com

RESPONDED BY EMAIL  
8/31/00/etf

August 30, 2000

Mr. Ed Shackelford, P.E., General Manager  
North Harris County Regional Water Authority  
3648 FM 1960 West  
Suite 110  
Houston, Texas 77068

Dear Mr. Shackelford,

I am in receipt of your letter regarding potential water shortages in our district and our Board will respond at our next meeting in late September.

I wanted to take this opportunity to congratulate you on your new position. There seem to be a lot of factions to deal with and I'm sure you're up to the task.

Also I wanted to make a couple of comments about the use of surface water and conservation. First, there is too little discussion on the subject of water conservation. In general, most utility districts and municipalities are recapturing approximately 85% of their water usage at the wastewater treatment plants. The problem is that the reclaimed and treated water is then dumped into drainage ditches. With a little more effort this water would be drinkable. The State Health Dept. has some written rules about this. The good news is that the City of El Paso, Texas is already doing something like this. And if you can believe Jay Leno, Los Angeles is also doing this on a limited scale.

Regarding surface water, I think too many of us in the Engineering community look at projects like this and see big fees and state-of-the-art technology being applied to a problem that the Romans solved 2000 years ago. You can move large volumes of water using minimal energy as some South Texas water districts do for the farmers in their region. You use high volume/low head pumping equipment to lift the water into a "stand-pipe" which overflows into the next section of the distribution system until it overflows into the next and so on.

You can move the water miles and up slopes with minimal equipment and the use of this water can be metered at the user's pump.

A system like this could be constructed along Cypress Creek and Spring Creek, and would most likely be less expensive than running a pipe down FM1960 or some other road. Almost every water district in your service is tied to one of these streams or a tributary. I appreciate this opportunity to make the above comments.

Good luck! If I can be of any service please let me know.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sam Alden", followed by a horizontal line extending to the right.

CC: J. WOZNY,  
FILE ✓

August 28, 2000

Mr. Robert E. Winkler, District President  
Harris Co Mud 211  
2702 North Southern Oaks Dr.  
Houston, TX 77068

Would you be interested in participating in an early action water program? YES   
NO

If you answered YES, as a Purchaser?  Or a Supplier?

I would like to purchase  mgd, I would like to sell  mgd.

due to: Insufficient supplies,   
Drought conditions,   
or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

cc: V. Wozniak  
File 9/28/01

August 28, 2000

Mr. Wayne Wilcox, District President  
West Harris Co Mud  
8811 Crazyhorse Trail  
Houston, TX 77064  
713-660-6000

(West Harris Co. MUD No. 9)

Would you be interested in participating in an early action water program? YES   
NO

If you answered YES, as a Purchaser?  Or a Supplier?   
I would like to purchase \_\_\_\_\_ mgd. I would like to sell \_\_\_\_\_ mgd.  
due to: Insufficient supplies,   
Drought conditions,   
or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

\_\_\_\_\_

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

SEP 22 2000



**JONES & CARTER, INC.**  
*Consulting Engineers*

6335 Gulfton, Suite 200  
Houston, Texas 77081-1169

713/777-5337  
Fax 713/777-5976

FILE

Dear  
DWS

September 26, 2000

Mr. Ed Shackelford, P.E.  
General Manager, NHCRWA  
3648 FM 1960 West, Suite 110  
Houston, TX 77068

Re: Early Action Program  
NHCRWA  
Bridgestone Municipal Utility District (the District)

Dear Mr. Shackelford:

We received your letter dated August 28, 2000, regarding the NHCRWA's Early Action Program to help Municipal Utility Districts (MUDs) in the area. The District currently has one (1) water interconnect and plans for another.

We thank you for the opportunity to participate in the Early Action Program; however, at this time we are unable to contribute any water to the surrounding MUD's.

Sincerely,

Erich M. Peterson

J&C/emp

Emp\bridgston\nhcrwa.doc

cc: Board of Directors – Bridgestone MUD  
Ms. Robin Bobbitt – Winstead Sechrest & Minick, P.C.  
Mr. Tom Dunn – AquaSource, Inc.

*cc: V. Wozzly  
FILE*

# Vinson & Elkins

ATTORNEYS AT LAW

VINSON & ELKINS L.L.P.  
1001 FANNIN STREET  
SUITE 2300

HOUSTON, TEXAS 77002-6760

TELEPHONE (713) 758-2222  
VOICE MAIL (713) 758-4300  
FAX (713) 815-5760

**CONFIDENTIALITY NOTICE:**

*The information contained in this FAX may be confidential and/or privileged. This FAX is intended to be reviewed initially by only the individual named below. If the reader of this TRANSMITTAL PAGE is not the intended recipient or a representative of the intended recipient, you are hereby notified that any review, dissemination or copying of this FAX or the information contained herein is prohibited. If you have received this FAX in error, please immediately notify the sender by telephone and return this FAX to the sender at the above address. Thank you.*

**CENTRAL FACSIMILE TRANSMITTAL PAGE**

DATE: September 15, 2000

RECIPIENT'S CONFIRMATION #:

TO: North Harris County Regional Water Authority

COMPANY:

TYPE OF DOCUMENT: Cypress Forest Public Utility District

PAGES: 2 *(including this transmittal page)*

FROM: Nicole K. Counts, Legal Assistant

SENDER'S PHONE #: (713) 758-3894

MESSAGE: Following is the aforementioned District's reply with respect to participation in an early action water program. Please note the Board has concurred it will not participate in the program. Should you have any questions, please feel free to call me.

We are sending from a machine that is Group I, II, III compatible. Please check transmission after the last page. If this FAX transmission is illegible or you do not receive all pages, please call the sender at the number listed above.

If you wish to respond, use FAX #: (713) 615-5760.

OPERATOR: RECIPIENT'S FAX #: 281-440-4104

HARD COPY FOLLOWS:  YES  NO



August 28, 2000

Mr. Joe Allen (Attorney), District President  
Cypress Forest Pud  
2300 First City Towers, 1001 Fannin  
Houston, TX 77002  
713-758-2096

Would you be interested in participating in an early action water program? YES   
NO

If you answered YES, as a Purchaser?  Or a Supplier?   
I would like to purchase  mgd, I would like to sell  mgd.  
due to: Insufficient supplies,   
Drought conditions,   
or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

FILE Dennis

August 28, 2000

Ms. Sara Anderson (Attorney), District President  
Dowdell Pud  
1100 Louisiana # 400  
Houston, TX 77002  
713-652-6500

Would you be interested in participating in an early action water program? YES   
NO

**NO**

If you answered YES, as a Purchaser?  Or a Supplier?   
I would like to purchase \_\_\_\_\_ mgd. I would like to sell \_\_\_\_\_ mgd.  
due to: Insufficient supplies,   
Drought conditions,   
or Deteriorating quality.

If the quality of the supply is a problem,  
what is the main contaminant?  
\_\_\_\_\_

Return this survey form by FAX to (281) 440-4104 or mail in self-addressed stamped envelope to:

North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

**Summary Sheet**  
North Harris County Regional Water Authority

Voting District	Number of MUDs (1)	Total No. of Wells	No. of Public Wells (2)	No. of Other Wells (3)	Total No. of Wells from 5MG/Y to 10MG/Y (4.5)	No. of Public Wells from 5MG/Y to 10MG/Y (4.5)	No. of Other Wells from 5MG/Y to 10MG/Y (4.5)	No. of Total Wells Greater than 10MG/Y (4.5)	No. of Public Wells Greater than 10MG/Y (4.5)	No. of Other Wells than 10MG/Y (4.5)	Greater
1	47	407	328	79	23	21	2	61	55	6	
2	33	406	294	112	14	12	2	59	51	8	
3	27	248	180	68	8	3	5	38	33	5	
4	34	324	258	66	5	5	0	57	55	2	
5	23	185	143	42	3	3	0	38	30	8	
<b>Total</b>	<b>164</b>	<b>1570</b>	<b>1203</b>	<b>367</b>	<b>53</b>	<b>44</b>	<b>9</b>	<b>253</b>	<b>224</b>	<b>29</b>	

Voting District	Population (Based on Census Tracts)	Area (Square Mile)	Annual Pumpage (MG/Y)	Avg. Daily Volume (MG/D)	No. of Exempt Wells Agriculture from 5MG/Y to 10MG/Y	No. of Exempt Wells Electrical from 5MG/Y to 10MG/Y	Total No. of Exempt Wells from 5MG/Y to 10MG/Y	No. of Exempt Wells Agriculture Greater than 10MG/Y	No. of Exempt Wells Electrical Greater than 10MG/Y	Total No. of Exempt Wells Greater than 10MG/Y	Greater
1	71,228	127.3	5727	15.7	1	0	1	5	0	5	
2	64,181	96.0	6093	16.7	0	0	0	0	0	0	
3	65,998	27.8	4250	11.6	0	0	0	0	0	0	
4	86,102	43.6	4538	12.4	0	0	0	0	0	0	
5	58,075	35.4	2648	7.3	0	0	0	0	0	0	
<b>Total</b>	<b>345,585</b>	<b>330.0</b>	<b>23255</b>	<b>63.7</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>5</b>	

Cal. Av. Pumpage by well (4.5)	0 MG/Y (5)	0-2MG/Y (5)	2-5 MG/Y (5)	5-10 MG/Y (5)	10-25(MG/Y)(5)	25-50 MG/Y(5)	50-75 MG/Y(5)	75-100 MG/Y(5)	100-150 MG/Y(5)	150-200 MG/Y(5)	200-250 MG/Y(5)	>250 MG/Y(5)
<b>Total 1570 of Wells</b>	503	673	90	54	45	44	20	31	71	29	8	2
<b>Annual Pumpage (MG/Y)</b>	0	200	322	376	705	1,593	1,282	2,764	8,786	4,846	1,769	609
<b>Avg. Daily Volume (MG/D)</b>	0.00	0.55	0.88	1.03	1.93	4.36	3.51	7.57	24.07	13.28	4.85	1.67
<b>% of Annual Volume Pumpage</b>		3.86%				96.14%						

Voting District	FY2000 No. of Wells for which Pumpage Fee Collected			
	Q1	Q2	Q3	Q4
1	73	71	74	72
2	63	57	63	58
3	51	50	45	42
4	52	49	50	48
5	43	43	44	37
<b>Total</b>	<b>282</b>	<b>270</b>	<b>276</b>	<b>257</b>

**Legend and Conversion Factors**  
 MGY and/or MG/Y is million gallons per year. MGD and/or MG/D is million gallons per day  
 1 acre-ft = 43,560 cubic feet                      1 MGD (million gallons per day) = 1,120 acre-ft per year  
 1 acre-ft = 325,851 gallons                      1 MGY (million gallons per year) = 3.07 acre-ft per year  
 ac-ft / yr = (MGD \* 1000) / 0.89

**Note:**

- (1). The terminology "MUD" includes entities shown on TNRCC District maps, entities assigned a TNRCC District Number, entities included in the HGCSO database, and a selected number of entities assigned a TNRCC Public Water Supply (PWS) Number.
- (2). The designation "Public Well" includes entities classified as "Public" by Harris Galveston Coastal Subsidence District (HGCSO), all entities assigned a TNRCC District Number, and all entities assigned a TNRCC Public Water Supply (PWS) Number.
- (3). The designation "Other" includes entities classified by HGCSO as "Industrial", "Agriculture Irrigation", and "Miscellaneous Irrigation"; and entities permitted by TNRCC with less than 15 connections or supplying less than 25 residents.
- (4). The number of wells does not include exempt wells.
- (5). Pumped volume per well is based on the average volume per well based on HGCSO records for 1999. The average volume per well is a calculated value based on the "total pumpage" divided by the "number of wells". The calculation is required since the HGCSO data base provides aggregate pumpage per entity and the number of wells per entity.
- (6). Population in voting district 3 and voting district 5 excludes 12 MUDs that have petitioned for exclusion from NHCRWA

NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
SUMMARY OF SURVEY / QUESTIONNAIRE

	HC MUD No. 25	HC MUD No. 261	WHC MUD No. 1	Rolling Fork PUD	Windham Forest UD	HC MUD No. 6	HC MUD No. 23 ***	HC MUD No. 168	HC MUD No. 170	NWHC MUD No. 29	Reid Road No. 1	Reid Road No. 2	WHC MUD No. 9	WHC MUD No. 10	WHC MUD No. 11	WHC MUD No. 21	White Oak Bend MUD	
<b>Is the capacity of existing wells sufficient for year 2000?</b>																		
YES	X		X	X			X	X	X	X	X	X	X	X	X	X	X	
NO																		
<b>Available for Sale to RWA ?</b>																		
YES	X	300 MG					X	X	X	X	X	X		X			X	X
NO			X	X														
<b>Is the capacity of existing wells adequate for years 2001-2005?</b>																		
YES	X		X	X			X	X	X	X	X	X	X	X	X	X	X	X
NO												X	50 MG					
<b>Available for Sale to RWA ?</b>																		
YES	X	1450 MG					X	X	X	X	X			X			X	X
NO			X	X														
<b>Is the quality of existing groundwater wells adequate?</b>																		
YES	X		X	X			X	X	X	X	X	X	X	X	X	X	X	X
NO																		
<b>Provide estimate of average daily demand for year 2000.</b>																		
0.0-0.5 MGD	X		X									X					X	X
0.51-1.0 MGD									X		X		X	X	X			
1.01-1.5 MGD				X														
1.51-3.0 MGD							X											
<b>Describe condition of existing wells.</b>																		
SUPERIOR										X			X		X			
EXCELLENT			X															
GOOD	X										X	X		X				
MARGINAL																		X
STABLE				X				X	X	X						X		
<b>New Well to be installed</b>																		
														X	X			X
<b>Provide depth of existing wells.</b>																		
<b>Static Water Level</b>																		
200-250													X	X	X			
251-300																		
301-350											X							X
351-400	X			X								X						
401-450			X								X							
451-500							X	X	X									
<b>Dynamic Water Level</b>																		
200-250													X	X	X			
251-300																		
301-350																		
351-400												X	X	X	X			X
401-450																		
451-500	X		X	X							X	X	X	X		X		
501-550							X	X			X							
551-600									X									
<b>Well Drawdown</b>																		
0-50																		
51-100	X		X	X							X	X						X
101-150																		
151-200																		
201-250																		

NOTES:  
MUDs shown in red indicate those that have opted out of the NHCRA  
\* May require modification to Subsidence District existing permit of 140 MG  
\*\* Experiencing iron bacteria problem and hydrogen sulfide in Well # 1  
\*\*\* Instructed by the Board of Directors not to provide information to the NHCRA