

**CERTIFICATE FOR ORDER OR RESOLUTION**

STATE OF TEXAS  
COUNTY OF HARRIS  
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 102

We, the undersigned officers of the Board of Directors of Harris County Municipal Utility District No. 102 of Harris County, Texas (the "District"), hereby certify as follows:

1. The Board of Directors of the District convened in regular session on the **28th day of January, 2008**, at the regular meeting place thereof, and the roll was called of the duly constituted officers and members of the Board, to-wit:

Robert Moorman	President
Douglas Jordan	Vice President
Irene Gregory	Secretary
Randal W. Ward	Treasurer and Assistant Vice President
David Scholler	Assistant Secretary

and all of said persons were present, except for the following absentees:

NONE, thus constituting a quorum.  
Whereupon, among other business, the following was transacted at said meeting:

**ORDER ADOPTING WATER CONSERVATION PLAN;  
PROVIDING FOR IMPLEMENTATION AND ENFORCEMENT THEREOF;  
AND CONTAINING OTHER PROVISIONS RELATED TO THE SUBJECT**

was introduced for the consideration of the Board. It was then duly moved and seconded that the Order or Resolution be adopted, and, after due discussion, the motion, carrying with it the adoption of said Order or Resolution, prevailed and carried by the following vote:

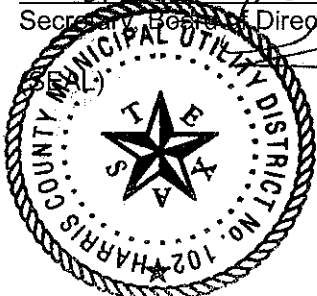
AYES: All present  
NOES:

2. That a true, full and correct copy of the aforesaid Order or Resolution adopted at the meeting described in the above and foregoing paragraph is attached to and follows this certificate; and that said Order or Resolution has been duly recorded in said Board's minutes of said meeting; that the persons named in the above and foregoing paragraph were duly chosen, qualified and acting officers and members of the Board as indicated therein, that each of the officers and members of said Board was duly and sufficiently notified officially and personally, in advance, to the holding of said meeting for such purpose; that said meeting was open to the public as required by law; that public notice of the time, place and subject of said meeting was given as required by the Texas Government Code, §551.043 and §551.054, as amended, and that the undersigned are the duly chosen, qualified and acting officers of the current Board of Directors.

**SIGNED AND SEALED the 28th day of January, 2008.**

  
Secretary, Board of Directors

  
Assistant Vice President, Board of Directors



ORDER ADOPTING WATER CONSERVATION PLAN; PROVIDING FOR  
IMPLEMENTATION AND ENFORCEMENT THEREOF; AND CONTAINING  
OTHER PROVISIONS RELATED TO THE SUBJECT

WHEREAS, the Board of Directors (the "Board") of Harris County Municipal Utility District No. 102 (the "District"), has carefully considered the current water conditions in the District and area-wide and has determined that the adoption of this Water Conservation Plan (the "Plan") by the District is necessary to ensure that an adequate supply of water is maintained; and

WHEREAS, the Board of the District desires to evidence its approval of this Plan and to adopt such Plan as the official policy of the District; NOW, THEREFORE,

BE IT ORDERED BY THE BOARD OF THE DISTRICT THAT

Section 1. Approval of the Plan. The Board of the District hereby approves and adopts this Plan as set forth in this Order, and the provisions of such Plan shall be implemented immediately and enforced as rules of the District.

Section 2. Declaration of Policy, Purpose and Intent. The purpose of the Plan is to promote the efficient and responsible use of water by (1) implementing structural programs that result in quantifiable water conservation results, (2) developing, maintaining and enforcing water conservation policies, and (3) supporting public education programs that educate customers about water and wastewater facilities operations, water quantity and quality, water conservation and non-point source protection.

Section 3. Service Area. Profile data for the District water utility is provided in Appendix "A". Appendix "A" includes data on the District's service area, including population and customer data, water use data, water supply system data and wastewater data. The Appendix "A" shall hereafter be updated at least once every five years.

Section 4. Five-year and Ten-year Targets. The District shall use reasonable efforts to reduce water loss and municipal use of water. In doing so, the District has identified the following goals for water savings:

- A. Five-year Target: Within five (5) years of the date hereof, the District shall attempt to reduce the average daily municipal use of water in the District's service area by 10 gpd per connection and to keep the unaccounted water in the system below 12% annually.
- B. Ten-year Target: Within ten (10) years of the date hereof, the District shall attempt to reduce the average daily municipal use of water in the District's service area by 40 gpd per connection and to keep the unaccounted water in the system below 12% annually.

Notwithstanding the targets identified above, the District shall not be obligated to achieve any water savings in its service area, and the District's failure to do so shall not subject the District to any liability whatsoever.

Section 5. Metering Devices. The District will meter all water delivered by the District, and all such metering devices will be calibrated regularly to ensure reasonable accuracy.

Section 6. Unaccounted Water Usage. The District authorizes the District's operator to implement any reasonable program to determine unaccounted-for uses of water and to make recommendations to the District regarding measures to control such unaccounted-for uses of water. Such measures may include periodic visual inspections along distribution lines, annual or monthly audits of the water system to determine illegal connection, and investigation of abandoned services. The District's operator shall also establish a program of leak detection, repair, and water loss accounting for the water storage, delivery, and distribution system in order to control unaccounted-for uses of water.

Section 7. Continuing Public Education and Information. The District hereby institutes an educational program, to be implemented immediately, to promote the Plan by the general public which may include any of the following:

- A. Publications of articles in a newspaper or newsletter of general circulation in the District's service area, providing information regarding water conservation; and
- B. Direct distributions to all customers of the District of educational and informational material regarding water conservation; and
- C. Additional educational activities consisting of (i) conducting an informational school program in a school attended by students within the District's service area, or (ii) conducting an educational program for Users at a public place within or accessible to residents within the service area of the District, or (iii) conducting or engaging in such other informational or educational activity designed to further water conservation measures as, in the discretion of the Board of Directors, may be consistent with the purposes and policies of this Plan, or (iv) any combination of the foregoing.

Section 8. Cost-based Rate Structure. The District hereby acknowledges that it has adopted an increasing block water rate structure, as reflected in its Rate Order, that is intended to encourage water conservation and discourage excessive use and waste of water.

Section 9. Reservoir Systems Operations Plan. The District does not own any reservoirs within a common watershed or river basin and is not required to establish a reservoir systems operation plan.

Section 10. Implementation and Enforcement. Without limitation to specific actions stated in this Plan to be taken by the District's operator, the District's operator will administer and enforce this Plan, and will oversee and be responsible for the execution and implementation of all elements of this Plan. The operator shall keep adequate records for Plan verification. The District's operator shall report to the Board of the District, at meetings of the Board, regarding actions taken and which need to be taken under this Plan.

Section 11. Record Management. The District authorizes the District's operator to establish a record management system to record water pumped, water delivery, water sales, and water losses, and which allows for the desegregation of water sales and uses into residential, commercial, public and institutional, and industrial user classes.

Section 12. Wholesale Water Customers. The District shall require that each successive wholesale customer develop and implement a water conservation plan or water conservation measures in compliance with all applicable rules of the Texas Commission on Environmental Quality. This requirement will also extend to each successive wholesale customer in the resale of water.

Section 13. Five-year Review. The District shall review and update the Plan every five years, or more frequently, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information.

PASSED AND APPROVED this 28th day of January, 2008.

/s/ Randal W. Ward  
Assistant Vice President, Board of Directors

ATTEST:

/s/ Irene Gregory  
Secretary, Board of Directors

(SEAL)

Appendix "A"  
Utility Profile

I. POPULATION AND CUSTOMER DATA

A. Population and Service Area Data

1. Service area size (square miles): 1.2779 sq miles
2. Current population of service area: 10,416
3. Current population served:
  - a. water 10,416
  - b. wastewater 10,416

<p>4. Population served by water utility for the previous five years:</p> <table style="width: 100%; margin-left: 40px;"> <thead> <tr> <th style="text-align: left;">Year</th> <th style="text-align: right;">Population</th> </tr> </thead> <tbody> <tr><td style="text-align: center;"><u>2007</u></td><td style="text-align: right;"><u>10,416</u></td></tr> <tr><td style="text-align: center;"><u>2006</u></td><td style="text-align: right;"><u>10,314</u></td></tr> <tr><td style="text-align: center;"><u>2005</u></td><td style="text-align: right;"><u>10,356</u></td></tr> <tr><td style="text-align: center;"><u>2004</u></td><td style="text-align: right;"><u>10,119</u></td></tr> <tr><td style="text-align: center;"><u>2003</u></td><td style="text-align: right;"><u>10,041</u></td></tr> </tbody> </table>	Year	Population	<u>2007</u>	<u>10,416</u>	<u>2006</u>	<u>10,314</u>	<u>2005</u>	<u>10,356</u>	<u>2004</u>	<u>10,119</u>	<u>2003</u>	<u>10,041</u>	<p>6. Projected population for service area in the following decades:</p> <table style="width: 100%; margin-left: 40px;"> <thead> <tr> <th style="text-align: left;">Year</th> <th style="text-align: right;">Population</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">2010</td><td style="text-align: right;"><u>10,686</u></td></tr> <tr><td style="text-align: center;">2020</td><td style="text-align: right;"><u>10,686</u></td></tr> <tr><td style="text-align: center;">2030</td><td style="text-align: right;"><u>10,686</u></td></tr> <tr><td style="text-align: center;">2040</td><td style="text-align: right;"><u>10,686</u></td></tr> <tr><td style="text-align: center;">2050</td><td style="text-align: right;"><u>10,686</u></td></tr> </tbody> </table>	Year	Population	2010	<u>10,686</u>	2020	<u>10,686</u>	2030	<u>10,686</u>	2040	<u>10,686</u>	2050	<u>10,686</u>
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5. List source/method for the calculation of current and projected population:

[(Residential) + (inactive) + (Builder) + (Commercial) + (Multi-family)] × 3 = total population using December reports for each year. December 2007 [(2790) + (123) + (4) + (195) + (360)] × 3 = 10,416.

Commercial = (1,950,000 total consumption ÷ 10,000) = 195 connections

Multi-Family = (504 total units × 0.714 ESFC/Unit) = 360 connection

The District is built-out for residential properties. It is estimated that all residential connections currently within the District boundaries will be filled by 2009. At this time, the District does not plan any further annexations.

B. Active Connections

1. Current number of active connections. Check whether multi-family service is counted as Residential \_\_\_\_ or Commercial \_\_\_\_ or Separate  \_\_\_\_\_

Treated water users:	Metered	Not-metered	Total
Residential	2790	—	2790
Commercial	33	—	33
Industrial	—	—	—
Multi-Family	17(504 units)	—	17(504 units)

2. List the net number of new connections per year for most recent three years:

Year	2007	2006	2005
Residential	—	17	34
Commercial	1	3	—
Industrial	—	—	—
Other	—	—	—

C. High Volume Customers

List annual water use for the five highest volume customers (indicate if treated or raw water delivery)

	Customer	Use (1,000 gal/yr.)	Treated/Raw Water
(1)	0-3750	23,943	Treated
(2)	0-3420	8,815	Treated
(3)	0-3410	5,764	Treated
(4)	0-3670	5,478	Treated
(5)	0-3430	3,673	Treated

## II. WATER USE DATA FOR SERVICE AREA

### A. Water Accounting Data

#### 1. Amount of water use for previous five years (in 1,000 gal.):

Please indicate:      Diverted Water      2,082,614  
    Treated Water                      395

Year	2007	2006	2005	2004	2003
January	29,355	28,932	26,318	27,003	27,753
February	27,759	25,011	28,755	26,084	24,371
March	33,610	40,605	32,500	28,941	30,600
April	31,268	49,979	34,043	29,776	35,044
May	30,861	53,496	40,729	35,031	53,756
June	31,897	54,607	49,029	32,040	42,282
July	27,823	50,949	42,698	38,367	40,678
August	34,047	42,359	39,939	42,946	41,901
September	33,314	39,331	42,311	42,544	33,080
October	31,278	31,944	44,555	31,830	33,652
November	28,593	29,584	30,937	28,243	29,826
December	26,928	28,086	28,207	26,947	28,263
Total	366,733	474,885	440,027	389,757	411,211

Indicate how the above figures were determined (e.g., from a master meter located at the point of a diversion from the source or located at a point where raw water enters the treatment plant, or from water sales).

Master Meter located at the point of a diversion from the source

#### 2. Amount of water (in 1,000 gallons) delivered (sold) as recorded by the following account types for the past five years.

Year	Residential	Commercial	Multi-Family	Irrigation	Builder/Misc	Total Sold
2004	272,977	26,092	36,820	13,868	365	350,022
2005	300,530	27,100	40,178	20,162	1,378	389,348
2006	221,281	22,790	35,515	16,165	823	296,574
2007	256,791	23,957	44,540	13,473	489	339,250

3. List previous five years records for water loss (the difference between water diverted (or treated) and water delivered (or sold))

Year	Amount (gal)	%
2007	20,290	94.4%
2006	35,084	92.7%
2005	38,877	91.0%
2004	30,491	92.0%
2003	31,356	92.5%

4. Municipal water use for previous five years:

Year	Population	Total Water Diverted or Pumped for Treatment (1,000 gal.)
2007	10,416	339,250
2006	10,314	296,574
2005	10,356	389,348
2004	10,119	389,757
2003	10,041	419,984

B. Projected Water Demands

If applicable, attach projected water supply demands for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirement from such growth.

III. WATER SUPPLY SYSTEM DATA

A. Water Supply Sources

List all current water supply sources and the amounts authorized with each:

	Source Amount	Authorized
Surface Water:	WHCRWA	6.0 mg/month
Groundwater:	HGCSD	475 mg/year
Contracts:		
Other:		

B. Treatment and Distribution System

1. Design daily capacity of system: 3.99 MGD
2. Storage Capacity: Elevated .500 MGD, Ground .630 MGD
3. If surface water, do you recycle filter backwash to the head of the plant?  
Yes \_\_\_ No . If yes, approximately \_\_\_\_\_ MGD.
4. Please attach a description of the water system. Include the number of treatment plants, wells, and storage tanks. If possible, include a sketch of the system layout.

IV. WASTEWATER SYSTEM DATA

A. Wastewater System Data

1. Design capacity of wastewater treatment plant(s): 1.3 MGD
2. Is treated effluent used for irrigation on-site No off-site No plant washdown Yes or chlorination/dechlorination Yes?  
If yes, approximately 800,000 gallons per month.
3. Briefly describe the wastewater system(s) of the area serviced by the water utility. Describe how treated wastewater is disposed of. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and, if wastewater is discharged, the receiving stream. If possible, attach a sketch or map which locates the plant(s) and discharge points or disposal sites.

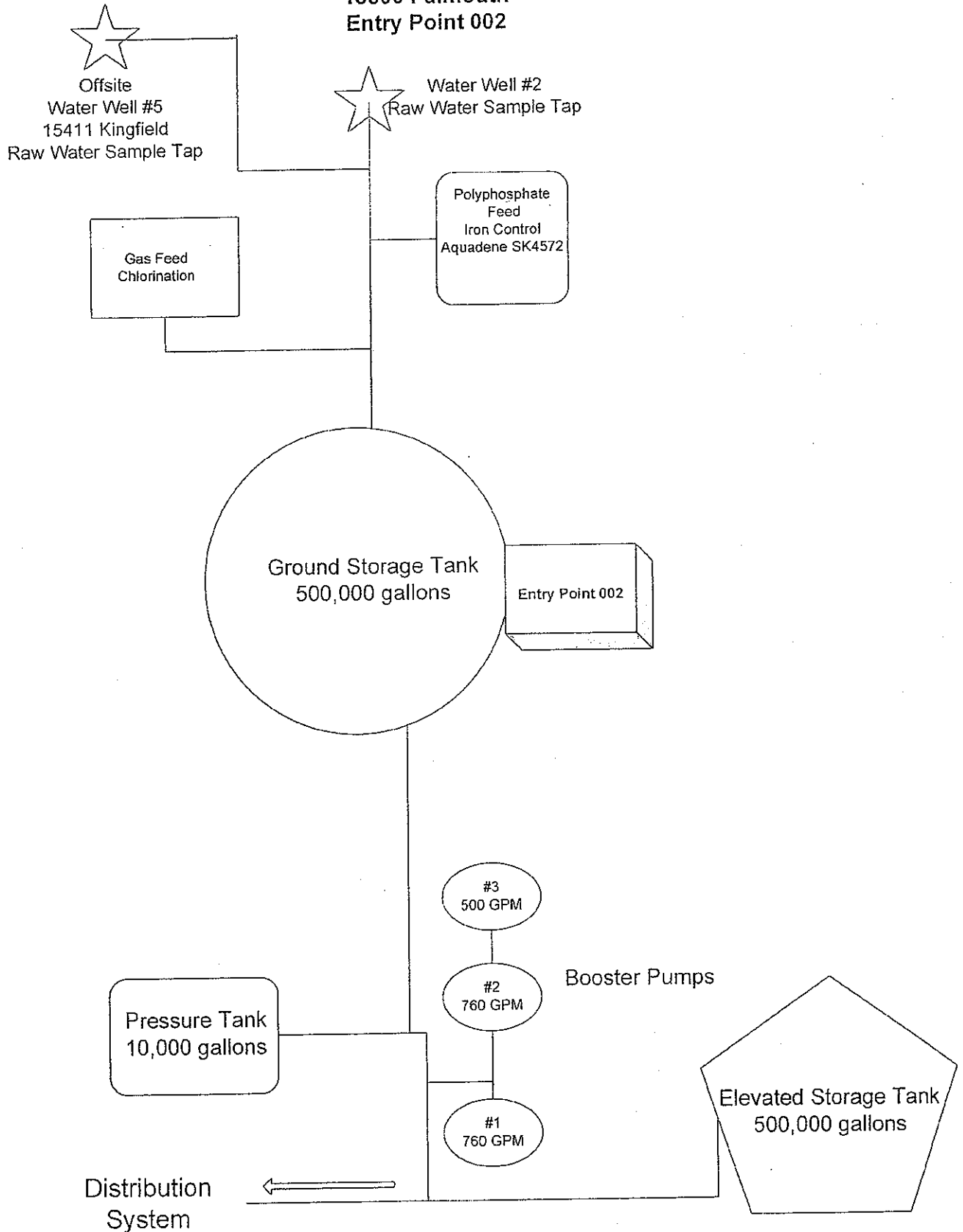
B. Wastewater Data for Service Area

1. Percent of water service area served by wastewater system: 100%
2. Monthly volume treated for previous three years (in 1,000 gallons):

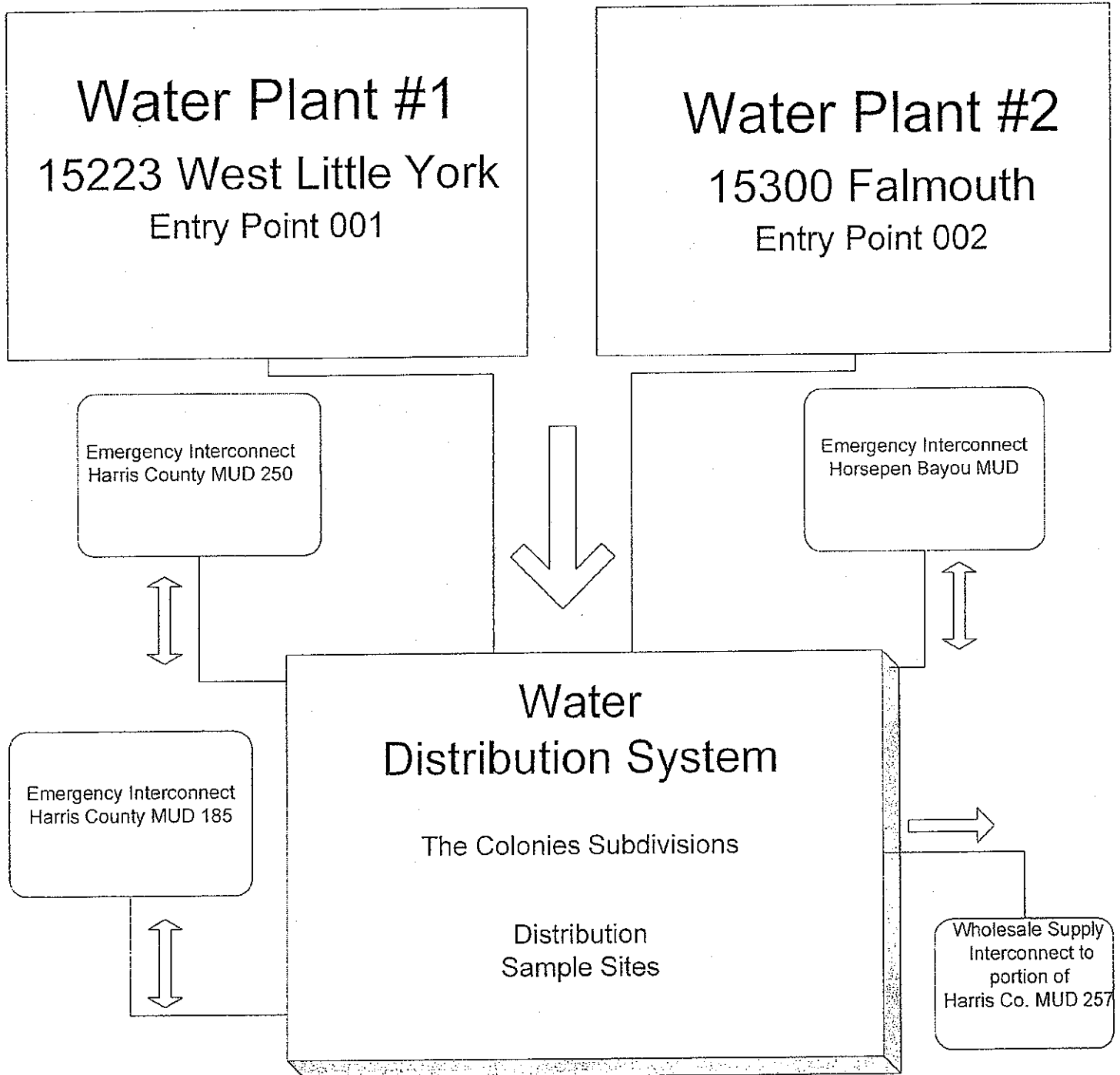
Year	2007	2006	2005
January	24,707	23,064	23,343
February	21,000	20,692	22,428
March	23,498	21,886	23,002
April	22,440	22,080	22,020
May	24,118	23,312	22,909
June	24,000	22,530	21,360
July	24,924	25,234	23,436
August	23,684	24,300	23,580
September	22,110	24,831	23,684
October	23,560	25,048	21,450
November	22,170	22,590	22,599
December	22,258	23,281	23,467
Total	278,469	278,848	273,278

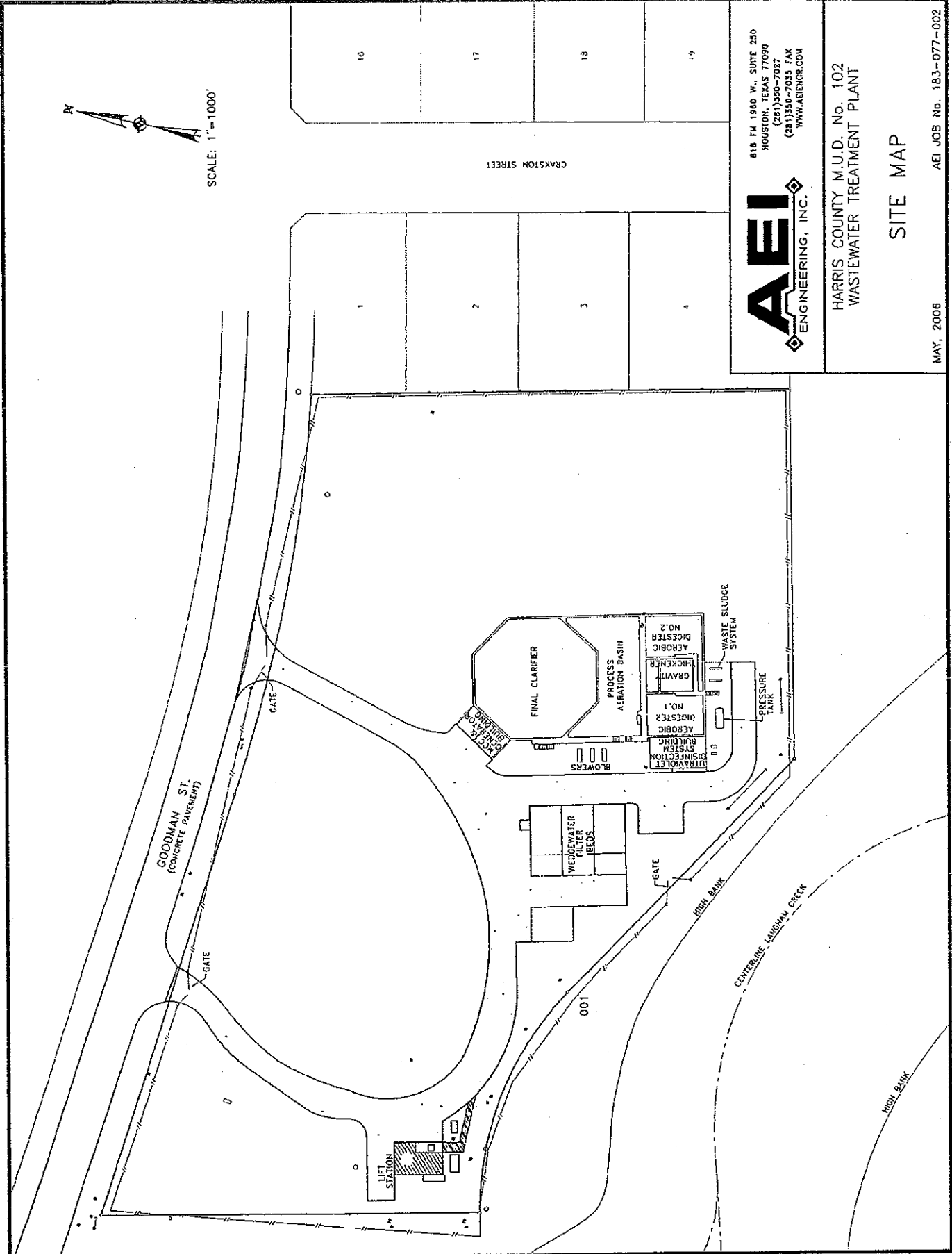
Attachment 1

Harris County MUD No. 102 Water System  
PWS ID#1010503  
Harris County, Texas  
Water Plant #2  
15300 Falmouth  
Entry Point 002



Harris County MUD No. 102 Water System  
PWS ID#1010503  
Harris County, Texas





SCALE: 1"=1000'



816 FM 1960 W., SUITE 250  
 HOUSTON, TEXAS 77090  
 (281)350-7027  
 (281)350-7033 FAX  
 WWW.AEINCR.COM



HARRIS COUNTY M.U.D. No. 102  
 WASTEWATER TREATMENT PLANT

# SITE MAP

MAY, 2006

AEI JOB No. 183-077-002