



City of Beaumont

2019 Water Conservation and Drought Contingency Plan

Prepared by:

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Water Utilities Designer III

Approved by:

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Public Works Director

Public Works Department- Water Utilities
1350 Langham Rd.
Beaumont, TX 77707
(409) 866-0026

May 1, 2019



Texas Commission on Environmental Quality

Water Availability Division

MC-160, P.O. Box 13087 Austin, Texas 78711-3087

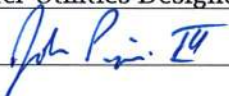
Telephone (512) 239-4691, FAX (512) 239-2214

Utility Profile and Water Conservation Plan Requirements for Municipal Water Use by Retail Public Water Suppliers

This form is provided to assist retail public water suppliers in water conservation plan assistance in completing this form or in developing your plan, please contact the Conservation staff of the Resource Protection Team in the Water Availability Division at (512) 239-4691.

Water users can find best management practices (BMPs) at the Texas Water Development Board's website <http://www.twdb.texas.gov/conservation/BMPs/index.asp>. The practices are broken out into sectors such as Agriculture, Commercial and Institutional, Industrial, Municipal and Wholesale. BMPs are voluntary measures that water users use to develop the required components of Title 30, Texas Administrative Code, Chapter 288. BMPs can also be implemented in addition to the rule requirements to achieve water conservation goals.

Contact Information

Name of Water Supplier:	<u>City of Beaumont</u>	
Address:	<u>1350 Langham Rd Beaumont, TX 77707</u>	
Telephone Number:	<u>(409) 866-0026</u>	Fax: <u>(409) 861-4836</u>
Water Right No.(s):	<u>4415 B6, 4480 B7, 3805 B7 CN600130439</u>	
Regional Water Planning Group:	<u>Region I Planning Group</u>	
Water Conservation Coordinator (or person responsible for implementing conservation program):	<u>John Pippins III, EIT</u>	Phone: <u>(409) 785-4702</u>
Form Completed by:	<u>John Pippins III, EIT</u>	
Title:	<u>Water Utilities Designer III</u>	
Signature:	<u></u>	Date: <u>5/1/19</u>

A water conservation plan for municipal use by retail public water suppliers must include the following requirements (as detailed in 30 TAC Section 288.2). If the plan does not provide information for each requirement, you must include in the plan an explanation of why the requirement is not applicable.

Utility Profile

I. POPULATION AND CUSTOMER DATA

A. *Population and Service Area Data*

1. Attach a copy of your service-area map and, if applicable, a copy of your Certificate of Convenience and Necessity (CCN).
2. Service area size (in square miles): 83
(Please attach a copy of service-area map)
3. Current population of service area: 131,846
4. Current population served for:
 - a. Water 131,846
 - b. Wastewater 131,846

5. Population served for previous five years:

<i>Year</i>	<i>Population</i>
2014	127,191*
2015	129,688*
2016	131,849
2017	132,581
2018	131,846

6. Projected population for service area in the following decades:

<i>Year</i>	<i>Population</i>
2020	143,531
2030	156,562
2040	177,395
2050	190,248
2060	212,820

7. List source or method for the calculation of current and projected population size.

World Population Review for current population size in addition to wholesale customers outside of city limits. Previous Water Loss Audits were used for gaining wholesale population data. The 2021 Regional Water Plan- Population Projections for 2020-2070 was used for projected population in addition to wholesale customers with an approximate 3% growth rate.

* The wholesale customer population for 2014 and 2015 was estimated by averaging 2013 and 2016 data.

B. Customer Data

Senate Bill 181 requires that uniform consistent methodologies for calculating water use and conservation be developed and available to retail water providers and certain other water use sectors as a guide for preparation of water use reports, water conservation plans, and reports on water conservation efforts. A water system must provide the most detailed level of customer and water use data available to it, however, any new billing system purchased must be capable of reporting data for each of the sectors listed below. More guidance can be found at: <http://www.twdb.texas.gov/conservation/doc/SB181Guidance.pdf>

1. Quantified 5-year and 10-year goals for water savings:

	<i>Historic 5-year Average</i>	<i>Baseline</i>	<i>5-year goal for year 2024</i>	<i>10-year goal for year 2029</i>
Total GPCD	166.5	166.5	156.27	146.67
Residential GPCD	59.9	59.9	56.96	54.17
Water Loss GPCD	44	44	32.04	23.27
Water Loss Percentage	26.5	26.5	20.51	15.87

Notes:

Total GPCD = (Total Gallons in System ÷ Permanent Population) ÷ 365

Residential GPCD = (Gallons Used for Residential Use ÷ Residential Population) ÷ 365

Water Loss GPCD = (Total Water Loss ÷ Permanent Population) ÷ 365

Water Loss Percentage = (Total Water Loss ÷ Total Gallons in System) x 100; or (Water Loss GPCD ÷ Total GPCD) x 100

2. Current number of active connections. Check whether multi-family service is counted as
☒ Residential or ☐ Commercial?

<i>Treated Water Users</i>	<i>Metered</i>	<i>Non-Metered</i>	<i>Totals</i>
Residential	47,844	0	47,844
Single-Family	34,332	0	34,332
Multi-Family	13,512	0	13,512
Commercial	3,998	0	3,998
Industrial/Mining	21	0	21
Institutional	129	0	129
Agriculture	795	0	795
Other/Wholesale	4,147	0	4,147

3. List the number of new connections per year for most recent three years.

<i>Year</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>
<i>Treated Water Users</i>			
Residential	20,114	-2,319	-5,594
Single-Family	6,238	-3,046	-4,503
Multi-Family	13,876	727	-1,091
Commercial	595	385	-1,565
Industrial/Mining	0	5	-5
Institutional	0	399	-270
Agriculture	0	2,545	-1,750
Other/Wholesale	4	4,641	-498

- List of annual water use for the five highest volume customers.

<i>Customer</i>	<i>Use (1,000 gal/year)</i>	<i>Treated or Raw Water</i>
Texas Department of Criminal Justice	296,619	Treated
Federal Prison Complex	207,615	Treated
Chemtrade Refining	79,135	Treated
Martin Resources	63,187	Treated
Mobil Refinery	46,081	Treated

II. WATER USE DATA FOR SERVICE AREA

A. Water Accounting Data

- List the amount of water use for the previous five years (in 1,000 gallons).

Indicate whether this is ☐ diverted or ☒ treated water.

<i>Year</i>	2014	2015	2016	2017	2018
<i>Month</i>					
January	798,587	678,671	653,290	620,618	787,408
February	702,337	582,937	613,692	570,884	583,216
March	736,782	637,686	641,562	606,004	641,459
April	704,930	620,965	606,320	598,966	611,087
May	754,749	648,345	631,653	635,273	679,721
June	748,457	666,456	678,713	612,201	667,895
July	756,830	769,843	735,148	643,539	701,578
August	809,275	863,706	689,116	613,532	750,326
September	755,848	803,971	660,435	636,199	641,875
October	725,918	738,165	714,113	669,678	642,347
November	666,394	656,963	669,883	669,362	643,270
December	672,642	655,381	621,852	674,041	647,170
Totals	8,832,748	8,323,090	7,915,777	7,550,299	7,997,351

- Describe 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).

The above figures were determined from master meters located where treated water leaves the treatment plant and the groundwater facility.

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

<i>Year</i>	2014	2015	2016	2017	2018
<i>Account Types</i>					
Residential			2,890,151.9	2,739,749.8	2,742,306.8
Single-Family			2,249,656	2,107,827.1	2,109,509.2
Multi-Family			640,495.9	631,922.7	632,797.6
Commercial			1,662,070.4	1,144,193	1,164,379.9
Industrial/Mining			285,865.5	237,275.3	339,427.3
Institutional			0	90,878.5	98,428.8
Agriculture			0	268,930.6	236,419.3
Other/Wholesale			463,476.4	617,928.1	544,505.3

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

<i>Year</i>	<i>Amount (gallons)</i>	<i>Percent %</i>
2014		
2015	2,035,831,584	27.91
2016	1,770,076,194	25.44
2017	1,545,839,322	23.31
2018	2,106,487,396	29.23

B. Projected Water Demands

1. If applicable, attach or cite projected water supply demands from the applicable Regional Water Planning Group for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirements from such growth.

Please refer to Appendix C for projected water supply demands from Regional Water Planning Group I for the next fifty years.

III. WATER SUPPLY SYSTEM DATA

A. Water Supply Sources

1. List all current water supply sources and the amounts authorized (in acre feet) with each.

<i>Water Type</i>	<i>Source</i>	<i>Amount Authorized</i>
Surface Water	Neches River	56,468.0
Groundwater	Chicot Aquifer	5,645.5
Other		

B. Treatment and Distribution System (if providing treated water)

1. Design daily capacity of system (MGD): 56
2. Storage capacity (MG):
 - a. Elevated 6.8
 - b. Ground 17.67
3. If surface water, do you recycle filter backwash to the head of the plant?

☒ Yes ☐ No If yes, approximate amount (MGD): 0.2

IV. WASTEWATER SYSTEM DATA

A. Wastewater System Data (if applicable)

1. Design capacity of wastewater treatment plant(s) (MGD): 31.9 MGD at Outfall 120 and 46 MGD at Outfall 001
2. Treated effluent is used for ☐ on-site irrigation, ☐ off-site irrigation, for ☐ plant wash-down, and/or for ☐ chlorination/dechlorination.

If yes, approximate amount (in gallons per month): N/A

3. Briefly describe the wastewater system(s) of the area serviced by the water utility. Describe how treated wastewater is disposed. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and the receiving stream if wastewater is discharged.

The wastewater system currently consists of over 776 miles of sewer pipe ranging from 4 inches to 72 inches in diameter and 9,587 manholes. There are five major pipeline interceptors and 76 lift stations assisting in transporting flow to the wastewater treatment plant. The wastewater treatment plant is the Hillebrandt Bayou Wastewater Treatment Plant, TPDES Permit No. 10501020 and is owned and operated by the City of Beaumont. The treated wastewater is discharged to the Hillebrandt Bayou in segment 0704 of the Neches-Trinity Coastal River Basin.

B. Wastewater Data for Service Area (if applicable)

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

<i>Year</i>	2014	2015	2016	2017	2018
<i>Month</i>					
January	252,650	881,330	729,740	853,430	756,400
February	708,120	450,800	511,270	473,760	915,880
March	782,130	916,050	756,710	645,730	644,180
April	405,300	789,600	813,600	553,500	582,300
May	430,280	867,070	927,210	394,010	392,460
June	490,200	720,900	1,030,200	757,500	872,100
July	696,570	469,340	523,280	775,000	660,610
August	462,520	494,140	985,800	948,600	441,750
September	567,900	594,000	459,600	1,352,400	983,400
October	518,010	739,350	261,950	622,170	804,760
November	615,900	975,000	350,700	429,300	826,500
December	680,760	741,830	684,790	522,660	884,120
Totals	6,610,340	8,639,410	8,034,850	8,328,060	8,764,460

Record Management System

The City manages records of water sales through the Water Customer Service group which uses CentralSquare Technologies. CentralSquare Technologies separates water sales into different classes including Residential, Multi-family, Commercial, Industrial, and Agriculture (Irrigation). Water Utilities also maintains records of wholesale customers. Lucity is the record management system the City uses to track work orders and maintenance requests. The City recently purchased Cityworks software to replace Lucity as its record management system, and expects it to be implemented in the near future.

Five and Ten Year Targets

For this Water Conservation Plan, the City chose to use the historic averages as the baselines. The historic average for total gallons per capita per day (GPCD), water loss GPCD, and water loss percentage encompasses water usage from CY 2015 through CY 2018, because no Water Loss Audit was submitted for CY 2014. The historic average for the residential GPCD encompassed water usage from CY 2016 through CY 2018 because the Water Use Survey was inadequate CY 2014 and CY 2015.

The goals set in this Conservation Plan reflect reducing the total water use, measured as gallons per capita per day (GPCD), by 1.26% annually.

The City plans to further implement leak detection and improve leak repairs in order to reduce water loss percentage by 5.00% annually to reach the goals set below.

The City's goal for reducing water loss GPCD was based on the water loss percentage and total GPCD goals.

	<i>Historic Averages</i>	<i>Baseline</i>	<i>5-year goal for year 2024</i>	<i>10-year goal for year 2029</i>
Total GPCD	166.5	166.5	156.27	146.67
Residential GPCD	59.9	56.96	55.06	54.17
Water Loss GPCD	44	44	32.04	23.27
Water Loss Percentage	26.5	26.5	20.51	15.87

Diversion Metering

The City meters raw water to the surface water plant, treated water leaving the plant, each ground water well, and the high service pumps from the ground water storage facilities. Each meter is annually calibrated and remains within its specified accuracy. Refer to Appendix D for 2018 records of calibration on all diversion and discharge meters.

Universal Metering

The City's Water Utilities maintains the water meters throughout the distribution system. The City uses Neptune meters (Refer to Appendix E for product information). All 5/8" through 1-1/2" meters are tested before installation. Meters are tested based on requests or if notified by the metering software. Repairs are made if a meter is broken or fails to meet 90% accuracy during testing. Contractors are required to use caged meters to monitor water use from hydrants during construction activities.

Determining and Controlling Water Loss

Water loss can occur from several sources:

- Inaccuracies in customer meters
- Error in firefighting and flushing estimates
- Water Main breaks and leaks in the distribution system
- Illegal connections and theft
- Other

Maintenance and Operations crews should look for and report evidence of leaks in the distribution system. Meter readers should look for signs of illegal connections, so they can be investigated. Leaks can be reported by customers through the City's 311 call system. The City has invested in leak detection software and the maintenance and customer service divisions are able to use this guidance when tracking down leaks.

Continuing Public Education and Information

The City inserts water conservation information with the annual water quality report. The City plans to make information on water conservation available on its website and include links to TCEQ, TWDB, and EPA sites as resources.

Water Rate Structure

The City uses a non-promotional rate structure based on meter size. Refer to Appendix F for a comprehensive breakdown of the City's water rates as posted in the City Ordinance.

Reservoir Systems Operations Plan

The City of Beaumont does not own or operate reservoir systems.

Enforcement Procedure and Plan Adoption

The 2019 Water Conservation Plan is expected to be reviewed by City Council on April 30, 2019. Once approved, a copy of the resolution granting approval will be attached under Appendix H.

Coordination with the Regional Water Planning Group

The City of Beaumont is located within the Region I Planning Group. The City of Beaumont will provide a copy of this Water Conservation Plan to the Region I Planning Group once it has been approved.

Plan Review and Update

The City of Beaumont reviews its conservation programs and goals on an annual basis and submits an Annual Conservation Report to update regulatory agencies. The Water Conservation Plan and Water Conservation Implementation Report is reviewed and updated every five years according to TCEQ requirements under Title 30 Texas Administrative Code (TAC) §288.30. The next Water Conservation Plan is expected by May 1, 2024.

Drought Contingency Plan

A copy of the Drought Contingency Plan as declared in Article 22.06 of the City Ordinance is attached under Appendix G. There are no revisions to the Drought Contingency Plan at this time.

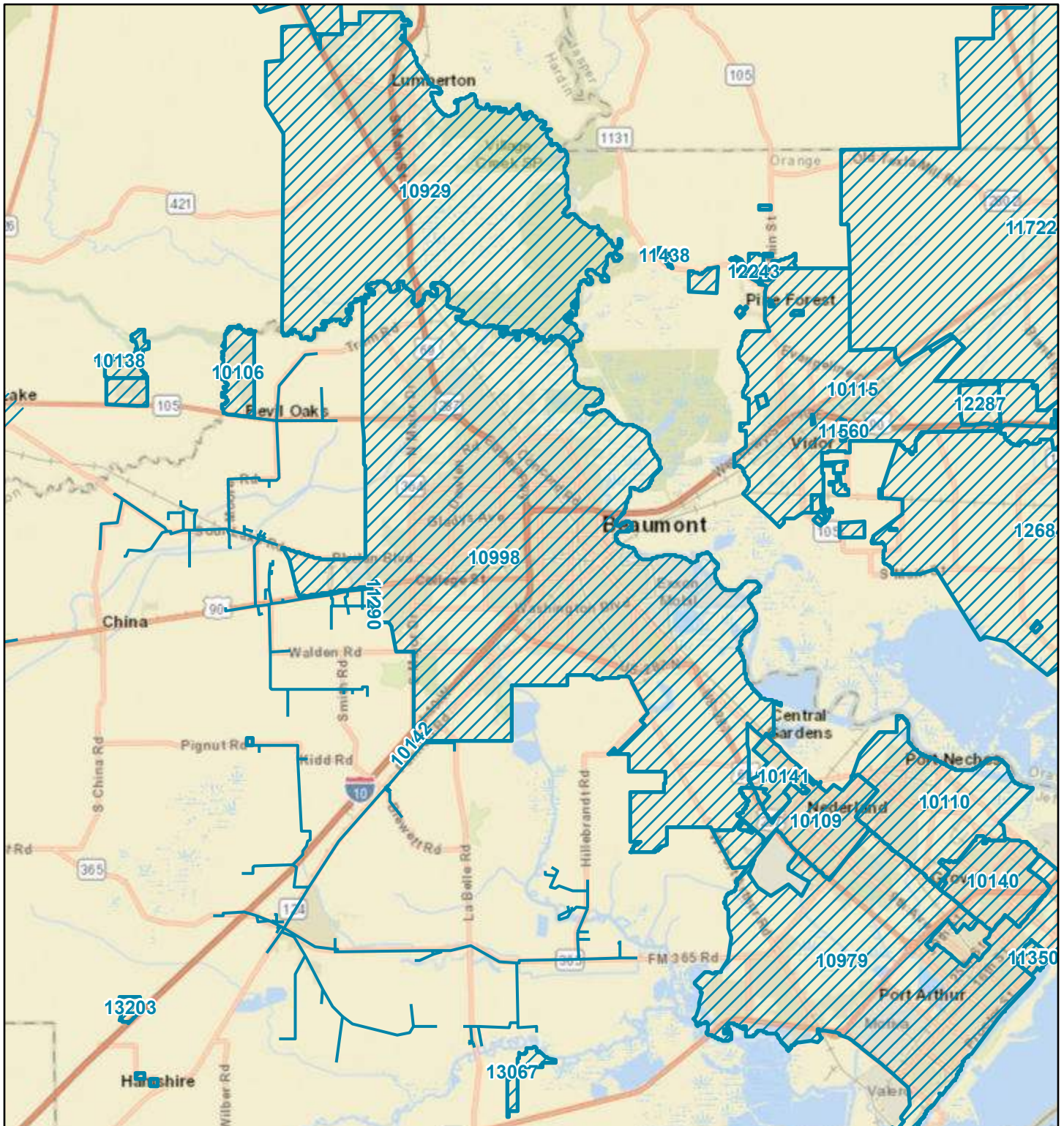
Wholesale Water Supply Contract Changes, per TCEQ

Each wholesale water supply contract entered into or renewed after the adoption of this plan will require wholesale customers to develop and implement a water conservation plan or water conservation measures using the applicable elements from the TCEQ. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.

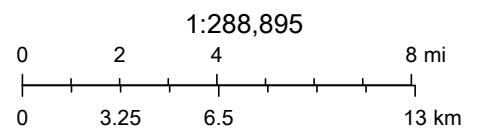
Appendix A

Certificates of Convenience and Necessity / Service Area Maps

Public Utility Commission

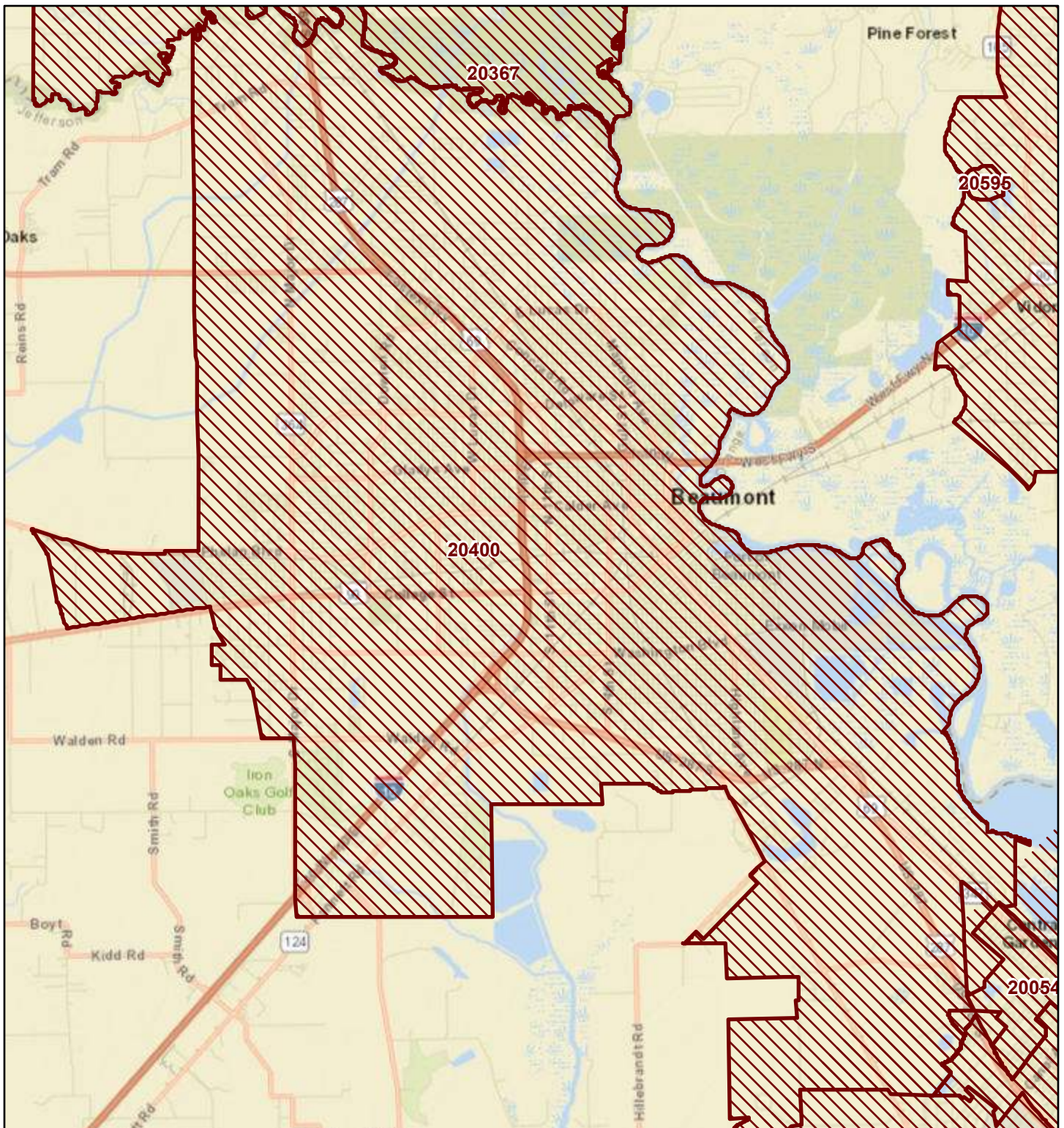


April 10, 2019

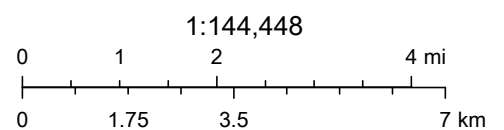


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Public Utility Commission



April 16, 2019



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Appendix B

Certificates of Convenience and Necessity

Public Utility Commission of Texas

By These Presents Be It Known To All That

CITY OF BEAUMONT

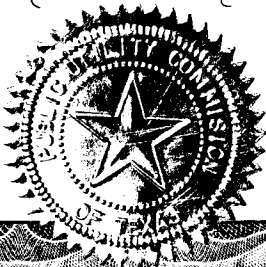
having duly applied for certification to provide water utility service for the convenience and necessity of the public, and it having been determined by this Commission that the public convenience and necessity would in fact be advanced by the provision of such service by this Applicant, is entitled to and is hereby granted this

Certificate of Convenience and Necessity

numbered 10998 , to provide water utility service to that service area or those service areas designated by final Order or Orders duly entered by this Commission, which Order or Orders are on file at the Commission offices in Austin, Texas; and are matters of official record available for public inspection;

and be it known further that these presents do evidence the authority and the duty of this Grantee to provide such utility service in accordance with the laws of this State and the Rules of this Commission, subject only to any power and responsibility of this Commission to revoke or amend this Certificate in whole or in part upon a subsequent showing that the public convenience and necessity would be better served thereby.

Issued at Austin, Texas, this 1st day of November, 1979.



Philip F. Ricketts

Philip F. Ricketts
SECRETARY OF THE COMMISSION





Texas Commission On Environmental Quality

By These Presents Be It Known To All That

The City of Beaumont

having duly applied for certification to provide sewer utility service for the convenience and necessity of the public, and it having been determined by this commission that the public convenience and necessity would in fact be advanced by the provision of such service by this Applicant, is entitled to and is hereby granted this

Certificate of Convenience and Necessity No. 20400

to provide continuous and adequate sewer utility service to that service area or those service areas in Jefferson County as by final Order or Orders duly entered by this Commission, which Order or Orders resulting from Application No. 34133-C are on file at the Commission offices in Austin, Texas; and are matters of official record available for public inspection; and be it known further that these presents do evidence the authority and the duty of The City of Beaumont to provide such utility service in accordance with the laws of this State and Rules of this Commission, subject only to any power and responsibility of this Commission to revoke or amend this Certificate in whole or in part upon a subsequent showing that the public convenience and necessity would be better served thereby.

Issued at Austin, Texas, this _____

MAY 17 2005

A handwritten signature in dark ink, appearing to read "Michael D. Plaw".
For the Commission

RECEIVED
MAY 26 2005
TEXAS COMMISSION
ON
ENVIRONMENTAL QUALITY

ENTERED BY 05/31/05
LS

Appendix C

Regional Water Planning Group I Projected Water Supply Demands

Table 2.4 Historical Water Use and Projected Municipal Water Demand in the East Texas Regional Water Planning Area by County (ac-ft/yr) (Cont.)

County/Water User Group	Water Use^a	Projections					
Houston County	2010	2020	2030	2040	2050	2060	2070
County-Other ^d	178	184	172	170	169	169	169
Crockett	1,178	1,281	1,253	1,226	1,211	1,209	1,209
Grapeland	230	211	206	200	197	196	196
Lovelady	84	131	130	128	127	126	126
The Consolidated WSC ^{bc}	1,380	1,567	1,520	1,475	1,450	1,445	1,445
<i>Houston County Total</i>	<i>3,050</i>	<i>3,374</i>	<i>3,281</i>	<i>3,199</i>	<i>3,154</i>	<i>3,145</i>	<i>3,145</i>
Jasper County	2010	2020	2030	2040	2050	2060	2070
County-Other ^d	2,815	2,467	2,422	2,354	2,311	2,302	2,302
Jasper	1,454	1,699	1,699	1,676	1,660	1,657	1,657
Jasper County WCID No. 1	233	224	212	207	207	207	207
Kirbyville	388	402	401	395	390	390	390
Mauriceville SUD ^c	27	30	30	30	30	30	30
<i>Jasper County Total</i>	<i>4,917</i>	<i>4,822</i>	<i>4,764</i>	<i>4,662</i>	<i>4,598</i>	<i>4,586</i>	<i>4,586</i>
Jefferson County	2010	2020	2030	2040	2050	2060	2070
Beaumont	26,608	29,689	30,963	32,423	34,398	36,805	39,548
Bevil Oaks	128	135	137	139	147	157	169
China	124	143	146	150	158	168	181
County-Other ^d	1,880	2,560	3,246	4,093	5,107	6,251	7,537
Groves	2,047	2,238	2,160	2,094	2,069	2,063	2,063
Jefferson County WCID No. 10	488	448	453	463	485	517	555
Meeker MUD	342	431	445	462	488	522	560
Nederland	2,382	2,404	2,464	2,546	2,682	2,865	3,077
Nome ^d	127	75	77	80	84	90	96
Port Arthur ^c	13,470	19,805	19,775	19,548	19,501	19,482	19,481
Port Neches	1,614	1,428	1,447	1,481	1,553	1,658	1,780
West Jefferson County MWD	669	741	752	772	809	863	927
<i>Jefferson County Total</i>	<i>49,879</i>	<i>60,097</i>	<i>62,065</i>	<i>64,251</i>	<i>67,481</i>	<i>71,441</i>	<i>75,974</i>

Appendix D

2018 Diversion and Discharge Meter Calibration Records

Mud Instruments

1210 Harper Rd, Kerrville Texas 78028

(281) 421-1864

Certificate Of Calibration

Owner: City Of Beaumont
Location: Pine Street Water Plant
Application: City Flow / High Service

Certificate No: 11021801

We certify that the following instrument(s) is/are in good working order and conform to the Manufacturers specified accuracy. All workmanship and Materials are guaranteed to be of the highest standards and in accordance with the manufacturers guidelines.

Measuring Element: Magnetic Flow Meter
Flowmeter:

Manufacturer: Rosemount

Model Number: 8750WA

Range: 50 MGD

Variance Found: < 1%

Serial No: 175607

Specified Accuracy: 1%

Zero Distance: N/A

Tube Information:

Manufacturer: Rosemount

Model Number: 8750WA32ESR1A1FPSA360CAANADA1DA2M4Q4G5

Size: 36 Inch

Software Revision: 5.2.2

Variance Found: < 1%

Liner Material: Polyurethane

Calibration Data: Instrument was Calibrated as per the Manufactures recommendations and verified by on board Diagnostics

Comments: Passed .03% from Original Calibration

Date of Calibration: November, 2 2018

Technician: Vernon Hagan

Mud Instruments

1210 Harper Rd, Kerrville Texas 78028
(281) 421-1864

Certificate Of Calibration

Owner: City Of Beaumont
Location: Pine Street Water Plant
Application: Raw Water

Certificate No: 11021814

We certify that the following instrument(s) is/are in good working order and conform to the Manufacturers specified accuracy. All workmanship and Materials are guaranteed to be of the highest standards and in accordance with the manufacturers guidelines.

Measuring Element: Magnetic Flow Meter
Flowmeter:

Manufacturer: Rosemount
Model Number: 8750WA
Range: 50 MGD
Variance Found: < 1%

Serial No: 175697
Specified Accuracy: 1%
Zero Distance: N/A

Tube Information:

Manufacturer: Rosemount
Model Number: 8750WA32ESR1A1FPSA360CAANADA1DA2M4Q4G5
Size: 36 Inch Software Revision: 5.2.2
Variance Found: < 1%
Liner Material: Polyurethane

Calibration Data: Instrument was Calibrated as per the Manufactures recommendations and verified by on board Diagnostics

Comments: Passed .02 % from Original Calibration

Date of Calibration: November, 2 2018

Technician: Vernon Hagan

Mud Instruments

1210 Harper Rd, Kerrville Texas 78028

(281) 421-1864

Certificate Of Calibration

Owner: City Of Beaumont

Certificate No: 11021817

Location: City Water Meter

Application: Well #1 Discharge

We certify that the following instrument(s) is/are in good working order and conform to the Manufacturers specified accuracy. All workmanship and Materials are guaranteed to be of the highest standards and in accordance with the manufacturers guidelines.

Measuring Element: Venturi

Flowmeter:

Manufacturer: BFI

Size 14.5 Inch

Range: 0-99.42" H2O

Variance Found: < 1%

Serial No: N/A

Specified Accuracy: 1%

Transmitter Information:

Manufacturer: Rosemount

Model Number: 1151DP

Serial No: N/A

Variance Found: < 1%

Liner Material: N/A

Calibration Data: Instrument was Calibrated as per the Manufactures recommendations and verified with a Hand Pump
99.42 H2O = 18 MGD

Comments: None

Date of Calibration: November, 2 2018

Technician: Vernon Hagan

Mud Instruments

1210 Harper Rd Kerrville Texas 78028

(281) 421-1864

Certificate Of Calibration

Owner: City Of Beaumont

Certificate No: 11021816

Location: Well # 2

Application: City Water Meter

We certify that the following instrument(s) is/are in good working order and conform to the Manufacturers specified accuracy. All workmanship and Materials are guaranteed to be of the highest standards and in accordance with the manufacturers guidelines.

Measuring Element: Magnetic Flow Meter

Flowmeter:

Manufacturer: Endress+Hauser

Model Number: ProMag 400

Range: 300000 GPH

Variance Found: < 3%

Serial No: LA040719000

Specified Accuracy: 5%

Zero Distance: N/A

Tube Information:

Manufacturer: Endress+Hauser

Model Number: 5W4C3F-AAALHP5DHA1KGM+

Size: 14 Inch

Variance Found: < 2%

Liner Material: Hard Rubber

Calibration Data:

Instrument was Calibrated as per the Manufactures recommendations and verified by on board Diagnostics

Comments:

Passed .03 % From Original Calibration
New Meter

Date of Calibration: November, 2 2018

Technician: Vernon Hagan

Mud Instruments

1210 Harper Rd Kerrville Texas 78028

(281) 421-1864

Certificate Of Calibration

Owner: City Of Beaumont

Certificate No: 11021815

Location: Well # 3

Application: City Water Meter

We certify that the following instrument(s) is/are in good working order and conform to the Manufacturers specified accuracy. All workmanship and Materials are guaranteed to be of the highest standards and in accordance with the manufacturers guidelines.

Measuring Element: Magnetic Flow Meter

Flowmeter:

Manufacturer: Endress+Hauser

Model Number: 53W Mag Meter

Range: 5 MGD

Variance Found: < 3%

Serial No: C6051216000R

Specified Accuracy: 5%

Zero Distance: N/A

Tube Information:

Manufacturer: Endress+Hauser

Model Number: 53W3F-UL0B1RC2BAAA

Size: 14 Inch

Variance Found: < 2%

Liner Material: Polyurethane

Calibration Data: Instrument was Calibrated as per the Manufactures recommendations and verified by Ultrasonic Flow Meter

Comments: Passed 3 %(H) Of Transit Time Reading

Date of Calibration: November, 2 2018

Technician: Vernon Hagan

Mud Instruments

1210 Harper Rd, Kerrville Texas 78028

(281) 421-1864

Certificate Of Calibration

Owner: City Of Beaumont

Certificate No: 11021818

Location: LOEB Water Plant

Application: High Service Pump #1, #2 & #3

We certify that the following instrument(s) is/are in good working order and conform to the Manufacturers specified accuracy. All workmanship and Materials are guaranteed to be of the highest standards and in accordance with the manufacturers guidelines.

Measuring Element: Magnetic Flow Meter

Flowmeter:

Manufacturer: Rosemount

Model Number: 8750WA

Serial No: 176390

Range: 4000 GPM

Specified Accuracy: 1%

Variance Found: < 1%

Zero Distance: N/A

Tube Information:

Manufacturer: Rosemount

Model Number: 8750WA32ESR1A1FPSE240CA1NADA1DA2M4Q4

Size: 24 Inch

Software Revision: 5.2.2

Variance Found: < 1%

Liner Material: Polyurethane

Calibration Data:

Instrument was Calibrated as per the Manufactures recommendations and verified by on board Diagnostics

Comments:

Passed .03% From Original Calibration

Date of Calibration: November, 2 2018

Technician: Vernon Hagan

Mud Instruments

1210 Harper Rd - Kerrville, Texas 78028

(281) 421-1864

Certificate Of Calibration

Owner: City Of Beaumont
Location: LOEB Water Plant
Application: High Service Pump #4

Certificate No: 11021819

We certify that the following instrument(s) is/are in good working order and conform to the Manufacturers specified accuracy. All workmanship and Materials are guaranteed to be of the highest standards and in accordance with the manufacturers guidelines.

Measuring Element: Magnetic Flow Meter
Flowmeter:

Manufacturer: Endress+Hauser
Model Number: ProMag
Range: 4000 GPM
Variance Found: < 1%

Serial No: LA040819000
Specified Accuracy: 1%
Zero Distance: N/A

Tube Information:

Manufacturer: Endress+Hauser
Model Number: 5W4C6H-AAALHN5DHA1KGM
Size: 24 Inch
Variance Found: < 1%
Liner Material: Hard Rubber

Software Revision: 5.2.2

Calibration Data: Instrument was Calibrated as per the Manufactures recommendations and verified by on board Diagnostics

Comments: Passed .03% From Original Calibration

Date of Calibration: November, 2 2018

Technician: Vernon Hagan

Appendix E

Distribution System Meter Product Information



T-10 METER

SIZES: 5/8", 3/4", and 1"



T-10 water meters are warranted for performance, materials, and workmanship.



Every T-10 water meter meets or exceeds the latest AWWA C700 Standard. Its nutating disc, positive displacement principle is time-proven for accuracy and dependability since 1892, ensuring maximum utility revenue.

CONSTRUCTION

The T-10 water meter consists of three major assemblies: a register, a no-lead high copper alloy maincase, and a nutating disc measuring chamber.

The T-10 meter is available with a variety of register types. For reading convenience, the register can be mounted in one of four positions on the meter.

The corrosion-resistant no-lead high copper alloy maincase will withstand most service conditions: internal water pressure, rough handling, and in-line piping stress.

The innovative floating chamber design of the nutating disc measuring element protects the chamber from frost damage while the unique chamber seal extends the low flow accuracy by sealing the chamber outlet port to the maincase outlet port. The nutating disc measuring element utilizes corrosion-resistant materials throughout and a thrust roller to minimize wear.

WARRANTY

Neptune provides a limited warranty with respect to its T-10 water meters for performance, materials and workmanship.

When desired, maintenance is easily accomplished either by replacement of major assemblies or individual components.

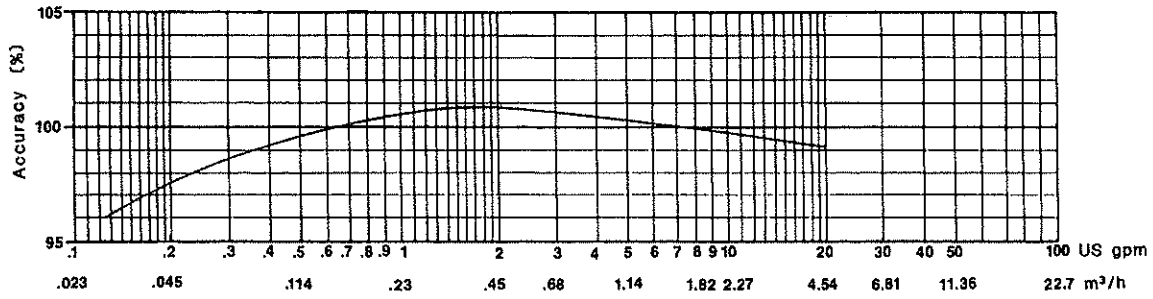
KEY FEATURES

- Register
 - Magnetic drive, low torque registration ensures accuracy
 - Impact-resistant register
 - High resolution, low flow leak detection
 - Bayonet style register mount allows in-line serviceability
 - Tamperproof seal pin deters theft
 - Date of manufacture, size, and model stamped on dial face
- No-Lead Maincase
 - Made from no-lead high copper alloy
 - ANSI/NSF 61 Certified
 - Lifetime guarantee
 - Resists internal pressure stresses and external damage
 - Handles in-line piping variations and stresses
 - No-lead high copper alloy provides residual value vs. plastic
 - Electrical grounding continuity
- Nutating Disc Measuring Chamber
 - Positive displacement
 - Widest effective flow range for maximum revenue
 - Proprietary polymer materials maximize long term accuracy
 - Floating chamber design is unaffected by meter position or in-line piping stresses

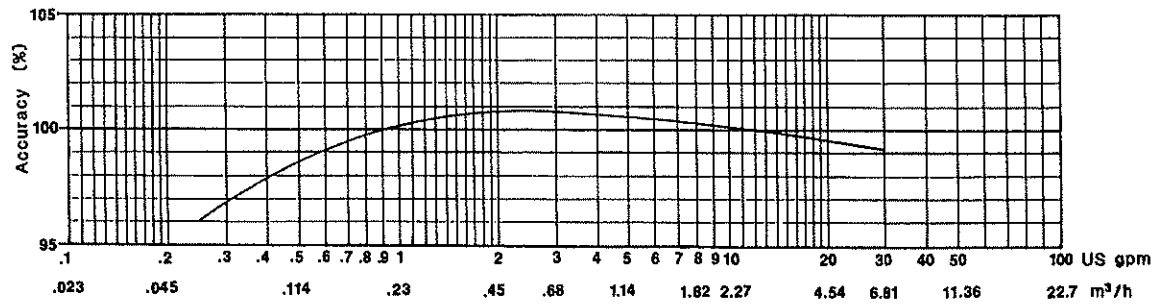
SYSTEMS COMPATIBILITY

Adaptability to all present and future systems for flexibility is available only with Neptune's ARB® Utility Management Systems™.

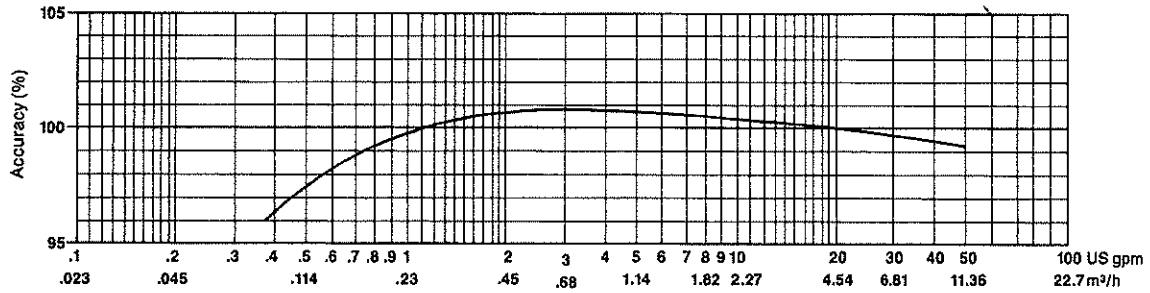
5/8" ACCURACY



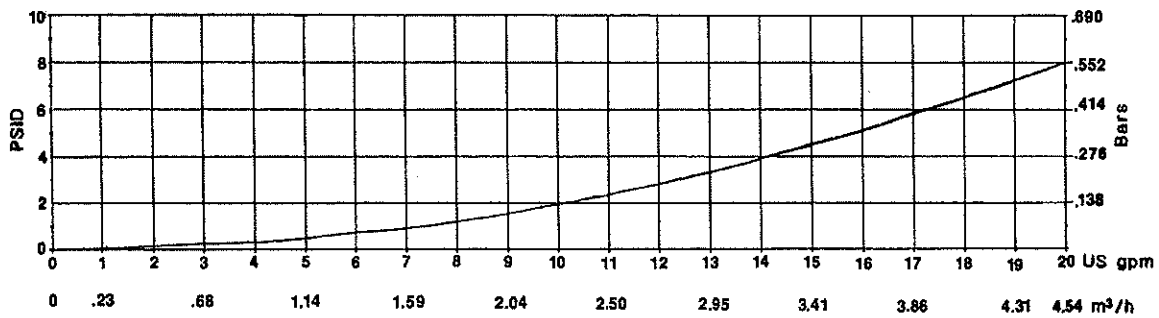
3/4" ACCURACY



1" ACCURACY

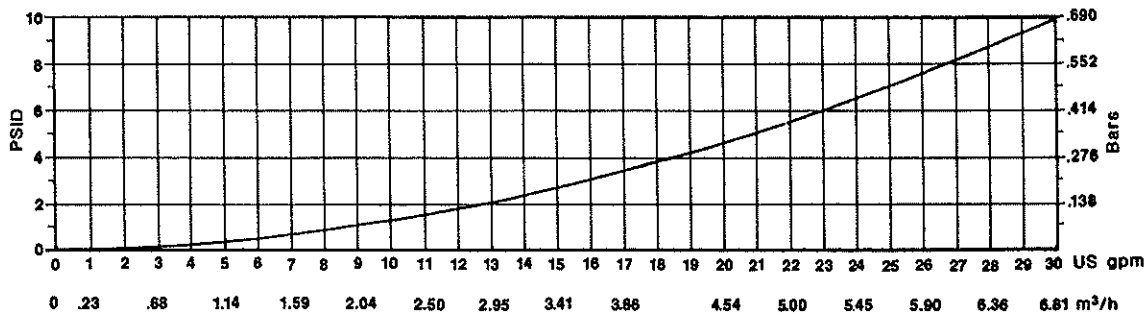


5/8" PRESSURE LOSS

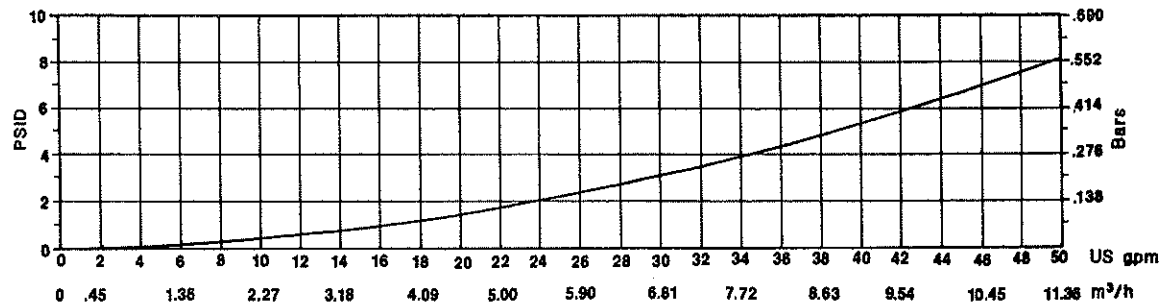


These charts show typical meter performance. Individual results may vary.

3/4" PRESSURE LOSS



1" PRESSURE LOSS

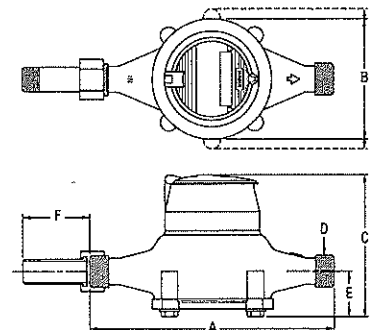


OPERATING CHARACTERISTICS

Meter Size	Normal Operating Range @100% Accuracy (±1.5%)	AWWA Standard	Low Flow @ 95% Accuracy
5/8"	1/2 to 20 US gpm 0.11 to 4.55 m³/h	1 to 20 US gpm 0.23 to 4.5 m³/h	1/8 US gpm 0.03 m³/h
3/4"	3/4 to 30 US gpm 0.17 to 6.82 m³/h	2 to 30 US gpm 0.45 to 6.8 m³/h	1/4 US gpm 0.06 m³/h
1"	1 to 50 US gpm 0.23 to 11.36 m³/h	3 to 50 US gpm 0.68 to 11.4 m³/h	3/8 US gpm 0.09 m³/h

DIMENSIONS

Meter Size	A	B	C-Std.	C-ARB	D-Threads	D-OD	E	F	Weight
	in/mm	in/mm	in/mm	in/mm	per inch	in/mm	in/mm	in/mm	lbs/kg
5/8"	7 1/2 191	3 5/8 92	4 7/8 124	5 3/8 137	14	1.030 26	1 5/8 41	2 1/2 64	3 3/4 1.7
5/8" x 3/4"	7 1/2 191	3 5/8 92	4 7/8 124	5 3/8 137	11 1/2	1.290 33	1 5/8 41	2 5/8 67	4 1.8
3/4"	9 229	4 3/8 111	5 1/2 140	5 13/16 148	11 1/2	1.290 33	1 7/8 48	2 5/8 67	6 2.7
3/4"SL	7 1/2 91	4 3/8 111	5 1/2 140	5 13/16 148	11 1/2	1.290 33	1 7/8 48	2 5/8 67	5 1/2 2.5
3/4"x1"	9 229	4 3/8 111	5 1/2 140	5 13/16 148	11 1/2	1.626 41	1 7/8 48	2 3/4 70	6 1/2 2.9
1"	10 3/4 273	6 1/2 165	6 3/8 162	6 5/8 168	11 1/2	1.626 41	2 1/8 54	2 3/4 70	9 3/4 4.4
1"x1 1/4"	10 3/4 273	6 1/2 165	6 3/8 162	6 5/8 168	11 1/2	1.865 47	2 1/8 54	2 13/16 71	10 1/4 4.6



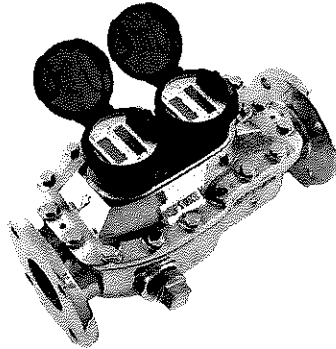


NEPTUNE
TECHNOLOGY GROUP

TRU/FLO® COMPOUND METER

SIZES: 2" HP, 3", 4", 6", AND 6" X 8"

TRU/FLO® meters combine the low-flow sensitivity of a disc-type meter with the high-flow capacity of a turbine-type meter.



All TRU/FLO® Compound water meters meet or exceed the latest performance and accuracy requirements set by the AWWA C702, and maximum continuous flow rates may be exceeded by as much as 25% for intermittent periods.

APPLICATION

The TRU/FLO Compound water meter is designed to register wide flow ranges where varying flow rates are typical. TRU/FLO meters combine the low-flow sensitivity of a disc-type meter with the high-flow capacity of a turbine-type meter.

OPERATION

The hydraulic valve transfers flow smoothly between the disc section and turbine section of the meter, minimizing the loss of accuracy in the crossover range. The turbine measuring element registers high flows and the disc measuring element registers low flows, ensuring accurate measurement at all flow rates.

CONSTRUCTION

The TRU/FLO consists of a durable lead free, high-copper alloy maincase, Neptune High Performance (HP) or Trident® Turbine measuring element, Neptune T-10 chamber, and two magnetic-driven, roll-sealed registers.

The 6" x 8" TRU/FLO assembly consists of two 6" x 8" concentric reducers, a 6" Neptune strainer, and a 6" Neptune TRU/FLO Compound meter.

The lead free, high-copper maincase is corrosion-resistant, lightweight, and easy to handle.

A calibration vane allows field calibration of the UME to lengthen service life and to ensure accurate registration.

The two magnetic-driven, roll-sealed registers simplify the meter's design and reduce long-term maintenance by eliminating complicated combining drive mechanisms. For reading convenience, the registers can be mounted in any one of four positions on the meter.

WARRANTY

Neptune provides a limited warranty with respect to its TRU/FLO Compound water meters for performance, materials, and workmanship.

When desired, owner maintenance is easily accomplished by in-line replacement of major components, or a factory-calibrated UME.

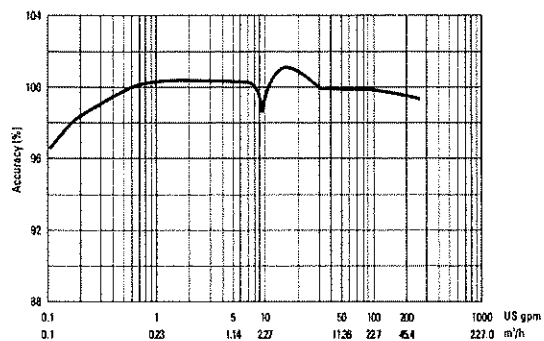
KEY FEATURES

- Minimum loss of accuracy in the crossover range increases revenue
- Spring-loaded valve eliminates need for frequent adjustment and service
- Combined turbine and disc measuring elements
 - Industry-leading flow ranges at 98.5%–101.5% accuracy ensure maximum revenue
 - Direct coupling of rotor to gear train ensures accurate registration
 - Unitized Measuring Element (UME) makes maintenance easier and faster with less downtime
 - Calibration vane allows in-line service to extend life and ensure accurate registration
- Compact maincase
 - Made from lead free, high-copper alloy
 - NSF/ANSI 372 certified and NSF/ANSI 61 compliant
 - Lifetime guarantee
 - Compact, lightweight design provides for easy installation and in-line serviceability

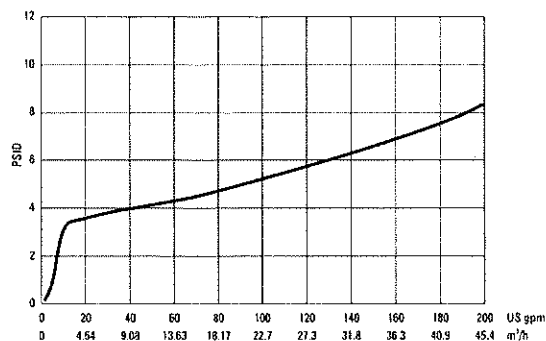
SYSTEMS COMPATIBILITY

Adaptability to all present and future systems for flexibility.

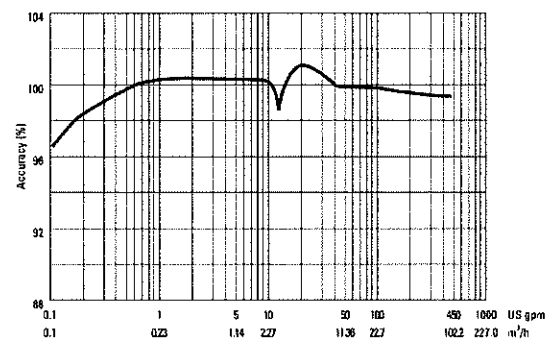
2" ACCURACY



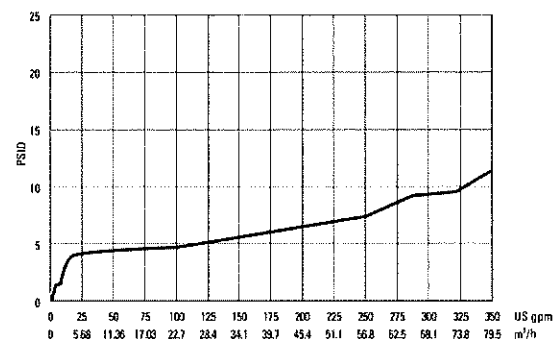
2" PRESSURE LOSS



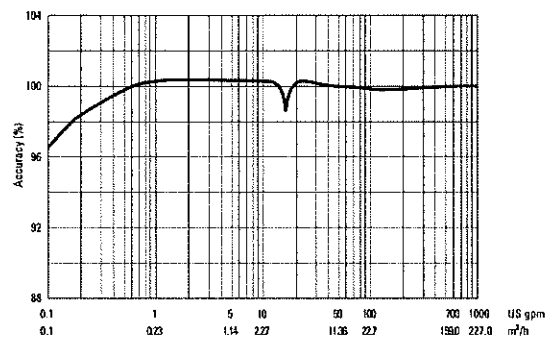
3" ACCURACY



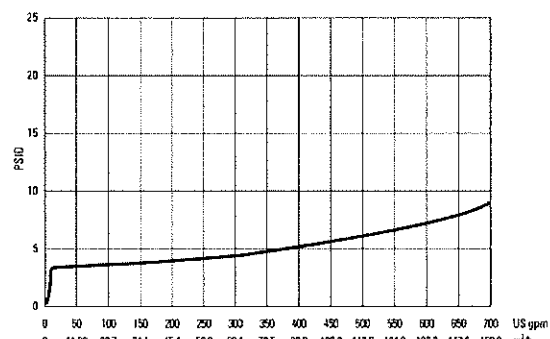
3" PRESSURE LOSS



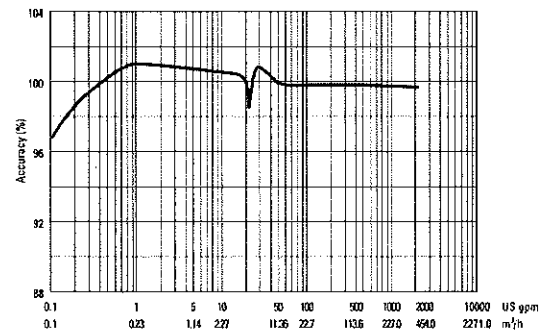
4" ACCURACY



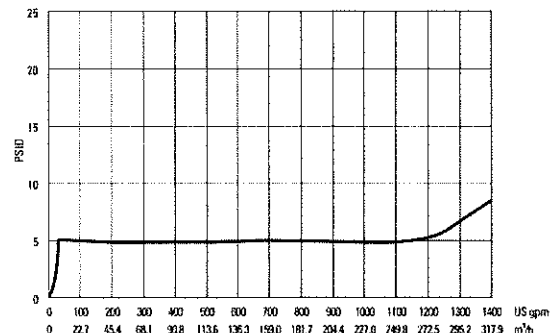
4" PRESSURE LOSS



6" ACCURACY



6" PRESSURE LOSS

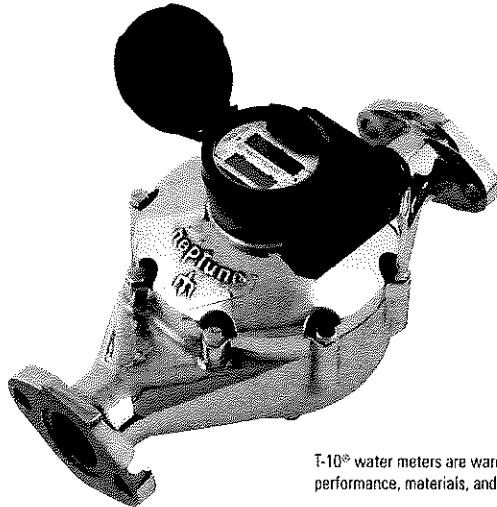


ARB® UTILITY MANAGEMENT SYSTEMS™


NEPTUNE
TECHNOLOGY GROUP

T-10® METER

SIZES: 1 1/2" AND 2"



T-10® water meters are warranted for performance, materials, and workmanship.

Every T-10® water meter meets or exceeds the latest AWWA C700 Standard. Its nutating disc, positive displacement principle has been time-proven for accuracy and dependability since 1892, ensuring maximum utility revenue.

The T-10 water meter consists of three major assemblies: a register, a lead free, high-copper alloy maincase, and a nutating disc measuring chamber.

The T-10 meter is available with a variety of register types. For reading convenience, the register can be mounted in one of four positions on the meter.

The corrosion-resistant, lead-free, high-copper alloy maincase will withstand most service conditions: internal water pressure, rough handling, and in-line piping stress.

The innovative floating chamber design of the nutating disc measuring element protects the chamber from frost damage while the unique chamber seal extends the low-flow accuracy by sealing the chamber outlet port to the maincase outlet port. The nutating disc measuring element utilizes corrosion-resistant materials throughout and a thrust roller to minimize wear.

See Neptune Meter Warranty Statement for warranty details.

When desired, maintenance is easily accomplished either by replacement of major assemblies or individual components.

KEY BENEFITS

- Register
 - Magnetic-drive, low-torque registration ensures accuracy
 - Impact-resistant register
 - High-resolution, low-flow leak detection
 - Bayonet-style register mount allows in-line serviceability
 - Tamperproof seal pin deters theft
 - Date of manufacture, size, and model stamped on dial face

- Lead Free Maincase
 - Made from lead free, high-copper alloy
 - NSF/ANSI 61 Certified
 - NSF/ANSI 372 Certified
 - Lifetime guarantee
 - Resists internal pressure stresses and external damage
 - Handles in-line piping variations and stresses
 - Lead free, high-copper alloy provides residual value vs. plastic
 - Electrical grounding continuity

- Nutating Disc Measuring Chamber
 - Positive displacement
 - Widest effective flow range for maximum revenue
 - Proprietary polymer materials maximize long-term accuracy
 - Floating chamber design is unaffected by meter position or in-line piping stresses

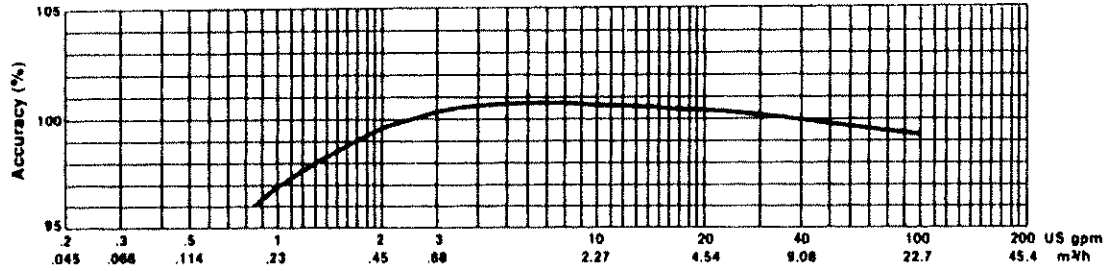
Adaptability to all present and future systems for flexibility is available only with Neptune's ARB® Utility Management Systems™.

CONSTRUCTION

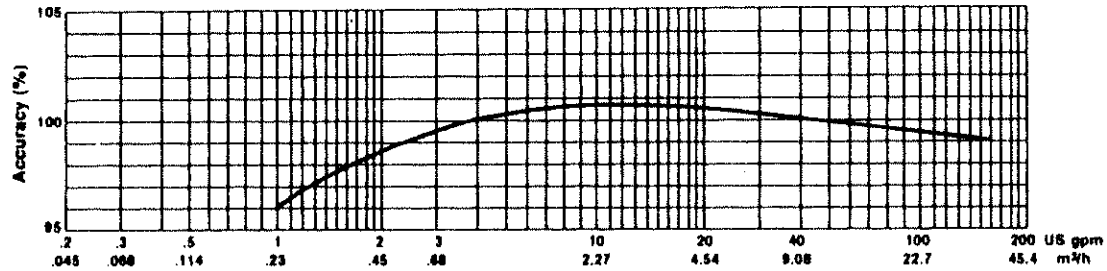
WARRANTY

SYSTEMS COMPATIBILITY

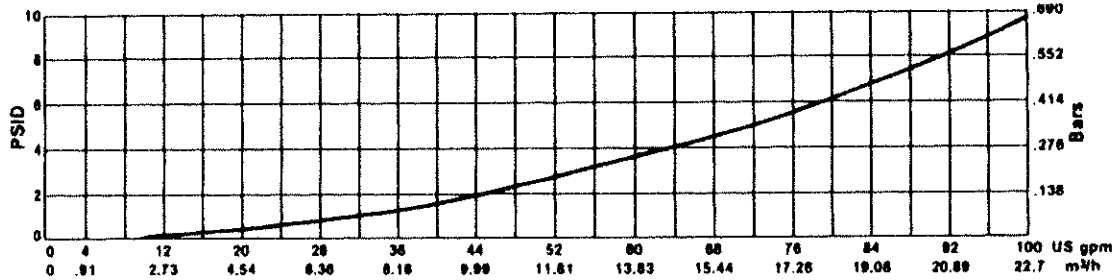
1 1/2" ACCURACY



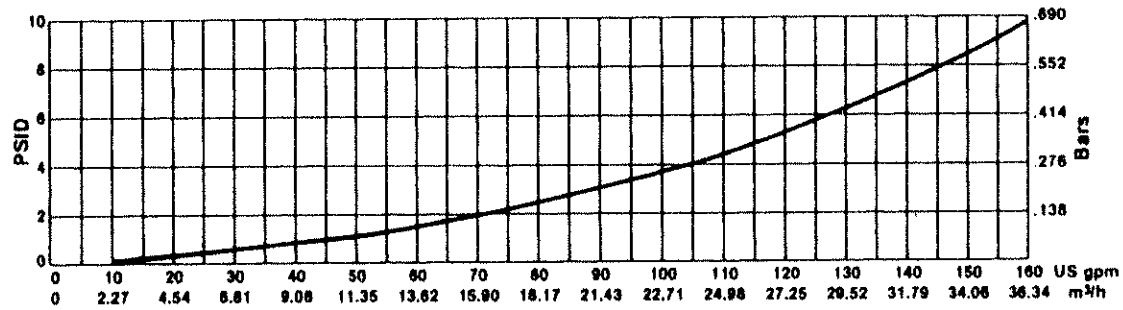
2" ACCURACY



1 1/2" PRESSURE LOSS



2" PRESSURE LOSS



These charts show typical meter performance. Individual results may vary.

Appendix F

Water Rate Structure

Sec. 22.02.001 Water service rates

(a) Effective October 1, 2016, the following rates per month shall be the rates charged for water service furnished to customers within and outside of the corporate limits of the city except as provided in subsection (b) of this section.

Meter Size/Inches	Inside City Rate	Outside City Rate
5/8	\$13.04	\$19.60
1	\$14.45	\$21.66
1-1/2	\$15.85	\$23.75
2	\$19.78	\$29.67
3	\$40.18	\$60.30
4	\$48.71	\$73.07
6	\$87.82	\$131.71
8	\$120.77	\$181.13
10	\$166.19	\$249.31
12	\$207.19	\$310.79
Usage rate first 1,000 gallons	Minimum	Minimum
Over 1,000 gallons \$ per 1,000 gallons	\$4.41	\$6.63

(b) Senior citizens who comply with subsection (c) below will receive a discount equivalent to one thousand (1,000) gallons of water (\$4.41).

(c) Eligible senior citizens shall mean customers residing in a single-family residence inside the city who are over the age of sixty-five (65) years. To obtain the monthly minimum charge deduction, persons eligible must file a sworn application on a form provided therefor, with water customer services. Upon approval of the application the senior citizen's monthly minimum charge shall be applicable for the life of the applicant.

(d) Apartment complexes and mobile home parks with four (4) or more units shall be billed a minimum monthly water service rate for 75% of the number of units at the 5/8-inch meter rate. Additional usage above and beyond the minimum usage will be billed-based on rates set by this section.

Appendix G

Drought Contingency Plan

ARTICLE 22.06 DROUGHT CONTINGENCY PLAN^{*}

Sec. 22.06.001 Declaration of policy, purpose and intent

(a) In order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the city hereby adopts the following regulations and restrictions on the delivery and consumption of water.

(b) Water uses regulated or prohibited under this drought contingency plan are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply condition is deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in [section 22.06.010](#) of this plan.

(Ordinance 01-058, sec. 1, adopted 7/31/01; Ordinance 01-078, sec. 1, adopted 10/9/01; 1978 Code, sec. 28-59(a))

Sec. 22.06.002 Public involvement

Opportunity for the public to provide input into the preparation of the plan was provided by the city by means of providing a public meeting to provide opportunity to allow public input. The meeting was publicly announced through the Beaumont Enterprise. The notice for the meeting was posted at City Hall, 801 Main St., and the meeting was held July 31, 2001. (Ordinance 01-058, sec. 1, adopted 7/31/01; Ordinance 01-078, sec. 1, adopted 10/9/01; 1978 Code, sec. 28-59(b))

Sec. 22.06.003 Public education

The city will periodically provide the public with information about the plan, including information about the conditions under which each stage of the plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by means of television announcements, press releases and utility bill flyers. (Ordinance 01-058, sec. 1, adopted 7/31/01; Ordinance 01-078, sec. 1, adopted 10/9/01; 1978 Code, sec. 28-59(c))

Sec. 22.06.004 Coordination with regional water planning groups

The service area of the city is located within the Region I regional water planning area and the city has provided a copy of this plan to Region I. (Ordinance 01-058, sec. 1, adopted 7/31/01; Ordinance 01-078, sec. 1, adopted 10/9/01; 1978 Code, sec. 28-59(d))

Sec. 22.06.005 Authorization

The city manager, or his/her designee, is hereby authorized and directed to implement the applicable provisions of this plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The city manager, or his/her designee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this plan. (Ordinance 01-058, sec. 1, adopted 7/31/01; Ordinance 01-078, sec. 1, adopted 10/9/01; 1978 Code, sec. 28-59(e))

Sec. 22.06.006 Application

The provisions of this plan shall apply to all persons, customers, and property utilizing water provided by the city. The terms “person” and “customer” as used in the plan include individuals, corporations, partnerships, associations, and all other legal entities. (Ordinance 01-058, sec. 1, adopted 7/31/01; Ordinance 01-078, sec. 1, adopted 10/9/01; 1978 Code, sec. 28-59(f))

Sec. 22.06.007 Definitions

For the purposes of this plan, the following definitions shall apply:

Aesthetic water use. Water use for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

Commercial and institutional water use. Water use which is integral to the operations of commercial and nonprofit establishments and governmental entities such as retail establishments, hotels and motels, restaurants, and office buildings.

Conservation. Those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water or increase the recycling and reuse of water so that a supply is conserved and made available for future or alternative uses.

Customer. Any person, company, or organization using water supplied by the city.

Domestic water use. Water use for personal needs or for household or sanitary purposes such as drinking, bathing, heating, cooking, and sanitation, or for cleaning a residence, business, industry, or institution.

Even-numbered address. Street addresses, box numbers, or rural postal route numbers ending in 0, 2, 4, 6, or 8, and locations without addresses.

Industrial water use. The use of water in processes designed to convert materials of lower value into forms having greater usability and value.

Landscape irrigation use. Water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, and rights-of-way and medians.

Non-essential water use. Water uses that are not essential nor required for the protection of public, health, safety, and welfare, including:

- (1) Irrigation of landscape areas, including parks, athletic fields, and golf courses, except as otherwise provided under this plan;
- (2) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;

- (3) Use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
- (4) Use of water to wash down buildings or structures for purposes other than immediate fire protection;
- (5) Flushing gutters or permitting water to run or accumulate in any gutter or street;
- (6) Use of water to fill, refill, or add to any indoor or outdoor swimming pools or jacuzzi-type pools;
- (7) Use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life;
- (8) Failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s); and
- (9) Use of water from hydrants for construction purposes or any other purposes other than firefighting.

Odd-numbered address. Street addresses, box numbers, or rural postal route numbers ending in 1, 3, 5, 7, or 9.

(Ordinance 01-058, sec. 1, adopted 7/31/01; Ordinance 01-078, sec. 1, adopted 10/9/01; 1978 Code, sec. 28-59(g))

Sec. 22.06.008 Criteria for initiation and termination of drought response stages

The city manager, or his/her designee, shall monitor water supply and/or demand conditions on a daily basis and shall determine when conditions warrant initiation or termination of each stage of the plan, that is, when the specified “triggers” are reached. The triggering criteria described below are based on known system capacity limits. Future improvements to the city’s water system will increase capacity and this plan will be modified to reflect the system’s upgraded capacity.

(1) Stage 1 triggers—Mild water shortage conditions.

(A) Requirements for initiation. Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses defined in [section 22.06.007](#) of this article (definitions) when total daily water demand equals or exceeds thirty-seven million (37,000,000) gallons for three (3) consecutive days or thirty-eight million (38,000,000) gallons on a single day (e.g., based on the “safe” operating capacity of water supply facilities).

(B) Requirements for termination. Stage 1 of the plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days.

(2) Stage 2 triggers–Moderate water shortage conditions.

(A) Requirements for initiation. Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses provided in [section 22.06.009](#) of this plan when the total daily water demand equals or exceeds thirty-eight million (38,000,000) gallons for three (3) consecutive days or thirty-nine million (39,000,000) gallons on a single day.

(B) Requirements for termination. Stage 2 of the plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of stage 2, stage 1 becomes operative.

(3) Stage 3 triggers–Severe water shortage conditions.

(A) Requirements for initiation. Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for stage 3 of this plan when the total daily water demand equals or exceeds thirty-nine million (39,000,000) gallons for three (3) consecutive days or forty million (40,000,000) gallons on a single day.

(B) Requirements for termination. Stage 3 of the plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of stage 3, stage 2 becomes operative.

(4) Stage 4 triggers–Critical water shortage conditions.

(A) Requirements for initiation. Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for stage 4 of this plan when the total daily water demand equals or exceeds forty million (40,000,000) gallons for three (3) consecutive days or forty-two million (42,000,000) gallons on a single day.

(B) Requirements for termination. Stage 4 of the plan may be rescinded when all of the

conditions listed as triggering events have ceased to exist for a period of two (2) consecutive days. Upon termination of stage 4, stage 3 becomes operative.

(5) Stage 5 triggers—Emergency water shortage conditions.

(A) Requirements for initiation. Customers shall be required to comply with the requirements and restrictions for stage 5 of this plan when the city manager, or his/her designee, determines that a water supply emergency exists based on:

(i) Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service; or

(ii) Natural or man-made contamination of the water supply source(s).

(B) Requirements for termination. Stage 5 of the plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days.

(Ordinance 01-058, sec. 1, adopted 7/31/01; Ordinance 01-078, sec. 1, adopted 10/9/01; 1978 Code, sec. 28-59(h))

Sec. 22.06.009 Drought response stages

(a) Generally. The city manager, or his/her designee, shall monitor water supply and/or demand conditions on a daily basis and, in accordance with the triggering criteria set forth in [section 22.06.008](#) of this plan, shall determine that a mild, moderate, severe, critical, emergency or water shortage condition exists and shall implement the following notification procedures:

(1) Notification of the public (all trigger stages): The city manager or his/her designee shall notify the public by means of:

(A) Publication in a newspaper of general circulation (the Beaumont Enterprise);

(B) Public service announcements (local television and radio stations).

(2) Additional notification: The city manager or his/her designee shall notify directly, or cause to be notified directly, the following individuals and entities:

(A) The mayor and members of the city council and the city fire department (all trigger stages);

- (B) City and/or county emergency management coordinator (trigger stage 3 or above);
- (C) TCEQ (required when mandatory restrictions are imposed) (triggers 4 and 5);
- (D) Major water users (trigger stage 3 and above);
- (E) Critical water users, i.e., hospitals, prisons, etc. (trigger stage 3 and above);
- (F) Parks/street superintendents and public facilities managers (any trigger stage).

(b) Stage 1 response—Mild water shortage conditions.

(1) Goal. Achieve a voluntary eight (8) percent reduction in total water demand.

(2) Supply management measures.

(A) Reduced flushing of water mains;

(B) Discontinue fire hydrant flushing;

(3) Voluntary water use restrictions.

(A) Water customers are requested to voluntarily limit the irrigation of landscaped areas to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and to irrigate landscapes only between the hours of midnight and 10:00 a.m. and 8:00 p.m. to midnight on designated watering days.

(B) All operations of the city shall adhere to water use restrictions prescribed for stage 2 of the plan.

(C) Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes.

(c) Stage 2 response—Moderate water shortage conditions.

(1) Goal. Achieve a ten (10) percent reduction in total water demand.

(2) Supply management measures.

(A) Reduced or discontinued flushing of water mains;

- (B) Discontinue fire hydrant testing;
- (C) Reduced or discontinued irrigation of public landscaped areas;
- (D) Implement measures to return all system components to full production capacity.

(3) Water use restrictions. Under threat of penalty for violation, the following water use restrictions shall apply to all persons:

(A) Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and irrigation of landscaped areas is further limited to the hours of 12:00 midnight until 10:00 a.m. and between 8:00 p.m. and 12:00 midnight on designated watering days. However, irrigation of landscaped areas is permitted at any time if it is by means of a hand-held hose, a faucet-filled bucket or watering can of five (5) gallons or less, or a drip irrigation system.

(B) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight. Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. Vehicle washing may be done at any time on the immediate premises of a commercial carwash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public is contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.

(C) Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or jacuzzi-type pools is prohibited except on designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight.

(D) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.

(E) Use of water from hydrants shall be limited to firefighting, related activities, or other activities necessary to maintain public health, safety, and welfare, except that use of water from designated fire hydrants for construction purposes may be allowed under special permit from the city.

(F) Use of water for the irrigation of golf course greens, tees, and fairways is prohibited except on designated watering days between the hours 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight. However, if the golf course utilizes a water source other than that provided by the city, the facility shall not be subject to these regulations.

(G) All restaurants are prohibited from serving water to patrons except upon request of the patron.

(H) The following uses of water are defined as non-essential and are prohibited:

(i) Wash-down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;

(ii) Use of water to wash down buildings or structures for purposes other than immediate fire protection;

(iii) Use of water for dust control;

(iv) Flushing gutters or permitting water to run or accumulate in any gutter or street; and

(v) Failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

(d) Stage 3 response—Severe water shortage conditions.

(1) Goal. Achieve a twelve and one-half (12.5) percent reduction in total water demand.

(2) Supply management measures.

(A) All measures described for stage 2;

(B) Aggressively locate and repair major water main leaks and breaks.

(3) Water use restrictions. All requirements of stage 2 shall remain in effect during stage 3 except:

(A) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, drip irrigation, or permanently installed automatic sprinkler system only. The use of hose-end sprinklers is prohibited at all times.

(B) The watering of golf course tees is prohibited unless the golf course utilizes a water source other than that provided by the city.

(e) Stage 4 response–Critical water shortage conditions.

(1) Goal. Achieve a fifteen (15) percent reduction in total water demand.

(2) Supply management measures. All measures described in stages 2 and 3.

(3) Water use restrictions. All requirements of stage 2 and 3 shall remain in effect during stage 4 except:

(A) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 6:00 a.m. and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, or drip irrigation only. The use of hose-end sprinklers or permanently installed automatic sprinkler systems is prohibited at all times.

(B) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle not occurring on the premises of a commercial carwash and commercial service stations and not in the immediate interest of public health, safety, and welfare is prohibited. Further, such vehicle washing at commercial carwashes and commercial service stations shall occur only between the hours of 6:00 a.m. and 10:00 a.m. and between 6:00 p.m. and 10:00 p.m.

(C) The filling, refilling, or adding of water to swimming pools, wading pools, and jacuzzi-type pools is prohibited.

(D) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is

prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.

(E) No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved, and time limits for approval of such applications are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.

(F) The use of water for construction purposes from designated fire hydrants under special permit is to be discontinued.

(f) Stage 5 response—Emergency water shortage conditions.

(1) Goal. Achieve a thirty (30) percent reduction in total water demand.

(2) Supply management measures. All measures described in stages 2, 3, and 4.

(3) Water use restrictions. All requirements of stage 2, 3, and 4 shall remain in effect during stage 5 except:

(A) Irrigation of landscaped areas is absolutely prohibited.

(B) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is absolutely prohibited.

(C) All water usage except that required to protect the public health, safety, and welfare is prohibited.

(Ordinance 01-058, sec. 1, adopted 7/31/01; Ordinance 01-078, sec. 1, adopted 10/9/01; 1978 Code, sec. 28-59(i)–(n); Ordinance 08-040, sec. 30, adopted 5/13/08)

Sec. 22.06.010 Enforcement

(a) No person shall knowingly or intentionally allow the use of water from the city for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this plan, or in an amount in excess of that permitted by the drought response stage in effect at the time pursuant to action taken by the city manager, or his/her designee, in accordance with provisions of this plan.

(b) Any person who violates this plan is guilty of a misdemeanor and, upon

conviction, shall be punished by a fine of not less than two hundred fifty dollars (\$250.00) and not more than two thousand dollars (\$2000.00). Each day that one or more of the provisions in this plan is violated shall constitute a separate offense. If a person is convicted of three (3) or more distinct violations of this plan, the city manager shall, upon due notice to the customer, be authorized to discontinue water service to the premises where such violations occur. Services discontinued under such circumstances shall be restored only upon payment of a reconnection charge, hereby established at seventy-five dollars (\$75.00), and any other costs incurred by the city in discontinuing service. In addition, suitable assurance must be given to the city manager that the same action shall not be repeated while the plan is in effect. Compliance with this plan may also be sought through injunctive relief in the district court.

(c) Any person, including a person classified as a water customer of the city, in apparent control of the property where a violation occurs or originates shall be presumed to be the violator, and proof that the violation occurred on the person's property shall constitute a rebuttable presumption that the person in apparent control of the property committed the violation, but any such person shall have the right to show that he/she did not commit the violation. Parents shall be presumed to be responsible for violations of their minor children, and proof that a violation, committed by a child, occurred on property within the parents' control shall constitute a rebuttable presumption that the parent committed the violation, but any such parent may be excused if he/she proves that he/she had previously directed the child not to use the water as it was used in violation of this plan and that the parent could not have reasonably known of the violation.

(d) Any employee of the city, police officer, or other city employee designated by the city manager may issue a citation to a person he/she reasonably believes to be in violation of this article. The citation shall be prepared in duplicate and shall contain the name and address of the alleged violator, if known, and the offense charged, and shall direct him/her to appear in the city municipal court on the date shown on the citation, for which the date shall not be less than three (3) days nor more than ten (10) days from the date the citation was issued. The alleged violator shall be served a copy of the

citation. Service of the citation shall be complete upon delivery of the citation to the alleged violator, to an agent or employee of a violator, or to a person over fourteen (14) years of age who is a member of the violator's immediate family or is a resident of the violator's residence. The alleged violator shall appear in the city municipal court to enter a plea of guilty or not guilty for the violation of this plan. If the alleged violator fails to appear in the city municipal court, a warrant for his/her arrest may be issued. A summons to appear may be issued in lieu of an arrest warrant. These cases shall be expedited and given preferential setting in municipal court before all other cases.

(Ordinance 01-058, sec. 1, adopted 7/31/01; Ordinance 01-078, sec. 1, adopted 10/9/01; 1978 Code, sec. 28-59(o))

Sec. 22.06.011 Variances

(a) The city manager, or his/her designee, may, in writing, grant temporary variance for existing water uses otherwise prohibited under this plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:

- (1) Compliance with this plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the plan is in effect.
- (2) Alternative methods can be implemented which will achieve the same level of reduction in water use.

(b) Persons requesting an exemption from the provisions of this article shall file a petition for variance with the city within five (5) days after the plan or a particular drought response stage has been invoked. All petitions for variances shall be reviewed by the city manager, or his/her designee, and shall include the following:

- (1) Name and address of the petitioner(s).
- (2) Purpose of water use.
- (3) Specific provision(s) of the plan from which the petitioner is requesting relief.
- (4) Detailed statement as to how the specific provision of the plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if the

petitioner complies with this article.

- (5) Description of the relief requested.
 - (6) Period of time for which the variance is sought.
 - (7) Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this plan and the compliance date.
 - (8) Other pertinent information.
- (c) Variances granted by the city manager shall be subject to the following conditions, unless waived or modified by the city manager or his/her designee:
- (1) Variances granted shall include a timetable for compliance.
 - (2) Variances granted shall expire when the plan is no longer in effect, unless the petitioner has failed to meet specified requirements.
- (d) No variance shall be retroactive or otherwise justify any violation of this plan occurring prior to the issuance of the variance.

(Ordinance 01-058, sec. 1, adopted 7/31/01; Ordinance 01-078, sec. 1, adopted 10/9/01; 1978 Code, sec. 28-59(p))

Sec. 22.06.012 Application of plan to wholesale customers of city water system

- (a) Pro rata water allocation. In the event that the triggering criteria specified in [section 22.06.008](#)(3) of the plan for stage 3 severe water shortage conditions have been met, the city manager is hereby authorized to initiate allocation of water supplies on a pro rata basis in accordance with Texas Water Code section 11.039 and according to the following water allocation policies and procedures:
- (1) A wholesale customer's monthly allocation shall be a percentage of the customer's water usage baseline. The percentage will be set by resolution of the city based on the city manager's assessment of the severity of the water shortage condition and the need to curtail water diversions and/or deliveries and may be adjusted periodically by resolution of the city as conditions warrant. Once pro rata allocation is in effect, water diversions or by deliveries to each wholesale customer shall be limited to the allocation established for each month.

(2) A monthly water usage allocation shall be established by the city manager or his/her designee, for each wholesale customer. The wholesale customer's water usage baseline will be computed on the average water usage by month for the 1995–2000 calendar year period. If the wholesale water customer's billing history is less than five (5) years, the monthly average for the period for which there is a record shall be used for any monthly period for which no billing history exists.

(3) The city manager shall provide notice, by certified mail, to each wholesale customer informing them of their monthly water usage allocations and shall notify the news media and the executive director of the TCEQ upon initiation of pro rata water allocation.

(4) Upon request of the customer or at the initiative of the city manager the allocation may be reduced or increased if:

(A) The designated period does not accurately reflect the wholesale customer's normal water usage;

(B) The customer agrees to transfer part of its allocation to another wholesale customer; or

(C) Other objective evidence demonstrates that the designated allocation is inaccurate under present conditions.

A customer may appeal an allocation established hereunder to the city council.

(b) Enforcement. During any period when pro rata allocation of available water supplies is in effect, wholesale customers shall pay the following surcharges on excess water diversions and/or deliveries:

(1) One hundred ten (110) percent of the normal water charge for water diversions and/or deliveries in excess of the monthly allocation up through five (5) percent above the monthly allocation.

(2) One hundred twenty (120) percent of the normal water charge for water diversions and/or deliveries in excess of the monthly allocation from five (5) percent through ten (10) percent above the monthly allocation.

(3) One hundred fifty (150) percent of the normal water charge for water diversions and/or deliveries in excess of the monthly allocation from ten (10) percent through fifteen (15) percent above the monthly allocation.

(4) Two (2) times the normal water charge for water diversions and/or more than fifteen (15) percent above the monthly allocation.

(5) The above surcharges shall be cumulative.

(c) Variances.

(1) The city manager, or his/her designee, may, in writing, grant a temporary variance to the pro rata water allocation policies provided by this plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the public health, welfare, or safety and if one or more of the following conditions are met:

(A) Compliance with this plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the plan is in effect.

(B) Alternative methods can be implemented which will achieve the same level of reduction in water use.

(2) Persons requesting an exemption from the provisions of this plan shall file a petition for variance with the city manager within five (5) days after pro rata allocation has been invoked. All petitions for variances shall be reviewed by the city council, and shall include the following:

(A) Name and address of the petitioner(s);

(B) Detailed statement with supporting data and information as to how the pro rata allocation of water under the policies and procedures established in the plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this article;

(C) Description of the relief requested;

(D) Period of time for which the variance is sought;

(E) Alternative measures the petitioner is taking or proposes to take to meet the intent of this plan and the compliance date;

(F) Other pertinent information.

(3) Variances granted by the city shall be subject to the following conditions, unless waived or modified by the city or its designee:

(A) Variances granted shall include a timetable for compliance.

(B) Variances granted shall expire when the plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

(Ordinance 01-058, sec. 1, adopted 7/31/01; Ordinance 01-078, sec. 1, adopted 10/9/01; 1978 Code, sec. 28-59(q); Ordinance 08-040, sec. 30, adopted 5/13/08)

Appendix H
City Council Resolution

RESOLUTION NO. 19-092

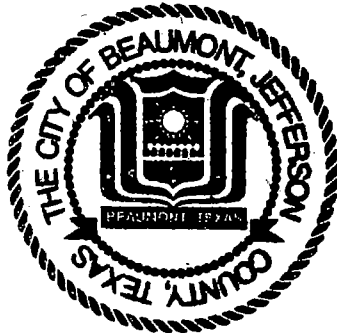
BE IT RESOLVED BY THE CITY COUNCIL
OF THE CITY OF BEAUMONT:

THAT the 2019 Water Conservation Plan is hereby adopted. The Plan is substantially in the form attached hereto as Exhibit "A;" and,

BE IT FURTHER RESOLVED THAT the City of Beaumont hereby renews its commitment to Chapter 22, Article 22.06 "Drought Contingency Plan" of the Code of Ordinances.

The meeting at which this resolution was approved was in all things conducted in strict compliance with the Texas Open Meetings Act, Texas Government Code, Chapter 551.

PASSED BY THE CITY COUNCIL of the City of Beaumont this the 30th day of April, 2019.



A handwritten signature in cursive script, reading "Becky Ames", is written over a horizontal line.

- Mayor Becky Ames -