**Water Conservation &**
**Emergency Water Management Plan**

**for**

**City of Huntington**
**(Angelina County, Texas)**

**KSA Project Number HU.008**

| Revision | Description | By | Date |
|---|---|---|---|
| 0 | Initial Adoption | - | 03/2004 |
| 1 | 2015 Revision | CD Hays | 04/2017 |
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# Table of Contents



# List of Tables



# List of Exhibits

# List of Appendices

# 1 Water Conservation Plan

## 1.1 Introduction

The City of Huntington submitted a Clean Water State Revolving Fund (CWSRF) application to the Texas Water Development Board (TWDB) to secure funding for sewer treatment improvements within the City's service area in an effort to maintain compliance with permitted effluent discharge limits. As a part of the application an update to the current water conservation plan is required. This update is a complete revision of the existing water conservation plan prepared in March 2004.

## 1.2 Water Utility Profile

Profile data for the water utility is provided in Exhibit A. Exhibit A includes population and customer data, water use data, water supply system data and wastewater system data.

## 1.3 Administrative Information

### 1.3.1 Owner Information

The water utility is owned and operated by the City of Huntington whose address and contacts are:

City of Huntington
P.O. Box 349
Huntington, Texas 7549
936-422-4195– Telephone
Contacts: Mr. Bill Stewart, City Administrator
Mr. Robby Roberts, Public Works Director

### 1.3.2 Consultant Information

This plan was prepared by KSA Engineers, Inc. whose address and contact information follows:

KSA Engineers, Inc.
107 West Lufkin Avenue, Suite 200
Lufkin, Texas 75904
(936) 637-6061 – Telephone
(936) 637-6239 - Fax
Contact: Mr. C. Daniel "Danny" Hays, P.E., Senior Project Engineer

## 1.4 Plan Requirements

The TCEQ rules governing development of water conservation plans for public water suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2 of the Texas Administrative Code, which is included as Appendix A. For the purpose of these rules, a water conservation plan is defined as "A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water."

The minimum requirements in the Texas Administrative Code for Water Conservation Plans for Public Water Suppliers are covered in this report as follows:

288.2(a)(1)(A) – Utility Profile
288.2(a)(1)(8) – Specification of Goals
288.2(a)(1)(C) – Accurate Metering
288.2(a)(1)(D) – Universal Metering
288.2(a)(1)(E) – Determination and Control of Unaccounted Water
288.2(a)(1)(F) – Public Education and Information Program

288.2(a)(1)(G) – Non-Promotional Water Rate Structure
288.2(a)(1)(H) – Reservoir System Operations Plan
288.2(a)(1)(I) – Means of Implementation and Enforcement
288.2(a)(1)(J) – Coordination with Regional Water Planning Group

### 1.5 Water Conservation Goals

Water conservation goals were determined by average annual per capita water usage, as calculated from the Utility Profile. Municipal per capita water use is defined by TCEQ as "the sum total of water diverted into a water supply system for residential, commercial, public and institution uses divided by the actual population served". It is common to use municipal per capita water use for water supply/conservation planning and to assess the long-term effectiveness of water conservation programs.

In order to set water conservation goals, baseline per capita water use must first be determined. The City provides treated water to approximately 2,140 residents and 107 commercial/institutional customers. Table 1-1 shows the calculated per capita water usage (gpcd) for the previous five years (2015 – 2011).

**Table 1-1 Per Capita Water Usage**

| YEAR | PER CAPITA WATER USAGE (GPCD) |
|---|---|
| 2015 | 110 |
| 2014 | 104 |
| 2013 | 107 |
| 2012 | 95 |
| 2011 | 114 |
| 5-year Average | 106 |

The TWDB provides a tool for use in estimating the targeted goals for municipal water use conservation. The Water Conservation Utility Profile (TWDB-1965) is completed with updated information. This profile is included as Exhibit A.

Goals of this water conservation plan are:

- To reduce the loss and waste of water
- To improve the efficiency in the use of water
- To establish a 10% goal for unaccounted water
- To meter water consumption at all municipally-owned facilities
- To increase public awareness of water conservation through a public education and information program

In order to continue water conservation efforts, the City has established 5-year and 10-year target goals for reduction in municipal use including a schedule for implementing the plan to achieve the targeted reductions and a method of tracking the implementation and effectiveness. The following updated long-term goals have been adopted by the City of Huntington:

1. Education and information will be provided on a yearly basis to all customers presenting non-wasteful uses of water and techniques that can be employed to conserve water. Based on the TWDB “most likely” scenario, a 2% savings in the average annual per capita use can be realized through education programs. This 2% goal equates to a 2.12 gpcd reduction (average annual gpcd of 106 multiplied by 2%).

2. The TWDB has set a "most-likely" total goal of 7.0% for seasonal water savings. Seasonal water uses from June to August have represented approximately 28% of the total annual production over the last 5 years. This seasonal peak can be offset with the adoption of a landscape ordinance and summer water usage education. The average seasonal per capita usage is 115 gpcd. The resulting gpcd seasonal use reduction provides approximately 8.05 gpcd in water savings (115 multiplied by 7%).

3. Unaccounted-for water from water production to the consumers on the system will be reduced from the previous 5-year average of 21%. This loss should be reduced to no more than 10%. The associated potential savings by reducing unaccounted for water loss is 11.66 gpcd (derived from multiplying average annual per capita water use of 106 gpcd by the difference in reduction of water loss from 21% to 10.0%). This goal will require on-going metering and operational adjustments as well as continual repair, and/or replacement, of old lines and meters in the distribution system. The result will be a decrease in per capita water consumption thus reducing water demands on the system.

These goals provide a total potential for reducing water use by 21.83 gpcd (2.12+8.05+11.66). This would reduce the average year annual per capita use from 106 to 84.17 gpcd. The City intends to meet one-half of this goal within 5 years of plan adoption (2020) and the second-half of this goal within 10 years of plan adoption (2025).

For ease of updating the water conservation plan on an annual basis the 5-year and 10-year goals for water savings are included on the Water Conservation Plan Goals Table (TWDB-1964) found in Exhibit B and the required Water Conservation Plan Annual Report can be found in Exhibit C.

### 1.6 Source Water Metering

The City acquires its water from the Yegua aquifer through three water wells and distributes water through a series of interconnected pipes. Water pumped from each well is metered prior to treatment and distribution. The City also has an interconnect with the City of Lufkin water distribution system. This interconnect is also metered prior to entering the distribution system.

### 1.7 Universal Metering and Meter Testing/Replacement

Metering is widely recognized as an essential requirement for any water utility's efforts to measure and reduce water demand. All water users in Huntington, including most municipal facilities, are metered. This requirement for universal metering of water users will be continued. Metering of all municipal facilities is a goal of this plan. The only unmetered municipal water usage should be for uses such as fire fighting, main flushing, and street sweeping, which by nature do not accommodate a permanent water meter location.

The City typically replaces small residential meters based on abnormally high or low registered water usage, feedback from meter readers, and when the meter register appears broken or scratched.

### 1.8 Determination and Control of Unaccounted for Water

Unaccounted-for water is the difference between water delivered by the City and metered deliveries to customers plus authorized, but unmetered, uses. Authorized, but unmetered, uses would include use for fire fighting, releases for flushing of lines, street sweeping, and uses associated with new construction.

Unaccounted water can include several categories:

- Inaccuracies in customer meters. (Customer meters tend to run more slowly as they age and under-report actual usage.)
- Losses due to water main breaks and leaks in the water distribution system.
- Losses due to illegal connections and theft.

In the past, the City has made a concerted effort to calculate the amount of unaccounted-for water on an annual basis.

The City will continue to maintain data to calculate the amount of unaccounted-for water and, if warranted, may take action to include installation of meters on all municipal facilities, an accelerated meter replacement/repair program, expansion of the leak detection program, and/or increased routine audits of the water system to identify illegal connections and abandoned services. The City intends to maintain an unaccounted water level of less than 10%.

### 1.9 Public Education

The primary elements of the City's public education program are:

- Utility bill inserts regarding the water conservation issues
- Presentations to schools regarding water conservation and water quality issues
- Customer-service personnel focus on water conservation strategies with utility customers

### 1.10 Water Rate Structure.

The City's current water rate structure is an increased block type, which encourages water conservation. The current water and sewer rates can be found in Exhibit D.

### 1.11 Reservoir System Operations Plan (Not Applicable)

### 1.12 Implementation and Enforcement

A copy of the ordinance indicating the official adoption of this Water Conservation Plan by the City Council is provided in Exhibit E.

The City Administrator will be responsible for implementation and administration of the Water Conservation Plan, as follows:

- Oversee the execution and administration of all Plan elements
- Supervise the keeping of records for program verification and to assess the program effectiveness
- Make recommendations for changes in the Water Conservation Plan elements

Elements of this Water Conservation Plan which require enforcement (such as the universal metering requirements) are generally handled by incorporation into municipal ordinances.

### 1.13 Coordination with the Regional Water Planning Group

The service area of the City is located within the Region I Water Planning Area. The City will provide a copy of this Water Conservation Plan to the Region I Water Planning Group.

### 1.14 Leak Detection and Repair

The City's current leak detection program will be continued, such program includes:

- Visual observations by meter readers, water system employees and customers who keep watch for abnormal conditions which may indicate a leak; and,
- Adequate and responsive staff with appropriate equipment is available 24 hours per day to repair any leaks that are detected.

### 1.15 Water Use Record Management

The current utility billing system recognizes users as being either inside the City limits or outside the City limits. Some unmetered municipal water usage (such as parks) exists, as well as unaccounted-for usages previously mentioned such as fire fighting, water line flushing, etc. The current user categories will be

continued and should be adequate to provide accurate records of water sales and to determine the amount of unaccounted-for water.

### 1.16 Wholesale Water Contracts

The City does not currently have any wholesale water supply contracts. Should the City enter into a future wholesale water supply contract, the contract will contain provisions which require the other entity to either, (1) adopt the provisions of the City's Water Conservation Plan, or (2) develop and adopt a plan that has been approved by the TCEQ.

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# 2 Emergency Water Management Plan

## 2.1 Introduction

While the water conservation planning elements implement permanent water use efficiency procedures, it does not provide for emergency circumstances that can arise. Examples of such circumstances include: droughts; contamination of water supply(s); disasters which destroy all or part of the water system; or major failures of treatment works, transmission mains, storage, or distribution. It is, therefore, critical that an emergency plan be developed before such circumstances occur.

Emergency water demand management involves various key concepts which must be outlined in order to ensure an effective plan is available for distributing water in times of shortage. The goal of the emergency water demand management plan is to quickly reduce the amount of water used by the City's customers in response to an emergency condition. To achieve this goal, the plan involves major elements which include:

- Trigger Conditions and Response Measures;
- Initiation Procedures;
- Termination Notification Actions;
- Means of Implementation; and,
- Information and Education.

Collectively, these elements form a plan that can effectively address temporary emergency conditions with predetermined methods and techniques. While this plan cannot cover every possible emergency situation, it does provide a framework by which emergency water demand management can be quickly implemented by the City.

## 2.2 Plan Requirements

The TCEQ rules governing development of drought contingency plans (referred to as an emergency water management plan herein) for public water suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.20 of the Texas Administrative Code, which is included as Appendix B. For the purpose of these rules, a water conservation plan is defined as "A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water."

The minimum requirements in the Texas Administrative Code for Water Conservation Plans for Public Water Suppliers are covered in this report as follows:

288.20(a)(1)(A) – Public Involvement
288.20(a)(1)(8) – Public Education and Information Program
288.20(a)(1)(C) – Coordination with Regional Water Planning Group
288.20(a)(1)(D) – System Monitoring and Response Criteria
288.20(a)(1)(E) – Stages of Response
288.20(a)(1)(F) – Targets for Water Use Reduction
288.20(a)(1)(G) – Water Supply/Demand Management Measures
288.20(a)(1)(H) – Criteria for Termination of Response Stages
288.20(a)(1)(I) – Procedures for Granting Variances
288.20(a)(1)(J) – Procedures for Enforcement

## 2.3 Trigger Conditions and Response Measures

The City uses groundwater from existing wells and purchases treated water, as needed, to meet the water needs of its customers. Given the current supply facilities, the City must be prepared to respond to any emergency water supply situation.

Five (5) threshold levels have been identified for triggering various responses to water supply emergencies. These trigger conditions and corresponding emergency response measures are presented in Table 2-1.

**Table 2-1 Trigger Conditions**

| PHASE | TRIGGER CONDITIONS | RESPONSE MEASURES |
|---|---|---|
| Phase 1: Water Shortage Alert | Water Pumpage In Excess of 192,000 Gallons For Three Consecutive Days. | Formal Public Notification By Water Superintendent Of The Alert Conditions.<br>Initiate Public Information Efforts.<br>Notify Major Commercial And Industrial Water Users.<br>Increase Water Supply And Demand Monitoring.<br>Increase Leak Detection And Repair Efforts. |
| Phase 2: Voluntary Water Use Curtailment | Water Pumpage In Excess of 240,000 Gallons For Three Consecutive Days. | Continued Implementation Of Phase 1 Actions.<br>Formal Public Notification Of Water Shortage Conditions And Request For Voluntary Water Use Curtailment. |
| Phase 3: Mandatory Water Use Curtailment | Water Pumpage In Excess of 288,000 Gallons For Three Consecutive Days. | Continued Implementation Of Relevant Actions In Proceeding Phases.<br>Water Waste Prohibited.<br>Car Washing, Window Washing, Pavement Washing, etc. Prohibited Except When A Bucket Is Used.<br>Lawn And Garden Irrigation Restricted To Every Other Day During The Hours Of 6:00 AM To 10:00 AM And 8:00 PM To 10:00 PM Using Only A Hand Held Hose For Application |
| Phase 4: Price Rationing | Water Pumpage In Excess of 384,000 Gallons For Three Consecutive Days. | Continued Implementation Of Relevant Actions In Preceding Phases.<br>All Non-Essential Outdoor Water Uses Prohibited.<br>Implement Drought Surcharge Of $x.00 Per Thousand Gallons Used In Excess of x,000 Gallons Per Household. |
| Phase 5: Termination of Water Shortage | Water Pumpage Below 192,000 Gallons For Three Consecutive Days. | Formal Public Notification That The Water Shortage Conditions And Measures Taken In Response Are Terminated. |

## 2.4 Initiation Procedures

The City, through the office of the City Administrator or his/her duly appointed representative, will order the initiation of public notification when trigger conditions signal the need to implement emergency water demand management measures. Communication of the emergency water demand condition will be distributed to the public via notices:

- Posted at City Hall, the Post Office, shopping establishments, and restaurants.
- Circulated to local newspaper and radio stations.

The notice will include the appropriate demand management measures that must be taken in response to the existing trigger condition.

### 2.5 Termination Notification Actions

Upon the City's determination that the emergency condition has subsided (through the City Administrator or his/her duly appointed representative), the public will be informed of the termination of the response measures in the same manner that the initiation notice was distributed.

### 2.6 Means of Implementation

The emergency water demand management plan elements have been implemented through the passage of a resolution (see Exhibit E). By passage of this resolution and subsequent adoption of this plan, the City Administrator or his/her duly authorized representative has the authority to begin immediate implementation of contingency measures when a trigger condition is reached.

### 2.7 Information and Education

The public will be informed of the emergency water demand management system as outlined in this plan after adoption. This information will be distributed to the customers through, (1) newspaper articles and, (2) education and information process as part of the Water Conservation Plan.

### 2.8 Targeted Use Reduction

#### 2.8.1 Phase 1: Water Shortage Alert

Phase 1 water shortage alerts are most likely to occur during summer when water use is at its greatest and are typically caused by outdoor watering. Simple public information reports and commercial notification of an impending problem is often sufficient to obtain approximately a 5% voluntary reduction in daily water use.

#### 2.8.2 Phase 2: Voluntary Water Use Curtailment

Phase 2 voluntary water use curtailment alerts are most likely to occur during summer when water use is at its greatest and are typically caused by outdoor watering. Formal public notification of a water shortage and request for voluntary curtailment is often sufficient to obtain approximately a 10% voluntary reduction in daily water use.

#### 2.8.3 Phase 3: Mandatory Water Use Curtailment

Phase 3 mandatory water use curtailment alerts will most likely occur due to infrastructure failure but could result from unprecedented water use or large water main leaks. Prohibited water waste, limited car/boat/window/etc. washing via bucket, and a formal irrigation schedule is often sufficient to obtain approximately a 12.5% reduction in daily water use.

#### 2.8.4 Phase 4: Price Rationing

Phase 4 price rationing alerts will most likely occur due to infrastructure failure but could result from unprecedented water use or large water main leaks. Prohibited non-essential outdoor water use and implementation of a drought surcharge is sufficient to obtain approximately a 12.5% reduction in daily water use.

### 2.9 Variances

The City Administrator, 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.

Persons requesting an exemption from the provisions of this Ordinance shall file a petition for variance with the City within 5 days after the Plan or a particular drought response stage has been invoked. All petitions for variances shall be reviewed by the City Administrator, 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 petitioner complies with this Ordinance.
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.

Variances granted by the City shall be subject to the following conditions, unless waived or modified by the City Administrator 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.

No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

**Exhibit A**

**Water Utility Profile (TWDB-1965)**

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# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

Fill out this form as completely as possible.
**If a field does not apply to your entity, leave it blank.**

## CONTACT INFORMATION

Name of Utility: City of Huntington

Public Water Supply Identification Number (PWS ID): TX0030002

Certificate of Convenience and Necessity (CCN) Number: 12748

Surface Water Right ID Number: _____

Wastewater ID Number: WQ0010191-001

Completed By: C. Daniel Hays, P.E. Title: Sr. Project Engineer

Address: 107 W. Lufkin Ave, Ste. 200 City: Lufkin Zip Code: 75904

Email: dhays@ksaeng.com Telephone Number: 936.637.6061

Date: 09/16/2016

Regional Water Planning Group: I Map

Groundwater Conservation District: Pineywoo Map

Check all that apply:

- [x] Received financial assistance of $500,000 or more from TWDB
- [ ] Have 3,300 or more retail connections
- [ ] Have a surface water right with TCEQ

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# Section I: Utility Data

## A. Population and Service Area Data

1. Current service area size in square miles: 2
(Attach or email a copy of the service area map.)

2. Provide historical service area population for the previous five years, starting with the most current year.

| Year | Historical Population Served By Retail Water Service | Historical Population Served By Wholesale Water Service | Historical Population Served By Wastewater Service |
|---|---|---|---|
| 2015 | 2,140 | 0 | 2,140 |
| 2014 | 2,112 | 0 | 2,112 |
| 2013 | 2,110 | 0 | 2,110 |
| 2012 | 2,114 | 0 | 2,114 |
| 2011 | 2,125 | 0 | 2,125 |

3. Provide the projected service area population for the following decades.

| Year | Projected Population Served By Retail Water Service | Projected Population Served By Wholesale Water Service | Projected Population Served By Wastewater Service |
|---|---|---|---|
| 2020 | 2,278 | 0 | 2,278 |
| 2030 | 2,438 | 0 | 2,438 |
| 2040 | 2,571 | 0 | 2,571 |
| 2050 | 2,694 | 0 | 2,694 |
| 2060 | 2,803 | 0 | 2,803 |

4. Describe the source(s)/method(s) for estimating current and projected populations.

Historical populations are estimates from the US Census Bureau. Projected population is from the 2016 Regional Water Plan.

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## B. System Input

Provide system input data for the previous five years.

Total System Input = Self-supplied + Imported – Exported

| Year | Self-supplied Water in Gallons | Purchased/Imported Water in Gallons | Exported Water in Gallons | Total System Input | Total GPCD |
|---|---|---|---|---|---|
| 2015 | 85,745,000 | 0 | 0 | 85,745,000 | 110 |
| 2014 | 80,184,000 | 0 | 0 | 80,184,000 | 104 |
| 2013 | 82,057,000 | 0 | 0 | 82,057,000 | 107 |
| 2012 | 73,501,000 | 0 | 0 | 73,501,000 | 95 |
| 2011 | 88,608,000 | 0 | 0 | 88,608,000 | 114 |
| **Historic 5-year Average** | 82,019,000 | 0 | 0 | 82,019,000 | 106 |

## C. Water Supply System (Attach description of water system)

1. Designed daily capacity of system 480,000 **gallons** per day.
2. Storage Capacity:
   Elevated 155,000 **gallons**
   Ground 212,000 **gallons**

3. List all current water supply sources in gallons.

| Water Supply Source | Source Type* | Total Gallons |
|---|---|---|
| Well #2 | Ground | 36,792,000 |
| Well #3 | Ground | 247,032,000 |
| Well #4 | Ground | 99,864,000 |
| City of Lufkin | Contract | 146,000,000 |
| | Choose One | |
| | Choose One | |

*Select one of the following source types: *Surface water, Groundwater, or Contract*

4. If surface water is a source type, do you recycle backwash to the head of the plant?
   - ○ Yes _____ estimated **gallons** per day
   - ○ No

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## D. Projected Demands

1. Estimate the water supply requirements for the next ten years using population trends, historical water use, economic growth, etc.

| Year | Population | Water Demands (gallons) |
|---|---|---|
| 2016 | 2,256 | 86,461,200 |
| 2017 | 2,279 | 87,342,675 |
| 2018 | 2,302 | 88,224,150 |
| 2019 | 2,325 | 89,105,625 |
| 2020 | 2,348 | 89,987,100 |
| 2021 | 2,371 | 90,868,575 |
| 2022 | 2,394 | 91,750,050 |
| 2023 | 2,417 | 92,631,525 |
| 2024 | 2,440 | 93,513,000 |
| 2025 | 2,463 | 94,394,475 |

2. Describe sources of data and how projected water demands were determined. Attach additional sheets if necessary.

Population projections were calculated using a 2010 base population of 2,118 and the historic constant growth rate 1971 model described in an Engineering Feasibility Report prepared for the City of Huntington Wastewater Treatment Plant Rehabilitation project by KSA Engineers dated July 7, 2014.

Projected water demands were calculated using the projected population multiplied by the historic 5-year average per capita demand of 105 gpcd shown in Section B of this Utility Profile.

## E. High Volume Customers

1. List the annual water use, in gallons, for the five highest volume **RETAIL customers**. Select one of the following water use categories to describe the customer; choose Residential, Industrial, Commercial, Institutional, or Agricultural.

| Retail Customer | Water Use Category* | Annual Water Use | Treated or Raw |
|---|---|---|---|
| Huntington Rehabilitation | Commercial | 2,942,100 | Treated |
| Huntington Housing Authority | Residential | 1,343,400 | Treated |
| Trailwood Apartments | Residential | 885,700 | Treated |
| Huntington Charger | Commercial | 754,700 | Treated |
| Huntington Housing Authority | Residential | 544,200 | Treated |

*For definitions on recommended customer categories for classifying customer water use, refer to the online Guidance and Methodology for Reporting on Water Conservation and Water Use.

2. If applicable, list the annual water use for the five highest volume **WHOLESALE customers**. Select one of the following water use categories to describe the customer; choose Municipal, Industrial, Commercial, Institutional, or Agricultural.

| Wholesale Customer | Water Use Category* | Annual Water Use | Treated or Raw |
|---|---|---|---|
| | Choose One | | Choose One |
| | Choose One | | Choose One |
| | Choose One | | Choose One |
| | Choose One | | Choose One |
| | Choose One | | Choose One |

*For definitions on recommended customer categories for classifying customer water use, refer to the online Guidance and Methodology for Reporting on Water Conservation and Water Use.

## F. Utility Data Comment Section

Provide additional comments about utility data below.

Texas Water Development Board

# Section II: System Data

## A. Retail Connections

1. List the active retail connections by major water use category.

| Water Use Category* | Active Retail Connections | | | |
|---|---|---|---|---|
| | Metered | Unmetered | Total Connections | Percent of Total Connections |
| Residential – Single Family | 766 | 0 | 766 | 78% |
| Residential – Multi-family (units) | 110 | 0 | 110 | 11% |
| Industrial | 0 | 0 | 0 | 0% |
| Commercial | 93 | 0 | 93 | 9% |
| Institutional | 14 | 0 | 14 | 1% |
| Agricultural | 1 | 0 | 1 | 0% |
| **TOTAL** | 984 | 0 | 984 | |

*For definitions on recommended customer categories for classifying customer water use, refer to the online Guidance and Methodology for Reporting on Water Conservation and Water Use.

2. List the net number of new retail connections by water use category for the previous five years.

| Water Use Category* | Net Number of New Retail Connections | | | | |
|---|---|---|---|---|---|
| | 2015 | 2014 | 2013 | 2012 | 2011 |
| Residential – Single Family | 4 | 4 | 7 | 7 | 10 |
| Residential – Multi-family (units) | 0 | 0 | 0 | 2 | 0 |
| Industrial | 0 | 0 | 0 | 0 | 0 |
| Commercial | 0 | 0 | 0 | 0 | 0 |
| Institutional | 0 | 0 | 0 | 0 | 0 |
| Agricultural | 0 | 0 | 0 | 0 | 0 |
| **TOTAL** | 4 | 4 | 7 | 9 | 10 |

*For definitions on recommended customer categories for classifying customer water use, refer to the online Guidance and Methodology for Reporting on Water Conservation and Water Use.

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## B. Accounting Data

For the previous five years, enter the number of gallons of RETAIL water provided in each major water use category.

| Water Use Category* | Total Gallons of Retail Water | | | | |
|---|---|---|---|---|---|
| | 2015 | 2014 | 2013 | 2012 | 2011 |
| Residential - Single Family | 31,353,600 | 35,887,200 | 37,748,400 | 39,318,000 | 40,284,000 |
| Residential – Multi-family | 3,253,200 | 2,805,600 | 3,858,000 | 2,947,200 | 4,698,000 |
| Industrial | 0 | 0 | 0 | 0 | 0 |
| Commercial | 12,768,000 | 14,166,000 | 16,605,600 | 17,364,000 | 20,635,200 |
| Institutional | 998,400 | 894,000 | 1,448,400 | 922,800 | 2,520,000 |
| Agricultural | 6,000 | 4,800 | 2,400 | 7,200 | 10,800 |
| **TOTAL** | 48,379,200 | 53,757,600 | 59,662,800 | 60,559,200 | 68,148,000 |

*For definitions on recommended customer categories for classifying customer water use, refer to the online Guidance and Methodology for Reporting on Water Conservation and Water Use.

## C. Residential Water Use

For the previous five years, enter the residential GPCD for single family and multi-family units.

| Water Use Category* | Residential GPCD | | | | |
|---|---|---|---|---|---|
| | 2015 | 2014 | 2013 | 2012 | 2011 |
| Residential - Single Family | 46 | 54 | 57 | 59 | 60 |
| Residential – Multi-family | 32 | 27 | 38 | 29 | 45 |
| | | | | | |

## D. Annual and Seasonal Water Use

1. For the previous five years, enter the gallons of treated water provided to RETAIL customers.

| Month | Total Gallons of Treated Retail Water | | | | |
|---|---|---|---|---|---|
| | 2015 | 2014 | 2013 | 2012 | 2011 |
| January | 4,436,000 | 5,076,000 | 5,636,800 | 4,667,500 | 6,263,000 |
| February | 4,252,100 | 4,515,800 | 4,487,700 | 4,808,400 | 5,442,100 |
| March | 4,442,300 | 4,514,900 | 4,816,000 | 4,854,300 | 6,297,400 |
| April | 4,983,600 | 4,870,100 | 5,097,400 | 5,101,200 | 5,861,300 |
| May | 4,049,500 | 5,251,100 | 5,734,000 | 6,702,600 | 6,553,600 |
| June | 4,894,800 | 5,026,000 | 5,097,800 | 6,064,700 | 8,177,200 |
| July | 5,668,400 | 5,046,300 | 5,738,800 | 5,346,700 | 7,295,100 |
| August | 5,243,300 | 4,396,300 | 6,314,300 | 6,510,100 | 7,621,700 |
| September | 4,900,600 | 4,742,000 | 5,519,500 | 4,817,200 | 5,347,100 |
| October | 4,931,500 | 5,028,200 | 5,384,700 | 5,421,900 | 4,755,100 |
| November | 4,226,000 | 4,335,700 | 4,875,600 | 4,936,900 | 5,398,600 |
| December | 5,120,100 | 5,216,600 | 5,262,200 | 5,078,600 | 5,627,200 |
| **TOTAL** | 57,148,200 | 58,019,000 | 63,964,800 | 64,310,100 | 74,639,400 |

2. For the previous five years, enter the gallons of raw water provided to RETAIL customers.

| Month | Total Gallons of Raw Retail Water | | | | |
|---|---|---|---|---|---|
| | 2015 | 2014 | 2013 | 2012 | 2011 |
| January | 0 | 0 | 0 | 0 | 0 |
| February | 0 | 0 | 0 | 0 | 0 |
| March | 0 | 0 | 0 | 0 | 0 |
| April | 0 | 0 | 0 | 0 | 0 |
| May | 0 | 0 | 0 | 0 | 0 |
| June | 0 | 0 | 0 | 0 | 0 |
| July | 0 | 0 | 0 | 0 | 0 |
| August | 0 | 0 | 0 | 0 | 0 |
| September | 0 | 0 | 0 | 0 | 0 |
| October | 0 | 0 | 0 | 0 | 0 |
| November | 0 | 0 | 0 | 0 | 0 |
| December | 0 | 0 | 0 | 0 | 0 |
| **TOTAL** | 0 | 0 | 0 | 0 | 0 |

3. Summary of seasonal and annual water use.

| Water Use | Seasonal and Annual Water Use | | | | | Average in Gallons |
|---|---|---|---|---|---|---|
| | 2015 | 2014 | 2013 | 2012 | 2011 | |
| Summer Retail (Treated + Raw) | 15,806,500 | 14,468,600 | 17,150,900 | 17,921,500 | 23,094,000 | 17,688,300 / 5yr Average |
| TOTAL Retail (Treated + Raw) | 57,148,200 | 58,019,000 | 63,964,800 | 64,310,100 | 74,639,400 | 63,616,300 / 5yr Average |

## E. Water Loss

Provide Water Loss data for the previous five years.

Water Loss GPCD = [Total Water Loss in Gallons ÷ Permanent Population Served] ÷ 365
Water Loss Percentage = [Total Water Loss ÷ Total System Input] x 100

| Year | Total Water Loss in Gallons | Water Loss in GPCD | Water Loss as a Percentage |
|---|---|---|---|
| 2015 | 18,150,111 | 23 | 21% |
| 2014 | 19,248,521 | 25 | 24% |
| 2013 | 18,894,200 | 25 | 23% |
| 2012 | 14,995,474 | 19 | 20% |
| 2011 | 14,460,000 | 19 | 16% |
| **5-year average** | 17,149,661 | 22 | 21% |

Texas Water Development Board

## F. Peak Water Use

Provide the Average Daily Water Use and Peak Day Water Use for the previous five years.

| Year | Average Daily Use (gal) | Peak Day Use (gal) | Ratio (peak/avg) |
|---|---|---|---|
| 2015 | 235,300 | 720,000 | 3.06 |
| 2014 | 219,300 | 453,000 | 2.07 |
| 2013 | 223,000 | 586,000 | 2.63 |
| 2012 | 210,000 | 399,000 | 1.90 |
| 2011 | 341,000 | 387,000 | 1.13 |

## G. Summary of Historic Water Use

| Water Use Category | Historic 5-year Average | Percent of Connections | Percent of Water Use |
|---|---|---|---|
| Residential SF | 36,918,240 | 78% | 0% |
| Residential MF | 3,512,400 | 11% | 0% |
| Industrial | 0 | 0% | 0% |
| Commercial | 16,307,760 | 9% | 0% |
| Institutional | 1,356,720 | 1% | 0% |
| Agricultural | 6,240 | 0% | 0% |

## H. System Data Comment Section

Provide additional comments about system data below.

Texas Water Development Board

# Section III: Wastewater System Data

If you do not provide wastewater system services then you have completed the Utility Profile. Save and Print this form to submit with your Plan. Continue with the Water Conservation Plan Checklist to complete your Water Conservation Plan.

## A. Wastewater System Data (Attach a description of your wastewater system.)

1. Design capacity of wastewater treatment plant(s): 420,000 **gallons** per day.

2. List the active wastewater connections by major water use category.

| Water Use Category* | Active Wastewater Connections | | | |
|---|---|---|---|---|
| | Metered | Unmetered | Total Connections | Percent of Total Connections |
| Municipal | 3 | 0 | 3 | 3% |
| Industrial | 0 | 0 | 0 | 0% |
| Commercial | 81 | 0 | 81 | 81% |
| Institutional | 16 | 0 | 16 | 16% |
| Agricultural | 0 | 0 | 0 | 0% |
| **TOTAL** | 100 | 0 | 100 | |

2. What percent of water is serviced by the wastewater system? ____%

3. For the previous five years, enter the number of gallons of wastewater that was treated by the utility.

| Month | Total Gallons of Treated Wastewater | | | | |
|---|---|---|---|---|---|
| | 2015 | 2014 | 2013 | 2012 | 2011 |
| January | 5,620,000 | 3,160,000 | 2,660,000 | 4,290,000 | 3,710,000 |
| February | 5,040,000 | 4,170,000 | 1,400,000 | 5,310,000 | 2,940,000 |
| March | 6,120,000 | 3,930,000 | 1,560,000 | 4,550,000 | 3,650,000 |
| April | 6,160,000 | 3,900,000 | 2,010,000 | 4,380,000 | 2,680,000 |
| May | 7,850,000 | 3,750,000 | 2,140,000 | 5,730,000 | 2,810,000 |
| June | 5,450,000 | 2,960,000 | 1,840,000 | 4,120,000 | 3,360,000 |
| July | 4,220,000 | 3,520,000 | 1,610,000 | 3,350,000 | 2,460,000 |
| August | 4,310,000 | 4,150,000 | 1,550,000 | 2,630,000 | 5,210,000 |
| September | 5,780,000 | 4,570,000 | 2,110,000 | 2,540,000 | 2,990,000 |
| October | 5,360,000 | 3,390,000 | 3,370,000 | 1,860,000 | 2,440,000 |
| November | 5,880,000 | 3,000,000 | 2,970,000 | 2,150,000 | 2,640,000 |
| December | 6,420,000 | 4,710,000 | 3,650,000 | 1,780,000 | 3,410,000 |
| **TOTAL** | 68,210,000 | 45,210,000 | 26,870,000 | 42,690,000 | 38,300,000 |

4. Can treated wastewater be substituted for potable water?

○ Yes ◉ No

## B. Reuse Data

1. Provide data on the types of recycling and reuse activities implemented during the current reporting period.

| Type of Reuse | Total Annual Volume (in gallons) |
|---|---|
| On-site irrigation | 0 |
| Plant wash down | 0 |
| Chlorination/de-chlorination | 0 |
| Industrial | 0 |
| Landscape irrigation (parks, golf courses) | 0 |
| Agricultural | 0 |
| Discharge to surface water | 0 |
| Evaporation pond | 0 |
| Other | 0 |
| **TOTAL** | 0 |

## C. Wastewater System Data Comment

Provide additional comments about wastewater system data below.

**You have completed the Utility Profile. Save and Print this form to submit with your Plan. Continue with the Water Conservation Plan Checklist to complete your Water Conservation Plan.**

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**Exhibit B**

**Water Conservation Plan Goals Table (TWDB-1964)**

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# WATER CONSERVATION PLAN
# 5- AND 10-YR GOALS FOR WATER SAVINGS

Facility Name: City of Huntington

Water Conservation Plan Year: 2015

| | Historic 5yr Average | Baseline | 5-yr Goal for year 2020 | 10-yr Goal for year 2025 |
|---|---|---|---|---|
| Total GPCD[1] | 106 | 110 | 95 | 84 |
| Residential GPCD[2] | 52 | 44 | 42 | 31 |
| Water Loss (GPCD)[3] | 22 | 23 | 16 | 10 |
| Water Loss (Percentage)[4] | 21 % | 21 % | 17 % | 12 % |

1. Total GPCD = (Total Gallons in System ÷ Permanent Population) ÷ 365
2. Residential GPCD = (Gallons Used for Residential Use ÷ Residential Population) ÷ 365
3. Water Loss GPCD = (Total Water Loss ÷ Permanent Population) ÷ 365
4. Water Loss Percentage = (Total Water Loss ÷ Total Gallons in System) x 100; or (Water Loss GPCD ÷ Total GPCD) x 100

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**Exhibit C**

**Water Conservation Plan Annual Report (TWDB-1966)**

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# Water Conservation Plan Annual Report
# Retail Water Supplier

## CONTACT INFORMATION

Name of Entity: _____

Public Water Supply Identification Number (PWS ID): TX0030002

Certificate of Convenience and Necessity (CCN) Number: _____

Surface Water Rights ID Number: _____

Wastewater ID Number: _____

Check all that apply:

☐ Retail Water Supplier

☐ Wholesale Water Supplier

☐ Wastewater Treatment Utility

Address: 107 W. Lufkin Ave, Ste. 200 City: Lufkin Zip Code: 75904

Email: dhays@ksaeng.com Telephone Number: 936.637.6061

Regional Water Planning Group: _____ Map

Groundwater Conservation District: _____ Map

Form Completed By: _____ Title: Sr. Project Engineer

Date: 09/16/2016

Reporting Period (**calendar year**):

Period Begin (mm/yyyy) _____ Period End (mm/yyyy) _____

Check all of the following that apply to your entity:

☐ Receive financial assistance of $500,000 or more from TWDB

☐ Have 3,300 or more retail connections

☐ Have a water right with TCEQ

# SYSTEM DATA

**Retail Customer Categories***

- Residential Single Family
- Residential Multi-family
- Industrial
- Commercial
- Institutional
- Agricultural

**Recommended Customer Categories for classifying your customer water use. For definitions, refer to Guidance and Methodology on Water Conservation and Water Use.*

1. For this reporting period, select the category(s) used to classify customer water use:

☐ Residential Single Family
☐ Residential Multi-family
☐ Industrial
☐ Commercial
☐ Institutional
☐ Agricultural

2. For this reporting period, enter the number of connections for and the gallons of **metered retail water** used by each category. If the Customer Category does not apply, enter zero or leave blank. These numbers should be the same as those reported on the Water Use Survey.

| Retail Customer Category | Number of Connections | Gallons Metered |
|---|---|---|
| Residential Single Family | | |
| Residential Multi-family | | |
| Institutional | | |
| Commercial | | |
| Industrial | | |
| Agricultural | | |
| **Total Retail Water Metered**[1] | 0 | 0 |

1. Residential + Industrial + Commercial + Institutional + Agricultural = Total Retail Water Metered

# Water Use Accounting

| | Total Gallons During the Reporting Period |
|---|---|
| **/2ŠúŠŘ LyLJdzű ±2fdzY'Ŝ:** The volume of treated water input to the distribution system from own production facilities. *Same as Line 13b 2ŤűKŜ Water Loss Audit.* | |
| **/2ŠúŠŘ Treated Purchased Water ±2fdzY'Ŝ:** The amount of treated purchased wholesale water transferred into the utility's distribution system from other water suppliers system. *Same as Line 14b of the ² l·ŭŜ [2ăă Audit.* | |
| **/2ŠúŠŘ ¢Sl·ŭŜŘ Wholesale Water {l·fŜă ±2fdzY'Ŝ:** The amount of treated wholesale water transferred out of the utility's distribution system, although it may be in the system for a brief time for conveyance reasons. *Same as Line 15b of the Water Loss Audit.* | |
| **Total System Input Volume:** This is the sum of the corrected input volume plus corrected treated purchased water volume minus corrected treated wholesale water sales volume. *Same as Line 16 of the Water Loss Audit.* | 0<br>Produced + Imported – Exported = System Input |
| **Billed Metered:** All retail water sold and metered. *Same as Line 17 of the Water Loss Audit (Calculated from values entered on Page 2).* | 0 |
| **Other Authorized Consumption:** Water that is authorized for other uses such as back flushing, line flushing, storage tank cleaning, fire department use, municipal government offices or municipal golf courses/parks. This water may be metered or unmetered. *Same as the total of Lines 18, 19, and 20 of the water loss audit.* | |
| **Total Authorized /2yădzY'LJűA2y':** All water that has been authorized for use. *Same as Line 21 of Water Loss Audit* | 0<br>Total Billed and Metered Retail Water + Other Authorized Consumption = Total Authorized Use |
| **¢2ű·f Apparent Losses:** Water that has been consumed but not properly measured or billed (losses due to customer meter inaccuracy, systematic data handling discrepancy and/or unauthorized consumption such as theft). *Same as Line 27 of the Water Loss Audit.* | |
| **¢2ű·f Real Losses**: Physical losses from the distribution system prior to reaching the customer destination (losses due to reported breaks and leaks, physical losses from system or mains and/or storage overflow). *Same as line 30 of the water loss audit.* | |

| | |
|---|---|
| **Total Water Loss** | 0<br>Apparent + Real = Total Water Loss |

## Targets and Goals

Provide the **specific and quantified five and ten-year targets** as listed in your current Water Conservation Plan. Target dates and numbers should match your current Water Conservation Plan.

| Achieve Date | Target for Total GPCD | Target for Residential GPCD | Target for Water Loss (expressed in GPCD) | Target for Water Loss Percentage (expressed in percentage) |
|---|---|---|---|---|
| **Five-year target date:** _____ | | | | |
| **Ten-year target date:** _____ | | | | |

## Gallons per Capita per Day (GPCD) and Water Loss

Provide current GPCD and water loss totals. To see if you are making progress towards your stated goals, compare these totals to the above targets and goals. Provide the population and residential water use of your service area.

| Total System Input in Gallons | Permanent Population[1] | Total GPCD |
|---|---|---|
| 0<br>Water Produced + Wholesale Imported - Wholesale Exported | | 106<br>(System Input ÷ Permanent Population) ÷ 365 |

1. Permanent Population is the total permanent population of the service area, including single family, multi-family, and group quarter populations.

| Residential Use in Gallons (Single Family + Multi-family ) | Residential Population[2] | Residential GPCD |
|---|---|---|
| 0 | | (Residential Use ÷ Residential Population) ÷ 365 |

2. Residential Population is the total residential population of the service area, including only single family and multi-family populations.

| Total Water Loss in Gallons | Permanent Population | Water Loss | |
|---|---|---|---|
| | | GPCD[3] | Percent[4] |
| 0<br>Apparent + Real = Total Water Loss | | | |

3. (Total Water Loss ÷ Permanent Population) ÷ 365 = Water Loss GPCD
4. (Total Water Loss ÷ Total System Input) x 100 = Water Loss Percentage

# Water Conservation Programs and Activities

*As you complete this section, review your utility's water conservation plan to see if you are making progress towards meeting your stated goals.*

1. What year did your entity adopt or revise the most recent Water Conservation Plan? _____

2. Does the Plan incorporate Best Management Practices? ◯ Yes ◯ No

3. Using the table below, select the types of Best Management Practices or water conservation and reuse strategies actively administered during this reporting period and estimate the savings incurred in implementing water conservation and reuse activities and programs. Leave fields blank if unknown. **Please separate reuse volumes from gallons saved.**

Methods and techniques for determining gallons saved are unique to each utility as they conduct internal effective cost analyses and long-term financial planning. Texas Best Management Practices can be found at TWDB's Water Conservation Best Management Practices webpage. The Alliance for Water Efficiency Water Conservation Tracking Tool may offer guidance on determining and calculating savings for individual BMPs.

| Best Management Practice | Check if Implemented | Estimated Gallons Saved | Estimated Gallons Reused |
|---|---|---|---|
| **Conservation Analysis and Planning** | | | |
| Conservation Coordinator | ☐ | | |
| Cost Effective Analysis | ☐ | | |
| Water Survey for Single Family and Multi-family Customers | ☐ | | |
| **Financial** | | | |
| Wholesale Agency Assistance Programs | ☐ | | |
| Water Conservation Pricing | ☐ | | |
| **System Operations** | | | |
| Metering New Connections and Retrofitting Existing Connections | ☐ | | |
| System Water Audit and Loss Control | ☐ | | |
| **Landscaping** | | | |
| Landscape Irrigation Conservation and Incentives | ☐ | | |
| Athletic Fields Conservation | ☐ | | |
| Golf Course Conservation | ☐ | | |
| Park Conservation | ☐ | | |
| Residential Landscape Irrigation Evaluation | ☐ | | |
| **Education and Public Awareness** | | | |
| School Education | ☐ | | |
| Public Information | ☐ | | |
| Small Utility Outreach and Education | ☐ | | |
| Partnerships with Nonprofit Organizations | ☐ | | |
| **Rebate, Retrofit, and Incentive Programs** | | | |
| Conservation Programs for ICI Accounts | ☐ | | |

| | | | |
|---|---|---|---|
| Residential Clothes Washer Incentive Program | ☐ | | |
| Water Wise Landscape Design and Conversion Programs | ☐ | | |
| Showerhead, Aerator, and Toilet Flapper Retrofit | ☐ | | |
| Residential Toilet Replacement Programs | ☐ | | |
| ICI Incentive Programs | ☐ | | |
| **Conservation Technology & Reuse** | | | |
| New Construction Graywater | ☐ | | |
| Rainwater Harvesting and Condensate Reuse | ☐ | | |
| Reuse for On-site Irrigation | ☐ | | |
| Reuse for Plant Washdown | ☐ | | |
| Reuse for Chlorination/Dechlorination | ☐ | | |
| Reuse for Industry | ☐ | | |
| Reuse for Agriculture | ☐ | | |
| **Regulatory and Enforcement** | | | |
| Prohibition on Wasting Water | ☐ | | |
| Other, please describe: | | | |
| **Total Volumes** | | 0 | 0 |

4. For this reporting period, estimate the savings from water conservation activities and programs.

| Gallons Saved/Conserved | Gallons Recycled/Reused | Total Volume of Water Saved[5] | Dollar Value of Water Saved[6] |
|---|---|---|---|
| 0 | 0 | 0 | |

5. Estimated Gallons Saved/Conserved + Estimated Gallons Recycled/Reused = Total Volume Saved
6. Estimate this value by taking into account water savings, the cost of treatment or purchase of water, and deferred capital costs due to conservation.

Comments or Explanations Regarding Data Entered in Sections Above

6. During this reporting period, did your rates or rate structure change? ◯ Yes ◉ No

Select the type of rate pricing structures used. Check all that apply.

| | | |
|---|---|---|
| ☐ Uniform Rates | ☐ Water Budget Based Rates | ☐ Surcharge - seasonal |
| ☐ Flat Rates | ☐ Excess Use Rates | ☐ Surcharge - drought |
| ☐ Inclining/Inverted Block Rates | ☐ Drought Demand Rates | ☐ Other, please describe: |
| ☐ Declining Block Rates | ☐ Tailored Rates | |
| ☐ Seasonal Rates | ☐ Surcharge - usage demand | |

7. For this reporting period, select the public awareness or educational activities used.

| | Implemented | Number/Unit |
|---|---|---|
| *Example: Brochures Distributed* | √ | *10,000/year* |
| *Example: Educational School Programs* | √ | *50 students/month* |
| Brochures Distributed | ☐ | _____ |
| Messages Provided on Utility Bills | ☐ | _____ |
| Press Releases | ☐ | _____ |
| TV Public Service Announcements | ☐ | _____ |
| Radio Public Service Announcements | ☐ | _____ |
| Educational School Programs | ☐ | _____ |
| Displays, Exhibits, and Presentations | ☐ | _____ |
| Community Events | ☐ | _____ |
| Social Media campaigns | ☐ | _____ |
| Facility Tours | ☐ | _____ |
| Other : | ☐ | _____ |

# Leak Detection and Water Loss

1. During this reporting period, how many leaks were repaired in the system or at service connections? _____

   Select the main cause(s) of water loss in your system.

   - ☐ Leaks and breaks
   - ☐ Un-metered utility or city uses
   - ☐ Master meter problems
   - ☐ Customer meter problems
   - ☐ Record and data problems
   - ☐ Other: _____
   - ☐ Other: _____

2. For this reporting period, provide the following information regarding meter repair:

| Type of Meter | Total Number | Total Tested | Total Repaired | Total Replaced |
|---|---|---|---|---|
| Production Meters | | | | |
| Meters larger than 1 ½" | | | | |
| Meters 1 ½ or smaller | | | | |

3. Does your system have automated meter reading? ○ Yes ◉ No

# Program Effectiveness and Drought

1. In your opinion, how would you rank the effectiveness of your conservation activities?

| Customer Classification | Less Than Effective | Somewhat Effective | Highly Effective | Does Not Apply |
|---|---|---|---|---|
| Residential Customers | ○ | ○ | ○ | ◉ |
| Industrial Customers | ○ | ○ | ○ | ◉ |
| Institutional Customers | ○ | ○ | ○ | ◉ |
| Commercial Customers | ○ | ○ | ○ | ◉ |
| Agricultural Customers | ○ | ○ | ○ | ◉ |

2. During the reporting period, did you implement your Drought Contingency Plan?

◉ Yes ○ No

If yes, how many days were water use restrictions in effect? _____

If yes, check the reason(s) for implementing your Drought Contingency Plan.

- ☐ Water Supply Shortage
- ☐ High Seasonal Demand
- ☐ Capacity Issues
- ☐ Equipment Failure
- ☐ Impaired Infrastructure
- ☐ Other:

3. Select the areas for which you would like to receive more technical assistance:

- ☐ Best Management Practices
- ☐ Drought Contingency Plans
- ☐ Landscape Irrigation
- ☐ Leak Detection and Equipment
- ☐ Rainwater Harvesting
- ☐ Rate Structures
- ☐ Educational Resources
- ☐ Water Conservation Annual Reports
- ☐ Water Conservation Plans
- ☐ Water IQ: Know Your Water
- ☐ Water Loss Audits
- ☐ Recycling and Reuse

**SUBMIT**

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**Exhibit D**

**Water Rate Structure**

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# CITY OF HUNTINGTON
# UTILITY FEE SCHEDULE

## Tap Fees

(*CAP = Contractor's Agreed Price)

| | |
|---|---|
| Water Tap – Standard Size w/o Road Bore | $550 |
| Water Tap – Standard Size w/Road Bore | $550 + CAP for Bore |
| Sewer Tap – w/o Road Bore | $400 |
| Sewer Tap – w/Road Bore | $400 + CAP for Bore |
| Gas Tap – w/o Road Bore | $500 |
| Gas Tap – w/Road Bore | $500 + CAP for Bore |

## Water Rates

| Type of Service | Flat Rate | Cost per 1,000 Gallons |
|---|---|---|
| Inside Residential | $15.50 | $4.71 |
| Outside Residential | $27.00 | $4.85 |
| Inside Commercial | $24.00 | $4.71 |
| Outside Commercial | $30.00 | $4.85 |
| School District | $60.00 | $4.57 |

## Sewer Rates

| Type of Service | Flat Rate | Commercial & School Rates After first 9,000 Gallons |
|---|---|---|
| Inside Residential | $31.00 | N/A |
| Outside Residential | $55.00 | N/A |
| Inside Residential (over 65) | $20.00 | N/A |
| Outside Residential (over 65) | $38.00 | N/A |
| Inside Commercial | $44.00 | $4.33 |
| Outside Commercial | $100.00 | $4.33 |
| School District | $90.00 | $4.33 |

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**Exhibit E**

**Plan Adoption Ordinance**

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**RESOLUTION No.** 17425-1

**A RESOLUTION OF THE CITY OF HUNTINGTON, ADOPTING A WATER CONSERVATION AND EMERGENCY WATER MANAGEMENT PLAN; PROVIDING FOR THE REPEAL OF ALL RESOLUTIONS IN CONFLICT; AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS,** it is necessary that a Water Conservation Plan be adopted by the City of Huntington; and

**WHEREAS,** such a program has been formally submitted to the Texas Water Development Board for approval; and

**WHEREAS,** the City Council of the City of Huntington believes it is in the best interest of the City to adopt such plan;

**NOW, THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF HUNTINGTON,**

**Section 1:** That the City of Huntington Water Conservation and Emergency Water Management Plan attached hereto as Exhibit A and made part hereof for all purposes be, and the same is hereby, adopted as the official policy of the City.

**Section 2:** That all resolutions of the City in conflict with the provisions of this resolution be, and the same are hereby, repealed and all other resolutions of the City not in conflict with the provisions of this resolution shall remain in full force and effect.

**Section 3:** Should any paragraph, sentence, subdivision, clause, phrase, or section of this resolution be adjudged or held to be unconstitutional, illegal, or invalid, the same shall not affect the validity of this resolution as a whole or any part or provision thereof, other than the part so declared to be invalid, illegal, or unconstitutional.

**Section 4:** Any person, firm, or corporation violating any of the provisions of the mandatory water use restrictions which have been formally initiated by the City and contained in the City of Huntington Water Conservation and Emergency Water Management Plan as adopted hereby shall be subject to price rationing. Price rationing shall be initiated in Phase 4 and implement, at a minimum, a drought surcharge of $4.00 per thousand gallons used in excess of 5,000 gallons used per household.

**Section 5:** This resolution shall take effect immediately form and after its passage and the publication of the caption, as the law in such cases provide.

**PASSED AND APPROVED** this the 25th day of April, 2017.

Frank Harris
Mayor, City of Huntington

ATTEST:

City Secretary

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**Appendix A**

**TECQ Water Conservation Plan Rules (30 TAC 288.2)**

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# Texas Administrative Code

| | |
|---|---|
| TITLE 30 | ENVIRONMENTAL QUALITY |
| PART 1 | TEXAS COMMISSION ON ENVIRONMENTAL QUALITY |
| CHAPTER 288 | WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS |
| SUBCHAPTER A | WATER CONSERVATION PLANS |
| RULE §288.2 | Water Conservation Plans for Municipal Uses by Public Water Suppliers |

(a) A water conservation plan for municipal water use by public water suppliers must provide information in response to the following. If the plan does not provide information for each requirement, the public water supplier shall include in the plan an explanation of why the requirement is not applicable.

(1) Minimum requirements. All water conservation plans for municipal uses by public water suppliers must include the following elements:

(A) a utility profile in accordance with the Texas Water Use Methodology, including, but not limited to, information regarding population and customer data, water use data (including total gallons per capita per day (GPCD) and residential GPCD), water supply system data, and wastewater system data;

(B) a record management system which allows for the classification of water sales and uses into the most detailed level of water use data currently available to it, including, if possible, the sectors listed in clauses (i) - (vi) of this subparagraph. Any new billing system purchased by a public water supplier must be capable of reporting detailed water use data as described in clauses (i) - (vi) of this subparagraph:

(i) residential;

(I) single family;

(II) multi-family;

(ii) commercial;

(iii) institutional;

(iv) industrial;

(v) agricultural; and,

(vi) wholesale.

(C) specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use in total GPCD and residential GPCD. The goals established by a public water supplier under this subparagraph are not enforceable;

(D) metering device(s), within an accuracy of plus or minus 5.0% in order to measure and account for the amount of water diverted from the source of supply;

(E) a program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement;

(F) measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections; abandoned services; etc.);

(G) a program of continuing public education and information regarding water conservation;

(H) a water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water;

(I) a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin in order to optimize available water supplies; and

(J) a means of implementation and enforcement which shall be evidenced by:

(i) a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the water supplier; and

(ii) a description of the authority by which the water supplier will implement and enforce the conservation plan; and

(K) documentation of coordination with the regional water planning groups for the service area of the public water supplier in order to ensure consistency with the appropriate approved regional water plans.

(2) Additional content requirements. Water conservation plans for municipal uses by public drinking water suppliers serving a current population of 5,000 or more and/or a projected population of 5,000 or more within the next ten years subsequent to the effective date of the plan must include the following elements:

(A) a program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system;

(B) a requirement in every wholesale water supply contract entered into or renewed after official adoption of the plan (by either ordinance, resolution, or tariff), and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements in this chapter. 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.

(3) Additional conservation strategies. Any combination of the following strategies shall be selected by the water supplier, in addition to the minimum requirements in paragraphs (1) and (2) of this subsection, if they are necessary to achieve the stated water conservation goals of the plan. The commission may require that any of the following strategies be implemented by the water supplier if the commission determines that the strategy is necessary to achieve the goals of the water conservation plan:

(A) conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;

(B) adoption of ordinances, plumbing codes, and/or rules requiring water-conserving plumbing fixtures to be installed in new structures and existing structures undergoing substantial modification or addition;

(C) a program for the replacement or retrofit of water-conserving plumbing fixtures in existing structures;

(D) reuse and/or recycling of wastewater and/or graywater;

(E) a program for pressure control and/or reduction in the distribution system and/or for customer connections;

(F) a program and/or ordinance(s) for landscape water management;

(G) a method for monitoring the effectiveness and efficiency of the water conservation plan; and

(H) any other water conservation practice, method, or technique which the water supplier shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

(b) A water conservation plan prepared in accordance with 31 TAC §363.15 (relating to Required Water Conservation Plan) of the Texas Water Development Board and substantially meeting the requirements of this section and other applicable commission rules may be submitted to meet application requirements in accordance with a memorandum of understanding between the commission and the Texas Water Development Board.

(c) A public water supplier for municipal use shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The public water supplier for municipal use shall review and update the next

revision of its water conservation plan every five years to coincide with the regional water planning group.

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**Source Note:** The provisions of this §288.2 adopted to be effective May 3, 1993, 18 TexReg 2558; amended to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective October 7, 2004, 29 TexReg 9384; amended to be effective December 6, 2012, 37 TexReg 9515

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**Appendix B**

**TECQ Drought Contingency Plan Rules (30 TAC 288.20)**

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# Texas Administrative Code

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| TITLE 30 | ENVIRONMENTAL QUALITY |
| PART 1 | TEXAS COMMISSION ON ENVIRONMENTAL QUALITY |
| CHAPTER 288 | WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS |
| SUBCHAPTER B | DROUGHT CONTINGENCY PLANS |
| RULE §288.20 | Drought Contingency Plans for Municipal Uses by Public Water Suppliers |

(a) A drought contingency plan for a retail public water supplier, where applicable, must include the following minimum elements.

(1) Minimum requirements. Drought contingency plans must include the following minimum elements.

(A) Preparation of the plan shall include provisions to actively inform the public and affirmatively provide opportunity for public input. Such acts may include, but are not limited to, having a public meeting at a time and location convenient to the public and providing written notice to the public concerning the proposed plan and meeting.

(B) Provisions shall be made for a program of continuing public education and information regarding the drought contingency plan.

(C) The drought contingency plan must document coordination with the regional water planning groups for the service area of the retail public water supplier to ensure consistency with the appropriate approved regional water plans.

(D) The drought contingency plan must include a description of the information to be monitored by the water supplier, and specific criteria for the initiation and termination of drought response stages, accompanied by an explanation of the rationale or basis for such triggering criteria.

(E) The drought contingency plan must include drought or emergency response stages providing for the implementation of measures in response to at least the following situations:

(i) reduction in available water supply up to a repeat of the drought of record;

(ii) water production or distribution system limitations;

(iii) supply source contamination; or

(iv) system outage due to the failure or damage of major water system components (e.g., pumps).

(F) The drought contingency plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. The entity preparing the plan shall establish the targets. The goals established by the entity under this subparagraph are not enforceable.

(G) The drought contingency plan must include the specific water supply or water demand management measures to be implemented during each stage of the plan including, but not limited to, the following:

(i) curtailment of non-essential water uses; and

(ii) utilization of alternative water sources and/or alternative delivery mechanisms with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.).

(H) The drought contingency plan must include the procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of the public.

(I) The drought contingency plan must include procedures for granting variances to the plan.

(J) The drought contingency plan must include procedures for the enforcement of mandatory water use restrictions, including specification of penalties (e.g., fines, water rate surcharges, discontinuation of service) for violations of such restrictions.

(2) Privately-owned water utilities. Privately-owned water utilities shall prepare a drought contingency plan in accordance with this section and incorporate such plan into their tariff.

(3) Wholesale water customers. Any water supplier that receives all or a portion of its water supply from another water supplier shall consult with that supplier and shall include in the drought contingency plan appropriate provisions for responding to reductions in that water supply.

(b) A wholesale or retail water supplier shall notify the executive director within five business days of the implementation of any mandatory provisions of the drought contingency plan.

(c) The retail public water supplier shall review and update, as appropriate, the drought contingency plan, at least every five years, based on new or updated information, such as the adoption or revision of the regional water plan.

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**Source Note:** The provisions of this §288.20 adopted to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective October 7, 2004, 29 TexReg 9384