

**CITY OF SEABROOK
ORDINANCE NO. 2024-12
AMENDING THE WATER CONSERVATION AND
DROUGHT CONTINGENCY PLAN**

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SEABROOK, TEXAS AMENDING CHAPTER 95, "UTILITIES", ARTICLE III, "WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN" OF THE CODE OF ORDINANCES OF THE CITY OF SEABROOK, TEXAS BY DELETING IT IN ITS ENTIRETY, SECTIONS 95-76 THROUGH 95-85 WHICH CONTAINS THE CITY'S PREVIOUS WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN, AND REPLACING IT WITH AN UPDATED SECTION 95-76, ENTITLED SEABROOK WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN WHICH CONTAINS THE UTILITY PROFILE USING THE PREVIOUS FIVE YEARS' WATER USE DATA; UPDATING THE WATER CONSERVATION GOALS BASED ON THE HISTORIC USE DATA; SHOWING THE UPDATE TO THE WATER RATE STRUCTURE; AND BY INCORPORATING THE ENTIRE UPDATED PLAN INTO THE CODE; PROVIDING A PENALTY IN AN AMOUNT NOT TO EXCEED \$500.00 FOR VIOLATION OF ANY PROVISION HEREOF BY INCLUSION INTO THE CODE; REPEALING ALL ORDINANCES OR PARTS OF ORDINANCES INCONSISTENT OR IN CONFLICT HEREWITH; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City of Seabrook, Texas (the "City") recognizes that the amount of water available to the City and its water customers is limited; and,

WHEREAS, the City recognized that due to normal limitations due to drought conditions, system failures and other acts of God which may occur, the City cannot always guarantee and uninterrupted water supply for all purposes; and,

WHEREAS, applicable law and regulations of the Texas Commission on Environmental Quality require that the City update and adopt a Water Conservation and Drought Contingency Plan (Plan) every five years; and,

WHEREAS, the City Council of the City of Seabrook approved Ordinance 2009-02 on March 17, 2009, which adopted the Water Conservation and Drought Contingency Plan by reference only, and it has been determined that for easy reference by the public, the Plan document shall now be contained in full in the Seabrook Code of Ordinances; and,

WHEREAS, the City Council of the City of Seabrook approved Ordinance 2012-13, on May 15th, 2012, which added a new section to the Seabrook Code of Ordinances entitled, "Drought Contingency Plan for Wholesale Public Water Supplier"; and,

WHEREAS, the City Council of the City of Seabrook approved Ordinance 2018-05, on February 6th, 2018, which adopted the amended Water Conservation and Drought Contingency Plan; and,

WHEREAS, the Plan has been updated to update the Utility Profile using the previous five years' water use data, to update the Water Conservation Goals based on the historic use data; and to show the update to the Water Rate Structure.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF SEABROOK, STATE OF TEXAS:

SECTION 1. FINDINGS OF FACT.

That the facts and matters set forth in the preamble of this Ordinance are hereby found to be true and correct.

SECTION 2. AMENDMENT TO THE SEABROOK CODE OF ORDINANCE, CHAPTER 95 ENTITLED "UTILITIES", ARTICLE III, "WATER CONSERVATION" IS AMENDED BY UPDATING SECTION 95-80, WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN", BY UPDATING THE UTILITY PROFILE USING THE PREVIOUS FIVE YEARS' WATER USE DATA; UPDATING THE WATER CONSERVATION GOALS BASED ON THE HISTORIC USE DATA; AND PROVIDING AN UPDATE TO THE WATER RATE STRUCTURE, AS CONTAINED IN EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE.

SECTION 3. INCORPORATION INTO THE CODE, PENALTY CLAUSE.

This Ordinance is hereby incorporated and made a part of the Seabrook City Code. Violation of this ordinance is subject to the penalty section of said Code and Ordinance, Section 1-15 "General Penalty and 11.06, "Criminal Enforcement" which provides that any person who shall violate any provision of this Ordinance shall be deemed guilty of an offense and, upon conviction, shall be fined in an amount not to exceed \$500.00. Each day of violation shall constitute a separate offense.

SECTION 4. REPEAL OF CONFLICTING ORDINANCES.

All ordinances or parts of ordinances in conflict or inconsistent with this Ordinance are hereby expressly repealed.

SECTION 5. SEVERABILITY.

In the event any clause phrase, provision, sentence, or part of this Ordinance or the application of the same to any person or circumstances shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair, or invalidate this Ordinance as a whole or any part or provision hereof other than the part declared to be invalid or unconstitutional; and the City Council of the City of Seabrook, Texas declares that it would have passed each and every part of the same notwithstanding the omission of any such part thus declared to be invalid or unconstitutional, whether there be one or more parts.

[SIGNATURES ARE ON FOLLOWING PAGE]

SECTION 6. NOTICE.

The City Secretary shall give notice of the enactment of this Ordinance by promptly publishing it or its descriptive caption and penalty after final passage in the official newspaper of the City; the Ordinance to take effect upon publication.

PASSED, APPROVED, AND ADOPTED on first reading with a quorum present, by an affirmative vote of a majority of Councilmembers present, in accordance with Seabrook City Charter Section 2.10 on this 7th day of May 2024.

PASSED, APPROVED, AND ADOPTED, as revised on final reading with a quorum present, by an affirmative vote of a majority of Councilmembers present, in accordance with Seabrook City Charter Section 2.10 on this 2nd day of July 2024.

BY: Thomas G. Kolupski

Thomas G. Kolupski
Mayor

ATTEST:

By: Rachel Lewis
Rachel Lewis
City Secretary

APPROVED AS TO FORM:

By: David Olson
David Olson
City Attorney



EXHIBIT A



CITY OF SEABROOK
1700 First Street, Seabrook, Texas 77586

CCN# 10858
PW# 1010062

WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN

May 2024

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1.0 Introduction; Declaration of Policy, Purpose, and Intent

Water conservation is not limited to the recurring periods of Texas drought. Conserving water and avoiding water waste are important for the long-term sustainability of the community even in times of abundant rainfall. The City of Seabrook recognizes that water is an essential resource for sustaining the growth and vitality of the city, the region, and the State of Texas.

This Plan describes both the city's long-term commitment to conserving water resources for future generations and the need to manage water demands during short-term conditions when water supplies are limited.

The City of Seabrook has adopted this Water Conservation / Drought Contingency Plan as a comprehensive set of strategies and regulations on the delivery and consumption of water to conserve the available water supply and to protect the integrity of water supply infrastructure, particularly facilities critical for domestic water supply, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety. It is also the intent of the Plan to minimize the adverse impacts of water supply shortage or other water supply emergency conditions.

The authority to implement and enforce the Water Conservation / Drought Contingency Plan is established in Chapter 95, Article III, Sec. 95-76 of the City of Seabrook Code. The scope of authority applies to all persons and premises that obtain water directly or indirectly from the City.

Water supply has always been a key issue in the development of Texas. In recent years, the increasing population and economic development in the Southeast Texas region have led to growing demands for water. The latter half of the twentieth century saw the development of local and less expensive sources of water supply. Additional supplies to meet higher demands will be expensive and difficult to develop. Therefore, it is important to make efficient use of existing supplies. This will delay the need for new supplies, minimize the environmental impacts associated with developing new supplies, and delay the high cost of additional water supply development.

Recognizing the need for efficient use of existing water supplies, the Texas Commission on Environmental Quality (TCEQ) has developed guidelines and requirements governing the development of water conservation and drought contingency plans for public water suppliers. The City of Seabrook has adopted this Water Conservation / Drought Contingency Plan pursuant to TCEQ guidelines and requirements.

2.0 Objectives

2.1 The objectives of the water conservation plan are to:

- Reduce water consumption
- Reduce the loss and waste of water
- Improve efficiency in the use of water, and
- Extend the life of current regional water supplies by reducing the rate of growth in per capita demand.

2.2 The objectives of the drought contingency plan are to:

- Conserve the available water supply in times of drought and emergency
- Maintain supplies for domestic water use, sanitation, and fire protection
- Protect and preserve public health, welfare, and safety
- Minimize the adverse impacts of water supply shortages; and
- Minimize the adverse impacts of emergency water conditions

3.0 Water Conservation Plan Content

3.1 Utility Profile

Table 3.1 below along with Appendix C summarizes key facts of the Water Utility Profile.

3.2 Specification of Water Conservation Goals

Table 3.2 shows historical per capita municipal water use for the City of Seabrook. Water use is shown in units of gallons per capita per day (GPCD). Per capita municipal water use is total municipal water sold divided by population.

Projected per capita uses are of Seabrook projections and are intended to be used for drier than average seasons. Per capital municipal water use in a year with normal or high precipitation during the summer should be less than projected here.

**Table 3.1
Water Utility Profile Summary**

Water Service Area	12.5 square miles
Miles of Distribution Pipe	56 miles
Water Supply Source(s)	City of Seabrook – 3 ground water wells (each 1,200 gpm)
Population	2023 population = 13,927 2030 population = 16,219 2040 population = 20,161
Connections	7,002 in 2023 (Single fam., Multi-fam., Com., Institutional and Ag.) Total Increase in Connections since 2016 = 546

Water Use Information

Year Use (Gallons)	Estimated Population	Water Loss (GPCD)	Peak Day in MGD
(2019) 600,459,000	14,291	10	2.374
(2020) 660,659,000	14,291	11	2.567
(2021) 605,616,000	13,927	9	2.527
(2022) 630,233,000	13,560	12	2.643
(2023) 612,536,000	13,927	11	2.836

Water Treatment System

City of Pasadena’s Subscription = 5.0 million gallons per day.

City of Seabrook’s 3 ground water wells = 60 million gallons per year.

Total Annual Wastewater Flow =404.827 MG in 2023.

The City of Seabrook projections include the impact of low-flow plumbing fixtures and water conservation measures that have been enacted through building code amendments and state and federal legislation but do not include the effect of water conservation measures recommended in this plan. Table 3.2 shows the projected per capita water use after implementation of this water conservation and drought contingency plan.

In adopting this Plan:

- The City of Seabrook has established a 5 and 10 year goal for total per capita water consumption at 100 GPCD and 98 GPCD (respectively) based on historic 5 year averages as shown in Table 3.2.
- The City of Seabrook has established a 5 and 10 year goal for residential per capita water consumption at 70 GPCD and 68 GPCD (respectively) based on historic 5 year averages as shown in Table 3.2.

Table 3.2
Historical Total and Residential Per Capita Use and Water Conservation Goals

	(year) GPCD
Historical Total Per Capita Use	(2019) 98
	(2020) 110
	(2021) 104
	(2022) 109
	(2023) 102
Historical Residential Per Capita Use	(2019) 66
	(2020) 75
	(2021) 70
	(2022) 74
	(2023) 73
Historic Total Per Capita 5 Yr. Average	105 GPCD
5 Yr. Total Per Capita Water Use Goal	100 GPCD
10 Yr. Total Per Capita Water Use Goal	98 GPCD
Historic Residential Per Capita 5 Yr. Average	72 GPCD
5 Yr. Residential Per Capita Water Use Goal	70 GPCD
10 Yr. Residential Per Capita Water Use Goal	68 GPCD

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

Name: City of Seabrook

Water Conservation Plan Year: 2023

	Historic 5-yr Average	Baseline*	5-yr Goal for year <u>2028</u>	10-yr Goal for year <u>2033</u>
Total (GPCD) ¹	105	100	100	98
Residential (GPCD) ²	72	80	70	68
Water Loss (GPCD) ³	11	10	7	6
Water Loss (Percentage) ⁴	10 %	10 %	7 %	6 %

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

GPCD - Gallons Per Capita Per Day

*A base use figure, or baseline, should be included to calculate your estimated savings. Consider state and regional targets and goals, local climate, and demographics (i.e. wet year versus dry year, high usage versus low usage)

The city's water conservation goals include the following:

- Maintain the city's ongoing meter replacement program (Section 3.4)
- Reach a level of water loss in the system of 7 GPCD in 2024 and subsequent years (Section 3.5).
- Raise public awareness of water conservation and encourage responsible public behavior through a public education and information program as discussed in Section 3.6.
- Decrease outdoor water use by implementing a landscape irrigation systems program (Section 5.3).

3.3 Accurate Metering of Raw Water Supplies and Treated Water Deliveries

The City of Seabrook uses raw water meters at each wellhead and the City of Pasadena meters the treated water deliveries to Red Bluff and Todville delivery points. Each meter has an accuracy of plus or minus 3 percent. The City's meters are calibrated on an annual basis to maintain the required accuracy and are repaired and/or replaced as needed.

3.4 Metering of Customer and Public Uses and Meter Testing, Repair and Replacement

Water usage for all customers of the City of Seabrook, including public and governmental users, is metered.

As part of the water conservation / drought contingency plan, the City of Seabrook replaces all customer meters in a 10 year cycle or if the meter reaches the end of its warranty period whichever comes first. In addition, any meters registering any unusual or questionable readings are tested and replaced if necessary.

3.5 Determination and Control of Water Loss

Water loss is the difference between water purchased/produced and metered deliveries to customers. Water loss can include several categories:

- Line flushing (unmetered item)
- Inaccuracies in customer meters (customer meters tend to run more slowly as they age and under-report actual use)
- Losses due to water main breaks and leaks in the water distribution system
- Theft
- Fire fighting (unmetered item)
- Inaccuracies of wholesale meters (plus or minus 2%)
- Inaccuracies of internal meters (plus or minus 3%); and
- Other unmetered uses

The City of Seabrook will begin to conduct water audits using AWWA guidelines in Water Audits and Leak Detection.

Water loss for the City of Seabrook has stayed at approximately 10 GPCD in the last five years. With the measures described in this plan, it is the goal of the City of Seabrook to achieve a water loss of 7 GPCD annually.

3.6 Continuing Public Education and Information Campaign

The continuing public education and information campaign on water conservation for the City of Seabrook includes the following elements.

- Promote the city's water conservation measures (presented in Sections, 3, 4 and 5.)
- Include message on water conservation periodically with water bills. The message would direct residents to the City's Water Conservation webpage and Leak Detection webpage.
- The City of Seabrook staff is available to make presentations on the importance of water conservation and ways to save water.
- Make the water conservation brochures and other water conservation materials available to the public.
- Make information on water conservation available online at <http://www.ci.seabrook.tx.us> and include information on water conservation and links to the TWDB and TCEQ web sites.

3.7 Non-Proportional Water Rate Structure

With the intent of encouraging water conservation and discouraging waste and excessive use of water, the City of Seabrook has adopted a water usage rate structure where the unit price of water increases with increasing water use. Water rates (2024) are shown in Table 3.3.

**Table 3.3
Monthly Customer Charges**

<i>Water rates for single meter residential and all commercial customers (single customer and multi customer commercial meters)</i>	
Meter size	Minimum bill (for first 2,000 gal.)
5/8"	\$21.60
3/4"	\$21.60
1"	\$54.02
1.5"	\$108.02
2"	\$172.84
3"	\$324.06
4"	\$540.12
6"	\$1,080.24
8"	\$1,728.38
10"	\$2,484.55
All over 2,000 gallons to 10,000 gallons	\$7.56 per thousand gallons
All over 10,000 gallons to 15,000 gallons	\$9.00 per thousand gallons
All over 15,000 gallons	\$10.75 per thousand gallons

<u><i>Water rates for multi-family meter customers</i></u>	
All gallons over the minimum allotment will be charged as follows:	A minimum charge of \$21.60 per month/per living unit. Minimum charge will include usage of up to 2,000 gallons per month, per unit
4,001 to 10,000 gallons	\$9.00 per thousand gallons
All over 10,000 gallons	\$9.00 per thousand gallons
<u><i>Water rates for multi-family meter customers (less than five units)</i></u>	
All gallons over the minimum allotment will be charged as follows:	a minimum charge of \$21.60 per month/per living unit. Minimum charge will include usage of up to 2,000 gallons per month, per unit.
4,001 to 10,000 gallons	\$9.00 per thousand gallons
All over 10,000 gallons	\$9.00 per thousand gallons

3.8 Implementation and Enforcement of the Water Conservation / Drought Contingency Plan

The ordinance of the City of Seabrook City Council adopting this Water Conservation / Drought Contingency Plan designates responsible officials to implement and enforce the Water Conservation / Drought Contingency Plan.

- Coordination with Regional Water Planning Group
- Additional required water conservation / drought contingency plan content

4.0 Additional Required Water Conservation Plan Content

4.1 Leak Detection and Repair Pressure Control

Measures to control water loss are part of the routine operations of the City of Seabrook. Meter readers watch for and report signs of illegal connections so they can be addressed quickly. Crews look for and report evidence of leaks in the water distribution system. Maintenance crews respond quickly to repair leaks reported by the public and city personnel. Areas of the water distribution system where numerous leaks and line breaks occur are targeted for replacement, as funds are available.

To further reduce water losses, the City of Seabrook maintains a proactive water loss program. As part of this program, the city responds to reports of leaks within 30

minutes when possible. The City also monitors through SCADA the two elevated storage tank water levels, ground storage tank water level, and distribution system pressure.

4.2 Record Management System

As required by TAC Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2(a)(1)(B), the record management system for the City of Seabrook records water received, water pumped, water delivered, and water sold; estimates water losses and allows for the separation of water sales and uses into residential, commercial, public / institutional, and industrial categories.

5.0 Optional Water Conservation Plan Content

5.1 Ordinances, Plumbing Codes, or Rules on Water-Conserving Fixtures

The State of Texas has required water-conserving fixtures in new construction and renovations since 1992. The state standards call for flows of no more than 2.5 gallons per minute (gpm) for faucets, 3.0 gpm for showerheads, and 1.6 gallons per flush for toilets. Similar standards are also required under federal law. These state and federal standards assure that all new construction and renovations in the City of Seabrook will use water-conserving fixtures.

5.2 Monitoring of Effectiveness and Efficiency - Annual Conservation Report

An annual report provided by the TWDB (Appendix H) will be used in the development of an annual conservation report for the City of Seabrook. The information for this form will be compiled by January 1st for the preceding calendar year and will be used by the city to monitor the effectiveness and efficiency of the water conservation program and to plan conservation related activities for the next year. The form records the water use by category, per capita municipal use, and unaccounted water for the current year and compares them to historical values.

5.3 Residential Landscape Irrigation Systems Program

The City of Seabrook will provide guidance to residential customers to improve the efficiency of their existing irrigation system as necessary. By improving the efficiency of an irrigation system, outdoor water usage can be reduced while maintaining a healthy landscape. The City's Water Conservation webpage lists irrigation tips to conserve water.

Upon approval of this plan, irrigation system equipment that shall be required on all newly installed irrigation systems shall be as follows.

- Rain and freeze shut-off device.
- Customers will be responsible for installation and maintenance of all water conservation devices.

6.0 Drought Contingency Plan

6.1 Introduction.

Droughts and other uncontrollable circumstances can disrupt the normal availability of water supplies from either ground or surface sources. During drought periods, consumer demand is typically from 15 – 25 percent higher than under normal conditions. Limitations on the supply of either ground or surface water, or on facilities to pump, treat, store or distribute water, can also present a public water supply utility with an emergency demand management situation.

The Seabrook Water Conservation Plan and Drought Contingency Plan is proposed as follows:

- 1) Trigger conditions signaling the start of an emergency period;
- 2) Demand reduction measures;
- 3) Information and education;
- 4) Penalties for violations; and
- 5) Emergency conservation water rates.

The specific trigger levels, reduction goals, information and education actions, penalties, and demand reduction measures for each emergency water demand management stages as well as implementation and termination procedures are listed below.

6.2 State Requirements for Water Conservation / Drought Contingency Plans

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 drinking water suppliers must include the following elements:
 - (A) a utility profile including, but not limited to, information regarding population and customer data, water use data, water supply system data, and wastewater system data;
 - (B) until May 1, 2005, specification of conservation goals including, but not limited to, municipal per capita water use goals, the basis for the

- development of such goals, and a time frame for achieving the specified goals;
 - (C) beginning May 1, 2005, specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use, in gallons per capita per day. 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 unaccounted-for uses of water (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 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 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 after 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 in order to control unaccounted-for uses of water;
 - (B) a record management system to record water pumped, water deliveries, water sales, and water losses which allows for the desegregation of water sales and uses into the following user classes:
 - (i) residential;
 - (ii) commercial;
 - (iii) public and institutional; and
 - (iv) industrial;
 - (C) A requirement in every wholesale water supply contract entered 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 gray water;
 - (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) Beginning May 1, 2005, 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 not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group.

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

6.3 Implementation Phases

6.3.1 STAGE I - WATER DEMAND AWARENESS (Mild Water Shortage Conditions)

Regulation

- 1) Trigger Level: Water use from Pasadena exceeds 4.25 MGD for five consecutive days. (85% of Current capacity)
- 2) Reduction Goal: 10%
- 3) Continue on-going education program, coordination activities, special use provisions, fire hydrant and line monitoring and programs with water purveyors and companies.
- 4) Waste of water is prohibited.
- 5) Penalty for violation of mandatory Stage 1 demand reduction measures: \$25.00 to \$100.00 per day fine for each violation.
- 6) Demand Reduction measures:
 - A. Landscape irrigation:
 1. Landscape watering with automated irrigation systems or sprinklers between 8 a.m. and 7 p.m. is prohibited. (MANDATORY)
 2. Existing or new landscapes:
 - (a) Watering with automated irrigation systems or sprinklers is permitted from 7 p.m. to 8 a.m., once every seven days in accordance with the Water Restriction Schedule contained in the definitions. (MANDATORY)
 - (b) Watering with hand-held hoses, buckets or drip irrigation systems is permitted at any time.
 - (c) Watering with reused water is exempt from reduction measures.
 - B. Vegetable Gardens:
 - 1) Watering between 8 a.m. and 7 p.m. is prohibited. (MANDATORY)
 - 2) Watering with automated irrigation systems or sprinklers is permitted from 7 p.m. to 8 a.m., once every seven days. (MANDATORY)
 - 3) Watering with hand-held hoses, buckets or drip irrigation systems is permitted at any time.
 - C. Golf Courses:
 - 1) Watering between 8 a.m. and 7 p.m. is prohibited. (MANDATORY)
 - 2) Watering with automated irrigation systems or with sprinklers is permitted from 7p.m. to 8 a.m. on Tuesdays. (MANDATORY)
 - 3) Watering with reused water is exempt from reduction measures.
 - D. Swimming Pools , Hot Tubs and similar facilities:
 - 1) Filling and makeup of new and existing facilities is permitted.
 - 2) Draining is prohibited except onto pervious surfaces only. (MANDATORY)
 - E. Aesthetic Uses: Reduction is recommended-for inside and outside use. It is recommended that non- recirculating fountains be shut off and that recirculating fountains be operated only during low evaporation periods.
 - F. Other Outdoor Uses:
 - 1) Waste is prohibited. (MANDATORY)
 - 2) Reduction of washing of impervious (paved) surface areas is recommended.
 - 3) Non-commercial washing of automobiles, trucks, trailers, boats, airplanes

and other mobile equipment is permitted on designated days once every seven days only between the hours of 7p.m. and 8 a.m. Washing shall be done with a hand-held hose or bucket. Hand-held hoses shall be equipped with a positive shut-off nozzle. (MANDATORY)

- G. Commercial and Industrial Use
 - 1) Washing of automobiles, trucks, trailers, boats, airplanes and other mobile equipment is permitted on the immediate premises of a commercial washing facility.
 - 2) Commercial nurseries, commercial sod farms and other similar establishments are requested to curtail all non-essential water use. (VOLUNTARY)
 - 3) Restaurants are asked not to serve water to customers, unless specifically requested by the customer. (VOLUNTARY)
 - 4) Voluntary reduction of water use in commercial and industrial processes is recommended.
 - 5) Demand use reduction measures for all outdoor water uses apply to commercial and industrial users.
 - H. Domestic Use: Voluntary reduction for indoor domestic use is recommended by any means available.
 - I. Essential and Utility Use: (VOLUNTARY)
 - 1) Fire Fighting: NO RESTRICTIONS
 - 2) Medical use by health care facilities: NO RESTRICTIONS
 - 3) Water Utility Use:
 - a) Reduction of average system pressure to 45 p.s.i. is recommended.
 - b) Leak detection and system repairs are recommended.
 - c) Stabilizing and equalizing system pressure is recommended.
 - d) Sewer line flushing reduction is recommended.
 - e) Fire hydrant flushing reduction is recommended.
- 7.) Alternative water sources for the City of Seabrook are Wells 1 (1490), 2 (1491), and 3 (3682) with an allowable withdrawal of 60MG/year from the Harris-Galveston Subsidence District.

6.3.2 STAGE II - WATER DEMAND WATCH (MODERATE WATER SHORTAGE CONDITIONS)

Regulation

- 1. Trigger Level: Water use from Pasadena exceeds 90 percent of allotment (4.5) MGD for five consecutive days.
- 2. Reduction goal: 15%
- 3. Wastewater is prohibited.
- 4. Penalty for violation of Stage 2 demand reduction measures: \$50.00 to \$200.00 per day for violation.
- 5. Demand Reduction Measures:
 - A. Landscape irrigation:
 - 1) Existing landscapes:
 - (a) Watering with sprinklers is permitted on designated days only from 7 p.m. to 8 a.m., once every seven days.
 - (b) Watering with hand-held hoses, buckets or drip irrigation systems is permitted at any time.
 - (c) irrigation with reused water is exempt from reduction measures.

- B. Vegetable Gardens:
 - 1) Watering with automated irrigation systems or sprinklers is permitted on designated days only from 7 p.m. to 8 a.m., once every seven days.
 - 2) Watering with hand-held hoses, buckets or drip irrigation systems is permitted at any time.
- C. Golf Courses: Only limited irrigation of greens and tees is permitted with the following restrictions:
 - 1) Watering with automated irrigation systems or sprinklers is permitted only on from 7PM Tuesday to 8AM Wednesday.
 - 2) Irrigation with reused water is exempt from reduction measures.
- D. Swimming Pools, Hot Tubs and similar facilities:
 - 1) Filling and makeup of existing facilities are permitted.
 - 2) Filling or makeup of new facilities is prohibited.
 - 3) Draining is prohibited except onto pervious surfaces only.
- E. Aesthetic Uses: Outside use is prohibited except with reused water.
- F. Other outdoor uses:
 - 1) Waste is prohibited.
 - 2) The washing of any impervious surface is prohibited, except for immediate human health, safety and welfare.
 - 3) Non-commercial washing of automobiles, trucks, trailer, boats, airplanes and other mobile equipment is permitted on designated days once every seven days only between the hours of 7 p.m. and 8 a.m. Washing shall be done with a hand-held hose or bucket. Hand-held hoses shall be equipped with a positive shutoff nozzle. (MANDATORY)
- G. Commercial and Industrial Uses
 - 1) Washing of automobiles, trucks, trailers, boats, airplanes and other mobile equipment is permitted on the immediate premises of a commercial washing facility,
 - 2) Commercial nurseries, commercial sod farms and other similar establishments shall restrict watering hours to 6 a.m. to 10 a.m.
 - 3) Restaurants are prohibited from serving water to customers unless specifically requested by the customer.
 - 4) Voluntary reduction of water use in commercial and industrial processes is recommended.
 - 5) Demand use reduction measures for all outdoor water uses apply to commercial and industrial users.
- H. Domestic Use: Voluntary reduction for indoor domestic use is recommended by any means available.
- I. Essential and Utility Use: (VOLUNTARY)
 - 1) Fire fighting: NO RESTRICTIONS.
 - 2) Medical use by health care facilities: NO RESTRICTIONS.
 - 3) Water utility use:
 - a) Reduction of average system pressure to 45 p.s.i. recommended.
 - b) Leak detection and system repairs are recommended.
 - c) Stabilizing and equalizing system pressure are recommended.
 - d) Sewer line flushing is prohibited except for emergencies.
 - e) Fire hydrant flushing is prohibited except for emergencies.
 - f) Power production use: Reduction of water use for power production

is recommended.

- 6) Alternative water sources for the City of Seabrook are Wells 1 (1490), 2 (1491), and 3 (3682) with an allowable withdrawal of 60MG/year from the Harris-Galveston Subsidence District.

6.3.4 STAGE III - AQUIFER ALERT (SEVERE SHORTAGE CONDITIONS) Regulation

1. Trigger Level: Water use from Pasadena is 95% of allocation (4.75 MGD) for five consecutive days.
2. Reduction Goal: 25%
3. Wasting of water is prohibited.
4. Emergency conservation water rates may be implemented by City Council action.
5. Penalty for violation of Stage 3 demand reduction measures: \$50.00 to \$500.00 per day fine for each violation.
6. Demand Reduction Measures:
 - A. Landscape Irrigation:
 - 1) Existing landscapes:
 - a) Watering with automated irrigation systems or sprinklers is prohibited.
 - 2) The washing of any impervious surface is prohibited, except for immediate human health, safety and welfare.
 - B. Commercial and Industrial Uses
 - 1) Commercial washing of automobiles, trucks, trailers, boats, airplanes and other mobile equipment is prohibited except at commercial facilities with recirculating water systems.
 - 2) Commercial nurseries, commercial sod farms and other similar establishments shall restrict watering hours to 6 a.m. to 10 a.m., once a week on Mondays.
 - 3) Restaurants are prohibited from serving water to customers unless specifically requested by the customer.
 - 4) Voluntary reduction of water use in commercial and industrial processes is recommended.
 - 5) Demand use reduction measures for all outdoor water uses apply to commercial and industrial users.
 - C. Domestic Use: Voluntary reduction indoor domestic use recommended by any means available.
 - D. Essential and Utility Use: (VOLUNTARY)
 - 1) Fire fighting: NO RESTRICTIONS
 - 2) Medical use by health care facilities: NO RESTRICTIONS
 - 3) Water Utility Use:
 - a) Reduction of average system pressure to 45 p.s.i. is recommended.
 - b) Leak detection and system repairs are recommended.
 - c) Stabilizing and equalizing system pressure are recommended.
 - d) Sewer Line flushing is prohibited except for emergencies.
 - e) Fire Hydrant flushing is prohibited except for emergencies.
- 7.) Alternative water sources for the City of Seabrook are Wells 1 (1490), 2 (1491), and 3 (3682) with an allowable withdrawal of 60MG/year from the Harris-Galveston Subsidence District.

6.3.5 STAGE IV - AQUIFER RISK (CRITICAL WATER SHORTAGE CONDITION) Regulation

1. Trigger Level: Water use from Southeast Plant exceeds 100% of allotment 5 MGD for five consecutive days.
2. Reduction goal: 30%
3. Waste is prohibited. Water use restricted to those uses essential for human health, safety and welfare.
4. Emergency conservation water rates may be implemented by City Council action.
5. Penalty for violations of Stage 3 demand reduction measures: \$100.00 to \$1,000.00 per day fine for each violation.
6. Mandatory Demand Reduction Measures:
 - a) Watering of trees and shrubs with buckets or drip irrigation systems is permitted on designated days between 7 p.m. and 8 a.m. only. All other landscape irrigation is prohibited except with reuse water.
 - b) Vegetable Gardens: Irrigation is prohibited, except with handheld hoses, buckets or drip systems between 7 p.m. and 8 a.m., once every seven days on designated days .
 - c) Golf Courses: Irrigation is prohibited except with reused water.
 - d) Swimming Pools, Hot Tubs and similar facilities:
 - 1) Filling or makeup of new facilities or existing is prohibited.
 - 2) Draining is prohibited except onto pervious surfaces only.
 - e) Aesthetic Uses: Inside or outside use is prohibited except with reused water.
 - f) Other outdoor uses:
 - 1) Waste is prohibited.
 - 2) The washing of any impervious surface is prohibited, except for immediate human health, safety and welfare.
 - 3) Non-commercial washing of automobiles, trucks, trailers, boats, airplanes and other mobile equipment is prohibited.
 - g) Commercial and Industrial Uses:
 - 1) Commercial washing of automobiles, trucks, trailers, boats, airplanes and other mobile equipment is prohibited.
 - 2) Commercial nurseries, commercial sod farms and other similar establishments shall restrict watering hours to 6 a.m. to 10 a.m., once a week on Mondays.
 - 3) Restaurants are prohibited from serving water to customers unless specifically requested by the customer.
 - 4) Voluntary reduction of water use in commercial and industrial processes is recommended.
 - 5) Demand use reduction measures for all outdoor water uses apply to commercial and industrial users.
 - h) Domestic use: Voluntary reduction for indoor domestic use is recommended by any means available.
 - i) Essential and Utility Use:
 - 1) Fire Fighting: No restrictions
 - 2) Medical use by health care facilities: No restrictions.
 - 3) Water utility use:
 - a) Reduction of average system pressure to 40 p.s.i. is

- recommended.
 - b) Leak detection and system repairs are recommended.
 - c) Stabilizing and equalizing system pressure are recommended.
 - d) Sewer line flushing is prohibited except for emergencies.
 - e) Fire hydrant flushing is prohibited except for emergencies.
 - f) Power production use: reduction of water use for power production is recommended.
- 7.) Alternative water sources for the City of Seabrook are Wells 1 (1490), 2 (1491), and 3 (3682) with an allowable withdrawal of 60MG/year from the Harris-Galveston Subsidence District.

6.3.6 STAGE V: AQUIFER EMERGENCY Regulation

1. Trigger Level: Water use exceeds allocation, other sources at or near 100% of production capacity for five consecutive days.
2. Reduction goal to be determined by the Water Demand Management Program to protect human health, safety and livestock watering.
3. Penalty for violations of Stage 5 demand reduction measures: \$100.00 to \$2000.00 per day fine for each violation.

7.0 EMERGENCY WATER DEMAND MANAGEMENT INFORMATION PROGRAM

The City of Seabrook's Public Works Director maintains, in current condition, information about the City's water supplies, including water usage of both ground and surface waters and shall provide this information to the City Manager and others as appropriate. When water demand at the Southeast Plant reaches trigger levels, as specified in Stage I through 5 of the Drought Contingency Plan (Section 6.3), the full range of information, goals, demand reduction, measures and penalties for each respective stage, as stated in the plan will be communicated to the Seabrook water customers. The means of communication will be by public announcements in newspaper, radio and television and printed bulletins that will be posted at City Hall and when warranted, will be either mailed or hand delivered to water customers.

8.0 Drought Contingency Plan for a Wholesale Public Water Supplier.

8.1 Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and/or to 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 of Seabrook adopts the following Drought Contingency Plan (the Plan).

8.2 Public Involvement

Opportunity for the public and wholesale water customers to provide input into the preparation of the Plan was provided by City of Seabrook by means regularly

scheduled City Council meetings.

8.3 Wholesale Water Customer Education

The City of Seabrook will periodically provide wholesale water customers 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 providing the wholesale customer a copy of the Drought Contingency Plan for a Wholesale Supplier.

8.4 Coordination with Regional Water Planning Groups

The water service area of the City of Seabrook is located within the Region H and the City of Seabrook has provided a copy of the Plan to: San Jacinto River Authority, P.O. Box 329, Conroe, TX 77305-0329, phone 936-588-1111.

8.5 Authorization

The City of Seabrook 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 of Seabrook 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.

8.6 Application

The provisions of this Plan shall apply to all customers utilizing water provided by the City of Seabrook. The terms person and customer as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

8.7 Criteria for Initiation and Termination of Drought Response Stages

The City of Seabrook Public Works Director, 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. Customer notification of the initiation or termination of drought response stages will be made by mail or telephone. The news media will also be informed. The triggering criteria described below are based on the four (4) Stages listed below in accordance with the City of Seabrook's ability to safely operate water capacity from the City of Pasadena.

8.7.1 Stage 1 Triggers -- MILD Water Shortage Conditions

Requirements for initiation The City of Seabrook will recognize that a mild water shortage condition exists: when total daily water demand equals or exceeds 85 percent of the safe operating capacity of 5 million gallons per day for 5 consecutive days (4.25 MGD).

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 30 consecutive days. The City of Seabrook will notify its wholesale

customers and the media of the termination of Stage 1 in the same manner as the notification of initiation of Stage 1 of the Plan.

8.7.2 Stage 2 Triggers -- MODERATE Water Shortage Conditions

Requirements for initiation The City of Seabrook will recognize that a moderate water shortage condition exists: when total daily water demand equals or exceeds 90 percent of the safe operating capacity of 5 million gallons per day for 5 consecutive days (4.5 MGD).

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 30 consecutive days. Upon termination of Stage 2, Stage 1 becomes operative. The City of Seabrook will notify its wholesale customers and the media of the termination of Stage 2 in the same manner as the notification of initiation of Stage 1 of the Plan.

8.7.3 Stage 3 Triggers -- SEVERE Water Shortage Conditions

Requirements for initiation The City of Seabrook will recognize that a severe water shortage condition exists: when total daily water demand equals or exceeds 95 percent of the safe operating capacity of 5 million gallons per day for 5 consecutive days (4.755 MGD).

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 30 consecutive days. Upon termination of Stage 3, Stage 2 becomes operative. The City of Seabrook will notify its wholesale customers and the media of the termination of Stage 2 in the same manner as the notification of initiation of Stage 3 of the Plan.

8.7.4 Stage 4 Triggers -- CRITICAL Water Shortage Conditions

Requirements for initiation - The City of Seabrook will recognize that an emergency water shortage condition exists: when total daily water demand equals or exceeds 100 percent of the safe operating capacity of 5 million gallons per day for 5 consecutive days, major or excessive water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service; or natural or man-made contamination of the water supply source(s).

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 30 consecutive days. The City of Seabrook will notify its wholesale customers and the media of the termination of Stage 4.

8.7.5 STAGE V: AQUIFER EMERGENCY

Regulation

1. Trigger Level: Water use exceeds allocation, other sources at or near 100% of production capacity for five consecutive days.
2. Reduction goal to be determined by the Water Demand Management Program to protect human health, safety and livestock watering.
3. Penalty for violations of Stage 5 demand reduction measures: \$100.00 to \$2000.00 per day fine for each violation.

8.8 Drought Response Stages

The City of Seabrook Public Works Director, or his/her designee, shall monitor water supply and/or demand conditions and, in accordance with the triggering criteria set forth in Section VI, shall determine that mild, moderate, or severe water shortage conditions exist or that an emergency condition exists and shall implement the following actions:

8.8.1 Stage 1 Response -- MILD Water Shortage Conditions

Target: Achieve a 10 percent reduction in total daily water demand.

Best Management Practices for Supply Management:

Investigate the use of available well water within the potable water system and the possibility of the use of reclaimed water for non-potable purposes.

Water Use Restrictions for Reducing Demand:

- (a) The City of Seabrook Public Works Director, or his/her designee(s), will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate voluntary measures to reduce water use (e.g., implement Stage 1 of the customer drought contingency plan).

8.8.2 Stage 2 Response -- MODERATE Water Shortage Conditions

Target: Achieve a 15 percent reduction in total daily water demand.

Best Management Practices for Supply Management: Investigate the use of available well water within the potable water system and the possibility of the use of reclaimed water for non-potable purposes.

Water Use Restrictions for Reducing Demand:

- (a) The City of Seabrook Public Works Director, or his/her designee(s), will initiate weekly contact with wholesale water customers to discuss water supply and/or demand conditions and the possibility of pro rata curtailment of water diversions and/or deliveries.
- (b) The City of Seabrook Public Works Director, or his/her designee(s), will request wholesale water customers to initiate mandatory measures to reduce non-essential water use (e.g., implement Stage 2 of the customer drought contingency plan).
- (c) The City of Seabrook Public Works Director, or his/her designee(s),

will initiate preparations for the implementation of pro rata curtailment of water diversions and/or deliveries by preparing a monthly water usage allocation baseline for each wholesale customer according to the procedures specified in Section VI of the Plan.

- (d) The City of Seabrook Public Works Director, or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

8.8.3 Stage 3 Response -- SEVERE Water Shortage Conditions

Target: Achieve a 25 percent reduction in total daily water demand. Best Management Practices for Supply Management: Investigate the use of available well water within the potable water system and the possibility of the use of reclaimed water for non-potable purposes.

Water Use Restrictions for Reducing Demand:

- (a) The City of Seabrook Public Works Director, or his/her designee(s), will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate additional mandatory measures to reduce non-essential water use (e.g., implement Stage 2 of the customer drought contingency plan).
- (b) The City of Seabrook Public Works Director, or his/her designee(s), will initiate pro rata curtailment of water diversions and/or deliveries for each wholesale customer according to the procedures specified in Section VI of the Plan.
- (c) City of Seabrook Public Works Director, or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

8.8.4 Stage 4 Response -- EMERGENCY Water Shortage Conditions

Whenever emergency water shortage conditions exist as defined in Section 6 of the Plan, the City of Seabrook Public Works Director shall:

1. Assess the severity of the problem and identify the actions needed and time required to solve the problem.
2. Inform the utility director or other responsible official of each wholesale water customer by telephone or in person and suggest actions, as appropriate, to alleviate problems (e.g., notification of the public to reduce water use until service is restored).

3. If appropriate, notify city, county, and/or state emergency response officials for assistance.
4. Undertake necessary actions, including repairs and/or clean-up as needed.
5. Prepare a post-event assessment report on the incident and critique of emergency response procedures and actions.

8.8.5 STAGE V: RESPONSE AQUIFER EMERGENCY

Whenever emergency water shortage conditions exist as defined in Section 6 of the Plan, the City of Seabrook Public Works Director shall:

1. Consult with wholesale customers to discuss the following water diversions and/or deliveries: disconnection of service or limitation to water service by use of throttling at the interconnect.

8.9 Pro Rata Water Allocation

In the event that the triggering criteria specified in Section 6 of the Plan for Stage 3 Severe Water Shortage Conditions have been met, the City of Seabrook Public Works Director is hereby authorized to initiate allocation of water supplies on a pro rata basis in accordance with Texas Water Code Section 11.039. The drought contingency plan must include a provision in every wholesale water contract entered into or renewed after adoption of the plan, including extensions, that in case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code, § 11.039.

8.10 Enforcement

During any period when pro rata allocation of available water supplies is in effect, wholesale customers shall expect the following water diversions and/or deliveries: disconnection of service or limitation of water service by use of throttling at the interconnect.

8.11 Variances

The Seabrook 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.

Persons requesting an exemption from the provisions of this Plan shall file a petition for variance with the City of Seabrook City Manager or designee within 5 days after pro rata allocation has been invoked. All petitions for variances shall be reviewed by the City Manager or designee 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 Ordinance.
- (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.

Variations granted by the City Manager shall be subject to the following conditions, unless waived or modified by the Seabrook City Council :

- (a) Variations granted shall include a timetable for compliance.
- (b) Variations 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.

APPENDIX A: Definitions

In the Water Conservation / Drought Contingency Plan, the following definitions apply:

Agricultural irrigation - irrigation for the purpose of growing crops commercially for human consumption or to use as feed for livestock or poultry.

Aesthetic use - the use of water for fountains, waterfalls and landscape lakes or ponds where such use is entirely ornamental and serves no other functional purpose.

Athletic Fields – grounds designated for sports and athletic practices and contests including parks, schools (public and private), municipal and privately owned.

Bucket - bucket or other container holding five gallons or less, used singularly by one person.

Commercial and institutional water use - water use which is integral to the operations of commercial and non-profit 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 of Seabrook.

Domestic water use – use of water (other than the “Outdoor” category) for household, personal, or sanitary purposes such as drinking, cooking, cooling, heating, bathing, and cleaning whether the use occurs in a residence, business, industry, or institution.

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

Existing landscape plant - a landscaping plant planted during any period for which a water conservation plan stage has not been declared or during a stage, which has been rescinded.

Existing facility - a swimming pool, hot tub, or any similar facility, including residential and private facilities, installed during any period for which a water conservation stage has not been declared or during a stage that has been rescinded. This term does not include pools specifically maintained to provide habitat for aquatic life.

Hand-held hose - a hose attended by one person, fitted with a manual shutoff nozzle.

Industrial use - the use of water in processes designed to convert materials of lower value into forms having greater value and usability as in the production of primary goods and services provided by industrial or commercial facilities. Industrial facilities include facilities which perform such process-specific activities as cooling, boiler-feed, cleaning and washing, pollution control, extraction, and separation of desirable material from products and waste materials and the incorporation of water into final products. Commercial facilities include, but are not limited to, food service facilities, hotels, retail facilities and nursery operations.

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.

Landscape plant - any plant including any tree, shrub, vine, herb, flower, succulent, groundcover, or grass species that is used for landscaping purposes or for the support of recreational areas such as playgrounds and playing fields.

Livestock use - the use of water for drinking by or washing of livestock. "Livestock" means cattle, sheep, goats, hogs, poultry, horses, and game, domestic, exotic, and other animals and birds, including zoo animals used for commercial or personal purposes.

Makeup - means partial refilling due to evaporative water loss and backwashing.

New facility – a swimming pool, hot tub, or any similar facility, including residential and private facilities, installed during any current water conservation plan stage. When the stage is rescinded, the new facility will be treated thereafter as an existing facility. This term does not include wading pools or pools specifically maintained to provide habitat for aquatic life.

New landscape – vegetation installed at the time of the construction of a new house, new multi-family building, or a new commercial building; installed as part of a capital improvement project; or vegetation which alters more than one half the area of an existing landscape; and has been installed for less than thirty (30) days.

New landscaping plant - a landscaping plant planted during any current water conservation plan stage when the stage is rescinded, the new landscaping plant will be treated thereafter as an existing plant.

Non-essential water use – water uses that are neither essential nor required for the protection of public health, safety, or welfare, including:

- (a) irrigation of landscape areas, including parks, athletic fields, and golf courses, except otherwise provided under this Plan;
- (b) use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;
- (c) use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
- (d) use of water to wash down buildings or structures for purposes other than immediate fire protection;
- (e) flushing gutters or permitting water to run or accumulate in any gutter or street;
- (f) use of water to fill, refill, or add to any indoor or outdoor swimming pools or Jacuzzi-type pools;
- (g) use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life;
- (h) failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s); and
- (i) use of water from hydrants for construction purposes or any other purposes other than fire fighting.

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

Person – any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust estate, governmental; entity or any other legal entity, or their legal representative, agents or assigns and includes the owner, occupant, lessee, or manager of a property.

Power production use - the use of water for steam generation and the use of water for cooling and for replenishment of cooling reservoirs.

Reused water - water that has been recycled or reclaimed after it has been used for beneficial purposes.

Waste - includes, but is not limited to, allowing water to run off into a gutter, ditch drain or street or failing to repair a controllable leak.

Water Restriction Schedule - where a water restriction calls for use only once every seven days, or only on designated days, the following system shall apply to determine the "day" within each calendar week that the use is permitted.

- 1) Buildings and premises with even-numbered addresses - Tuesdays only beginning at 7:00 pm and ending Wednesdays at 8:00 am.
- 2) Buildings and premises with odd-numbered addresses - Thursdays only beginning at 7:00 pm and ending Fridays at 8:00 a.m.

Vegetable garden - any non-commercial garden planted primarily for household use. For this use "non-commercial" includes incidental direct selling of produce from such a garden to the public.

WATER CONSERVATION PLAN GUIDANCE CHECKLIST

This guidance checklist applies to all Texas Water Development Board (TWDB) Financial Assistance Programs specified in its rules under Texas Administrative Code 31, Chapters 355, 363, 371, 375, 382, and 384 and to PWS's that provide potable water service to 3,300 or more connections. The Water Conservation Plan must meet the minimum requirements as stated below and **should be no older than 5 years**. The Water Conservation Plan should also include a Utility Profile, which is an evaluation of the applicant's water and wastewater system and customer water use characteristics, to identify water conservation opportunities and should be used to set goals through water conservation measures. Completing the Utility Profile is the first step in developing a Water Conservation Plan. The Water Conservation Plan shall provide information in response to the following minimum requirements. If the plan does not provide information for each minimum requirement, the applicant **shall include in the plan an explanation as to why the requirement is not applicable**.

The *Water Conservation Plan* is a strategy or combination of strategies for reducing the consumption of water, reducing the loss or waste of water, improving or maintaining the efficiency in the use of water, or increasing recycling and reuse of water. The *Drought Contingency (Emergency Demand Management) Plan* is a strategy or combination of strategies for responding to temporary and potentially recurring water supply shortages and other water supply **emergencies**.

FAQs: <http://www.twdb.texas.gov/conservation/municipal/plans/faqs.asp>

THE WATER CONSERVATION PLAN REQUIREMENTS:

Requirements for Water Conservation Plans: [Title 30 TAC Chapter 288, Rule §288.2](#)
[Title 31 TAC Chapter 363, Rule §363.15](#)

A. **Water Conservation Utility Profile, TWDB-1965:** An evaluation of the applicant's water and wastewater system and customer use characteristics to identify water conservation opportunities and potential targets and goals. Completion of the *Utility Profile* as part of the evaluation is required and should be submitted with the plan, it should be considered the data portion of the plan. The Utility Profile should include the water sales and use for the following classifications: residential (both for single-family and multi-family), commercial, institutional, industrial, agricultural, and wholesale; as appropriate.

- If submitting a new Water Conservation Plan for an application, a Utility Profile must be submitted along with the plan. Please reach out to TWDB staff to receive a fillable PDF copy of the Utility Profile. The profile should be filled out with as much data as is available so a baseline water usage profile for the system can be established.

Conservation Staff: wcpteam@twdb.texas.gov

- For new applications with existing Water Conservation Plans, please login to the online LUC application to access your electronic Utility Profile and update the applicable data as needed.

Online Application: <https://www3.twdb.texas.gov/apps/APM/default.aspx>

B. **Conservation Coordinator:** Include a designated person as the **water conservation coordinator** responsible for implementing the water conservation plan; and identify, in writing, the water conservation coordinator to the executive administrator of the board (*TWC Sec. 13.146*) (*Conditional Requirement*).

For More Information: [Link to the Best Management Practice](#)

C. **5- and 10-year goals in GPCD:** Inclusion of five-year and ten-year targets that are specific

and quantified for water savings and include goals for water loss programs, and goals for municipal use and residential use, in gallons per capita per day or GPCD (**i.e. Total GPCD, Residential GPCD, and Water Loss GPCD**). A base use figure, or baseline, should be included to calculate your estimated savings. Consider state and regional targets and goals, local climate, and demographics (*i.e. wet year versus dry year, high usage versus low usage*). Consider the anticipated savings that can be achieved by utilizing appropriate best management practices and other conservation techniques.

For More Information: [Targets and Goals Guidance](#)

D. ✓ Achieving Targets: schedule for implementing the plan to achieve the applicant's or utilities targets and goals.

E. ✓ Tracking Targets and Goals: Describe the method for tracking the implementation and effectiveness of the plan. The method should track annual water use and provide information to evaluate the implementation of conservation measures. The plan should measure progress annually and evaluate the progress towards meeting the goals.

F. ✓ Production Meter(s): A meter to measure and account for water diverted from the source of supply to the system.

G. ✓ Universal Metering Program: A program of universal metering of both customer and public uses of water, for meter testing, repair and for periodic replacement (*i.e. maintaining meter accuracy by ongoing testing, repairing and an aged meter replacement program*).

For More Information: [Link to the Best Management Practice](#)

H. ✓ Water Loss Control Program: Measures to determine and control water loss. A program that helps to identify real or physical losses of water from the water system and apparent losses, or the water that is consumed but not accounted for (some examples are, periodic visual inspections along distribution lines; annual or monthly auditing of the water system to determine illegal connections, or abandoned services, and repairing or replacing meters regularly to ensure efficiency and meter accuracy).

For More Information: [Link to the Best Management Practice](#)

I. ✓ Leak Detection Program: A continuous program of leak detection, repair, and water loss accounting for the transmission, delivery, and distribution system in order to control water loss. Estimate how much the utility can save by repairing the leaks in the system.

For More Information: [Link to the Best Management Practice](#)

J. ✓ Public Education and Information: A program of continuing education and information regarding water conservation. This should include providing water conservation information directly to each residential, industrial and commercial customer at least annually, and providing water conservation literature to new customers when they apply for service. The goal is education of customers about the overall picture of water resources in the community and how conservation is important for meeting the goals and sustaining existing water supplies. An equally important part of the program is to provide data and information on specific actions and measures the customers should take to implement these community goals.

For More Information:

[Link to the Best Management Practice: Public](#)

[Link to the Best Management Practice: School](#)

[Link to the Best Management Practice: Outreach](#)

K. ✓ Water Rate Structure: 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.

Include a copy of the rate structure (i.e. Rate Table or Rate Ordinance)

For More Information: [Link to the Best Management Practice](#)

L. ___ Signed Official Ordinance: A means of implementation and enforcement, evidenced by adoption of the plan:

1. a **copy of the ordinance**, resolution, or tariff indicating official adoption of the Water Conservation Plan by the applicant and;
2. a description of the authority by which the applicant will implement and enforce the Water Conservation Plan.

For More Information: [Link to the Best Management Practice](#)

M. ✓ Wholesale or Contract: If the applicant will furnish water or wastewater services to another supplying entity that in turn will furnish the water or wastewater services to the ultimate consumer, the requirements for the Water Conservation Plan also pertain to these supplier entities. To comply with this requirement the applicant shall:

1. submit its own Water Conservation Plan;
2. submit the other entity’s (or entities) Water Conservation Plan;
3. require, by contract, that the other entity (or entities), adopt a Water Conservation Plan that conforms to the board’s requirement and submit it to the board. If the requirement is to be included in an existing water or wastewater service contract, it may be included, at the earliest of the renewal or substantial amendment of that contract, or by other appropriate measures. *(Conditional Requirement)*

For More Information: [Best Management Practices Regarding Wholesale](#)

N. ✓ Regional Water Planning Group Notification: Documentation that the regional water planning group for the service area of the applicant or utility has been notified of the applicant’s updated Water Conservation Plan (i.e. this can be a copy of the letter, email, or fax cover page) A **COPY must be sent** to the appropriate parties.

NOTE: The Water Conservation Plan may also include other conservation methods or techniques that the applicant deems appropriate.

BMPs: <https://www.twdb.texas.gov/conservation/BMPs/Mun/index.asp>

THE DROUGHT CONTINGENCY PLAN REQUIREMENTS:

O. Drought Contingency Plan (for Financial Assistance Programs) The Drought Contingency Plan shall meet the requirements found in: [Title 30 TAC Chapter 288, Subchapter B](#)

[TCEQ Requirements Regarding Drought Contingency Plans](#)

1. **✓ Trigger conditions:** Describe information to be monitored. For example, reservoir levels, daily water demand, water production or distribution system limitations. Supply source contamination and system outage or equipment failure should be considered too. Determine specific quantified targets of water use reduction.

2.  **Demand management measures:** Actions that will be implemented by the utility during each stage of the plan when predetermined triggering criteria are met. Drought plans must include quantified and specific targets for water use reductions to be achieved during periods of water shortage and drought. Supply management measures typically can be taken by the utility to better manage available water supply, as well as the use of backup or alternative water sources. The demand management measures should curtail nonessential water uses, for example, outdoor water use.
3.  **Initiation and termination procedures:** The drought plan must include specific procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of the public.
4.  **Variations and enforcement:** The plan should specify procedures for considering (approving and denying) variations to the plan. Equally as important is the inclusion of provisions for enforcement of any mandatory water use restrictions, including specification of penalties for violations of such restrictions.
5.  **Measures to inform and educate the public:** Involving the public in the preparation of the drought contingency plan provides an important means for educating the public about the need for the plan and its content.

P. Adoption: No water conservation plan is complete without formal adoption by the governing body of the entity. For a municipal water system, adoption would be by the city council as an ordinance, or a resolution by the entity's board of directors.

 **Q. Reporting Requirement:** Identify who will be responsible for preparing the annual report on the utility profile form TWDB-1965. Loan/Grant Recipients must maintain an approved water conservation program in effect until all financial obligations to the state have been discharged and shall **report annually** to the executive administrator of the TWDB on the progress in implementing each of the minimum requirements in its water conservation plan and the status of any of its customers' water conservation plan required by contract. The content and format for the annual reporting is included in the forms:

1. **Water Conservation Plan Annual Report,**
 - a. **TWDB-1966 for retail water suppliers,**
 - b. **TWDB-1967 for non- water suppliers and**
 - c. **TWDB-1969 for wholesale water suppliers.**

For information and assistance for utilities requesting TWDB financial assistance contact:

Water Conservation Plans
Texas Water Development Board
P.O. Box 13231
Austin, Texas 78711-3231
wcpteam@twdb.texas.gov
512-463-7955

RESOURCES LIST:

TWDB Application Program Management (APM) System:

This is where a utility can gain access to the Water Loss, Use and Conservation Home Page or LUC system. Secured access requires a user to log in to view a list of applications and access approved applications in addition to applications offered in public access.

<https://www.twdb.texas.gov/apps/overview.asp>

Municipal Water Conservation Planning Tool:

The MWCPT tool contains pre-loaded data to assist in the development of conservation plans. It provides an accounting framework for projecting future conservation program costs and water savings as well as estimating the water savings from previous implementation of conservation measures.

https://www.twdb.texas.gov/conservation/municipal/plans/doc/TWDB_MWCPT_v1.xlsm

Water Conservation Plan Resources:

A Water Conservation Plan is a strategy or combination of strategies for reducing the consumption of water, reducing the loss or waste of water, improving or maintaining the efficiency in the use of water, or increasing recycling and reuse of water.

<http://www.twdb.texas.gov/conservation/municipal/plans/index.asp>

Best Management Practices Information:

Best Management Practices (BMPs) are a menu of options for which entities within a water use sector can choose to implement in order to achieve benchmarks and goals through water conservation. Best management practices are voluntary efficiency measures that are intended to save a quantifiable amount of water, either directly or indirectly, and can be implemented within a specified timeframe.

<http://www.twdb.texas.gov/conservation/bmps/index.asp>

Statewide Water Conservation Quantification Project:

A research project principally charged with quantitatively determining the savings of municipal water conservation activities being implemented in relation to the recommended conservation goals (supply volumes) in the 2017 State Water Plan. The project was also tasked with identifying activities that participating water utilities could pursue to meet future goals.

<https://www.twdb.texas.gov/conservation/doc/StatewideWaterConservationQuantificationProject.pdf>

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

CONTACT INFORMATION

Name of Utility: CITY OF SEABROOK

Public Water Supply Identification Number (PWS ID): TX1010062

Certificate of Convenience and Necessity (CCN) Number: 10858

Surface Water Right ID Number: _____

Wastewater ID Number: 20331

Contact: First Name: Brian Last Name: Craig

Title: Asst Public Works Dir / City Engineer

Address: 1100 Red Bluff Road City: Seabrook State: TX

Zip Code: 77586 Zip+4: _____ Email: bcraig@seabrooktx.gov

Telephone Number: 2812915719 Date: 4/11/2024

Is this person the designated Conservation Coordinator? Yes No

Regional Water Planning Group: H

Groundwater Conservation District: _____

Our records indicate that you:

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

A. Population and Service Area Data

1. Current service area size in square miles: 13

Attached file(s):

File Name	File Description
Seabrook CCN.pdf	Seabrook CCN map

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

2. 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 Water Service
2023	13,927	2,947	13,927
2022	13,560	3,075	13,560
2021	13,927	2,710	13,927
2020	14,291	2,740	14,291
2019	14,291	2,740	14,291

3. 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 Water Service
2030	12,687	2,990	12,687
2040	12,914	3,003	12,914
2050	13,279	3,045	13,279
2060	13,517	3,058	13,517
2070	13,759	3,071	13,759

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

TWDB 2021 Regional Water Plan for Region H - Seabrook and WCID 50 (El Lago) was used for projected data.

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

B. System Input

System input data for the previous five years.

Total System Input = Self-supplied + Imported – Exported

Year	Water Produced in Gallons	Purchased/Imported Water in Gallons	Exported Water in Gallons	Total System Input	Total GPCD
2023	43,980,612	581,056,122	107,057,143	517,979,591	102
2022	19,034,737	644,336,842	123,628,421	539,743,158	109
2021	21,322,105	616,168,421	110,996,842	526,493,684	104
2020	8,041,053	687,389,474	122,591,579	572,838,948	110
2019	3,889,474	628,172,632	119,384,211	512,677,895	98
Historic Average	19,253,596	631,424,698	116,731,639	533,946,655	105

C. Water Supply System

Attached file(s):

File Name	File Description
map 2023.pdf	

1. Designed daily capacity of system in gallons
2. Storage Capacity
 - 2a. Elevated storage in gallons:
 - 2b. Ground storage in gallons:

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

D. Projected Demands

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

Year	Population	Water Demand (gallons)
2025	14,547	1,515,748
2026	14,867	1,549,095
2027	15,194	1,583,175
2028	15,528	1,618,005
2029	15,869	1,653,601
2030	16,219	1,689,980
2031	16,575	1,727,160
2032	16,940	1,765,157
2033	17,313	1,803,991
2034	17,694	1,843,678

2. Description of source data and how projected water demands were determined.

2023 population is 13,927.
 Seabrook growth numbers from 2022 to 2023 was 2.6% $\{(100 - ((13560 * 100) / 13927)) / 100\}$
 TWDB growth numbers from 2030 to 2040 is 1.8% $\{(100 - (12687 * 100) / 12914) / 100\}$
 Average of both = 2.2% increase used every year
 Water demand based on historic average of 104.2 GPCD * 365 days * population

Attached file(s):

File Name	File Description
Projected Water Demands to 2034.xlsx	Projected water demands

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

E. High Volume Customers

1. The annual water use for the five highest volume
RETAIL customers.

Customer	Water Use Category	Annual Water Use	Treated or Raw
Newport Classic Homes (multi fam)	Residential	13,553,000	Treated
Wref Bar Harbor, LP (multi fam)	Residential	12,994,000	Treated
Vista Shores Apts 2011 LP (multi fam)	Residential	9,667,000	Treated
Pirates Landing Apts (multi fam)	Residential	9,489,000	Treated
Brixton Regatta LP (multi fam)	Residential	7,765,000	Treated

2. The annual water use for the five highest volume
WHOLESALE customers.

Customer	Water Use Category	Annual Water Use	Treated or Raw
Harris County WCID 50 El Lago	Municipal	104,916,000	Treated

F. Utility Data Comment Section

Additional comments about utility data.

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

Section II: System Data

A. Retail Water Supplier Connections

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

Water Use Category Type	Total Retail Connections (Active + Inactive)	Percent of Total Connections
Residential - Single Family	3,585	51.20 %
Residential - Multi-Family	3,137	44.80 %
Industrial	0	0.00 %
Commercial	176	2.51 %
Institutional	7	0.10 %
Agricultural	97	1.39 %
Total	7,002	100.00 %

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

Net Number of New Retail Connections							
Year	Residential - Single Family	Residential - Multi-Family	Industrial	Commercial	Institutional	Agricultural	Total
2023	3,585	3,137	0	176	7	97	7,002
2022	3,538	3,261	0	182	7	100	7,088
2021	3,484	3,080	0	186	8	100	6,858
2020	3,466	3,079	0	175	8	110	6,838
2019	3,449	2,889	0	147	8	103	6,596

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

B. Accounting Data

The previous five years' gallons of RETAIL water provided in each major water use category.

Year	Residential - Single Family	Residential - Multi-Family	Industrial	Commercial	Institutional	Agricultural	Total
2023	272,665,000	99,491,000	0	62,594,000	5,675,000	20,604,000	461,029,000
2022	261,777,000	104,533,000	0	61,726,000	8,581,000	24,194,000	460,811,000
2021	241,807,000	113,198,000	0	64,884,000	2,775,000	15,226,000	437,890,000
2020	266,407,000	123,042,000	0	59,854,000	2,893,000	21,397,000	473,593,000
2019	237,815,000	104,978,000	0	58,975,000	3,841,000	17,484,000	423,093,000

C. Residential Water Use

The previous five years residential GPCD for single family and multi-family units.

Year	Total Residential GPCD
2023	73
2022	74
2021	70
2020	75
2019	66
Historic Average	72

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

D. Annual and Seasonal Water Use

1. The previous five years' gallons of treated water provided to RETAIL customers.

Month	Total Gallons of Treated Water				
	2023	2022	2021	2020	2019
January	33,734,000	32,500,000	34,829,000	31,451,000	31,928,000
February	28,521,000	33,139,000	39,999,000	32,853,000	29,693,000
March	30,777,000	29,723,000	25,510,000	32,053,000	26,811,000
April	33,375,000	34,657,000	38,243,000	39,510,000	34,950,000
May	34,584,000	41,333,000	36,732,000	44,006,000	34,830,000
June	39,836,000	43,163,000	35,519,000	42,370,000	42,941,000
July	45,988,000	50,680,000	38,101,000	47,196,000	36,985,000
August	58,845,000	46,597,000	43,512,000	42,652,000	43,628,000
September	52,695,000	35,955,000	40,651,000	46,397,000	39,087,000
October	36,687,000	45,690,000	34,987,000	40,723,000	45,341,000
November	34,816,000	38,770,000	35,942,000	40,424,000	24,161,000
December	31,171,000	28,604,000	33,865,000	33,958,000	32,738,000
Total	461,029,000	460,811,000	437,890,000	473,593,000	423,093,000

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

2. The previous five years' gallons of raw water provided to RETAIL customers.

Month	Total Gallons of Raw Water				
	2023	2022	2021	2020	2019
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.

	Summer RETAIL (Treated + Raw)	Total RETAIL (Treated + Raw)
2023	144,669,000	461,029,000
2022	140,440,000	460,811,000
2021	117,132,000	437,890,000
2020	132,218,000	473,593,000
2019	123,554,000	423,093,000
Average in Gallons	131,602,600.00	451,283,200.00

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

E. Water Loss

Water Loss data for the previous five years.

Year	Total Water Loss in Gallons	Water Loss in GPCD	Water Loss as a Percentage
2023	54,053,018	11	8.80 %
2022	60,849,130	12	6.35 %
2021	48,098,859	9	4.55 %
2020	59,602,961	11	5.80 %
2019	53,048,421	10	10.35 %
Average	55,130,478	11	7.17 %

F. Peak Day Use

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)
2023	1,263,093	1572489	1.2450
2022	1,262,495	1526521	1.2091
2021	1,199,698	1273173	1.0612
2020	1,297,515	1437152	1.1076
2019	1,159,158	1342978	1.1586

G. Summary of Historic Water Use

Water Use Category	Historic Average	Percent of Connections	Percent of Water Use
Residential - Single Family	256,094,200	51.20 %	56.75 %
Residential - Multi-Family	109,048,400	44.80 %	24.16 %
Industrial	0	0.00 %	0.00 %
Commercial	61,606,600	2.51 %	13.65 %
Institutional	4,753,000	0.10 %	1.05 %
Agricultural	19,781,000	1.39 %	4.38 %

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

H. System Data Comment Section

Section III: Wastewater System Data

A. Wastewater System Data

1. Design capacity of wastewater treatment plant(s) in gallons per day: 2,500,000

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

Water Use Category	Metered	Unmetered	Total Connections	Percent of Total Connections
Municipal	6,722	0	6,722	96.00 %
Industrial	0	0	0	0.00 %
Commercial	176	0	176	2.51 %
Institutional	7	0	7	0.10 %
Agricultural	97	0	97	1.39 %
Total	7,002	0	7,002	100.00 %

3. Percentage of water serviced by the wastewater system: 100.00 %

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

4. Number of gallons of wastewater that was treated by the utility for the previous five years.

Month	Total Gallons of Treated Water				
	2023	2022	2021	2020	2019
January	41,014,000	33,596,000	41,834,000	47,247,000	49,438,000
February	27,903,000	34,847,000	35,811,000	34,679,000	38,793,000
March	30,282,000	34,086,000	37,348,000	34,752,000	34,048,000
April	34,052,000	34,273,000	36,776,000	35,505,000	33,949,000
May	34,307,000	34,693,000	52,746,000	47,467,000	50,303,000
June	28,119,000	31,247,000	44,283,000	35,496,000	44,558,000
July	29,934,000	33,612,000	46,312,000	46,282,000	38,261,000
August	28,238,000	41,463,000	32,773,000	34,800,000	38,493,000
September	33,169,000	34,437,000	38,781,000	49,816,000	58,527,000
October	46,981,000	32,145,000	39,169,000	34,713,000	45,319,000
November	33,864,000	41,034,000	30,520,000	43,979,000	37,496,000
December	36,964,000	37,868,000	35,669,000	50,073,000	32,873,000
Total	404,827,000	423,301,000	472,022,000	494,809,000	502,058,000

5. Could treated wastewater be substituted for potable water?

Yes
 No

B. Reuse Data

1. Data by type of recycling and reuse activities implemented during the current reporting period.

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

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

C. Wastewater System Data Comment

Additional comments and files to support or explain wastewater system data listed below.



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

Name: City of Seabrook

Water Conservation Plan Year: 2023

	Historic 5-yr Average	Baseline*	5-yr Goal for year <u>2028</u>	10-yr Goal for year <u>2033</u>
Total (GPCD) ¹	105	100	100	98
Residential (GPCD) ²	72	80	70	68
Water Loss (GPCD) ³	11	10	7	6
Water Loss (Percentage) ⁴	10 %	10 %	7 %	6 %

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**

GPCD - Gallons Per Capita Per Day

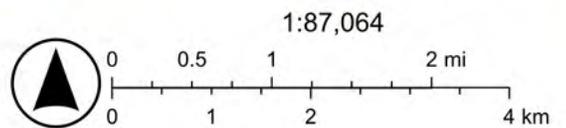
**A base use figure, or baseline, should be included to calculate your estimated savings. Consider state and regional targets and goals, local climate, and demographics (i.e. wet year versus dry year, high usage versus low usage)*

ArcGIS Web Map



2/28/2024, 7:52:53 AM

-  Water CCN Service Areas
-  Sewer CCN Service Areas



H.	Water Meter Re-Reads		
1	Note: If the city has made an error, then the fee will be refunded to the account.		\$25.00 per request
I.	Water Meter Test Fee		
1	1" or smaller meters, in-house		\$50.00
2	1½" or larger, outside contractor		Actual cost of outside contractor
J.	Meter Audit		
	Note meter read a maximum of two times		\$50.00
K.	Pretreatment Fees—Surcharge Industries		
1	Contract laboratory services		City's cost per sampling event
2	Administrative Fee		\$25.00 per hour
L.	Water rates effective September 15—October 15 billing cycle		
	Water rates for single meter residential and all commercial customers (single customer and multi customer commercial meters)		
	Water rates for single meter residential and all commercial customers (single customer and multi customer commercial meters)		
1	Meter size		Minimum bill (for first 2,000 gal.)
	¾"		\$20.00
	¾"		\$20.00
	1"		\$50.02
	1.5"		\$100.02
	2"		\$160.04
	3"		\$300.06
	4"		\$500.11
	6"		\$1,000.22
	8"		\$1,600.35
	10"		\$2,300.51
	All over 2,000 gallons to 10,000 gallons		\$7.00 per thousand gallons
	All over 10,000 gallons to 15,000 gallons		\$8.33 per thousand gallons
	All over 15,000 gallons		\$9.95 per thousand gallons
2	Water rates for multi-family meter customers		
	All gallons over the minimum allotment will be charged as follows:		A minimum charge of \$20.00 per month/per living unit. Minimum charge will include usage of up to 2,000 gallons per month, per unit
	4,001 to 10,000 gallons		\$8.33 per thousand gallons
	All over 10,000 gallons		\$8.33 per thousand gallons
	Water rates for multi-family meter customers (less than five units)		

		All gallons over the minimum allotment will be charged as follows:	a minimum charge of \$20.00 per month/per living unit. Minimum charge will include usage of up to 2,000 gallons per month, per unit.
		4,001 to 10,000 gallons	\$7.00 per thousand gallons
		All over 10,000 gallons	\$8.33 per thousand gallons
3		Sewer rates—Residential	
		First 2,000 gallons	\$25.00
		All over 2,000 gallons, per 1,000 gallons	\$6.53
		Maximum charge based on 16,000 gallons	\$102.26
4		Sewer rates—Commercial and industrial	
		First 2,000 gallons	\$35.44
		All over 2,000 gallons, per 1,000 gallons	\$8.58
M.		Wastewater Tap	
	1	4-inch	Developer is responsible
	2	6-inch	Developer is responsible
N.		Waste Water Maintenance	
	1	Reconnection to city main sewer line (Ord. No. 81-23)	\$200.00
	2	Grinder pump maintenance fee (Ord. No. 87-07; Code Sec. 95-133; Code 1976 12-74; Code 1196, 74-133)	
		Residential customer	\$6.00/month
		Commercial customer	\$25.00/month
DEFINITIONS:			
		<i>Light Commercial:</i>	Office and professional occupancy only.
		<i>Commercial:</i>	All businesses other than above.
		<i>Industrial:</i>	A process plant which discharges 70 percent or more of wastewater to storm sewer facilities as determined by the Director of Public Works.
		<i>Multi-family meter:</i>	Any water meter which serves more than one (1) living unit. For example, an apartment building has one (1) water meter to serve 10 separate apartment units. Or a duplex has one (1) water meter to serve two (2) separate duplex units.
		<i>Multi customer commercial meter:</i>	Any water meter which serves more than one (1) business or commercial enterprise. For example, a shopping plaza has one (1) water meter to serve 10 separate businesses/or shops.
		<i>Single customer meter:</i>	Any water meter which serves only one (1) living unit or one (1) commercial business or store.
*** On March 8, 1988, the City of Seabrook entered into a contract with the City of Pasadena to purchase potable water; the City of Seabrook received a letter from the City of Pasadena dated August 10, 2016, which stated the base price per thousand gallons of water being sold to the City of Seabrook was increasing from .7297 to .8937; the city council intends to adjust water rates to compensate for the increased charge from the City of Pasadena; and the city council intends to adjust water and sewer rates sufficient to pay the debt service for the certificates of obligation.			

Water Conservation Plan Annual Report

Retail Water Supplier

CONTACT INFORMATION

Name of Utility: CITY OF SEABROOK

Public Water Supply Identification Number (PWS ID): TX1010062

Certification of Convenience and Necessity (CCN) Number: 10858

Surface Water Right ID Number: _____

Wastewater ID Number: 20331

Check all that apply:

- Retail Water Supplier
- Wholesale Water Supplier
- Wastewater Treatment Utility

Address: 1100 Red Bluff Road City: Seabrook Zip Code: 77586

Email: kpadgett@seabrooktx.gov Telephone Number: 2812915656

Regional Water Planning Group: H

Groundwater Conservation District: _____

Contact: First Name: Kevin Last Name: Padgett

Title: Director Public Works

Is this person the designated Conservation Coordinator? Yes No

Coordinator: First Name: Brian Last Name: Craig

Title: Assistant Public Work Dir/
City Egn

Address: 1100 Red Bluff Road City: Seabrook Zip Code: 77586

Email: bcraig@seabrooktx.gov Telephone Number: 281-291-5719

Regional Water Planning Group: H

Groundwater Conservation District: _____

Reporting Period (Calendar year):

Period Begin (mm/yyyy): 01/2023 Period End (mm/yyyy): 12/2023

Check all that apply:

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

SYSTEM DATA

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

Retail Customer Water Usage Categories	
<input checked="" type="checkbox"/>	Residential - Single Family
<input checked="" type="checkbox"/>	Residential - Multi-family
<input type="checkbox"/>	Industrial
<input checked="" type="checkbox"/>	Commercial
<input checked="" type="checkbox"/>	Institutional
<input checked="" type="checkbox"/>	Agricultural

Retail Customers Categories*

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

*Recommended Customer Categories for classifying customer water use. For definitions, refer to [Guidance and Methodology on Water Conservation and Water Use](#).

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	3,585	272,665,000
Residential - Multi-family	3,137	99,491,000
Industrial	0	0
Commercial	176	62,594,000
Institutional	7	5,675,000
Agricultural	97	20,604,000
Total Retail Water Metered¹	7,002	461,029,000

*Residential + Industrial + Commercial + Institutional + Agricultural = Total Retail Water Metered

Water Use Accounting

	Total Gallons During the Reporting Period
1. Corrected Input Volume: The volume of treated water input to the distribution system from own production facilities. Same as line 13b of the Water Loss Audit for reporting periods ≥ 2015 . Same as line 14 of the Water Loss Audit for reporting periods ≤ 2014 .	43,980,612
2. Corrected Treated Purchased Water Volume: 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 Water Loss Audit for reporting periods ≥ 2015 . Same as line 15 of the Water Loss Audit for reporting periods ≤ 2014 .	581,056,122
3. Corrected Treated Wholesale Water Sales Volume: 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 for reporting periods ≥ 2015 . Same as line 16 of the Water Loss Audit for reporting periods ≤ 2014 .	107,057,143
4. 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 for reporting periods ≥ 2015 . Same as line 17 of the Water Loss Audit for reporting periods ≤ 2014 . Produced + Imported - Exported = Total System Input Volume	517,979,591
5. Billed Metered: All retail water sold and metered. Same as line 17 of the Water Loss Audit for reporting periods ≥ 2015 . Same as line 18 of the Water Loss Audit for reporting periods ≤ 2014 .	461,029,000
6. 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 lines 18, 19, and 20 of the Water Loss Audit for reporting periods ≥ 2015 . Same as lines 19, 20, and 21 of the Water Loss Audit for reporting periods ≤ 2014 .	2,897,573
7. Total Authorized Consumption: All water that has been authorized for use. Same as Line 21 of the Water Loss Audit for reporting periods ≥ 2015 . Same as line 22 of the Water Loss Audit for reporting periods ≤ 2014 . Total Billed and Metered Retail Water + Other Authorized Consumption = Total Authorized Consumption	463,926,573

8. Total 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 for reporting periods >= 2015. Same as line 28 of the Water Loss Audit for reporting periods <= 2014.	11,713,901
9. Total Real Loss: Physical losses from the distribution system prior to reaching the customer destination (losses due to reported breaks and leaks, physical losses from the system or mains and/or storage overflow). Same as line 30 of the Water Loss Audit for reporting periods >= 2015. Same as line 31 of the Water Loss Audit for reporting periods <= 2014.	42,339,117
10. Total Water Loss: Apparent + Real = Total Water Loss	54,053,018

Programs and Activities

1. What year did your entity adopt or revise their most recent Water Conservation Plan? 2018
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 cost analyses and long-term financial planning. Texas Best Management Practice can be found at TWDB's Water Conservation Best Management Practices [webpage](#). The [Alliance for 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	<input type="checkbox"/>		
Cost Effective Analysis	<input type="checkbox"/>		
Water Survey for Single Family and Multi-family Customers	<input type="checkbox"/>		
Customer Characterization	<input type="checkbox"/>		
Financial			
Wholesale Agency Assistance Programs	<input type="checkbox"/>		
Water Conservation Pricing	<input type="checkbox"/>		
System Operations			
Metering New Connections and Retrofitting Existing Connections	<input type="checkbox"/>		

Utility Water Audit and Water Loss	<input type="checkbox"/>		
Landscaping			
Landscape Irrigation Conservation and Incentives	<input type="checkbox"/>		
Athletic Fields Conservation	<input type="checkbox"/>		
Golf Course Conservation	<input type="checkbox"/>		
Park Conservation	<input type="checkbox"/>		
Residential Landscape Irrigation Evaluation	<input type="checkbox"/>		
Outdoor Watering Schedule	<input type="checkbox"/>		
Education and Public Awareness			
School Education	<input type="checkbox"/>		
Public Information	<input type="checkbox"/>		
Public Outreach and Education	<input checked="" type="checkbox"/>	50,000	0
Partnerships with Nonprofit Organizations	<input checked="" type="checkbox"/>	30,000	0
Rebate, Retrofit, and Incentive Programs			
Conservation Programs for ICI Accounts	<input type="checkbox"/>		
Residential Clothes Washer Incentive Program	<input type="checkbox"/>		
Water Wise Landscape Design and Conversion Programs	<input type="checkbox"/>		
Showerhead, Aerator, and Toilet Flapper Retrofit	<input type="checkbox"/>		
Residential Toilet Replacement Programs	<input type="checkbox"/>		
Custom Conservation Rebates	<input type="checkbox"/>		
Plumbing Assistance for Economically Disadvantaged Customers	<input type="checkbox"/>		
Conservation Technology & Reuse			
New Construction Graywater	<input type="checkbox"/>		
Rainwater Harvesting and Condensate Reuse	<input checked="" type="checkbox"/>	35,000	0
Water Reuse BMP Categories			
Reuse for On-site Irrigation	<input type="checkbox"/>		
Reuse for Plant Washdown	<input type="checkbox"/>		
Reuse for Chlorination/Dechlorination	<input type="checkbox"/>		
Reuse for Industry	<input type="checkbox"/>		
Reuse for Agriculture	<input type="checkbox"/>		
Regulatory and Enforcement			
Prohibition on Wasting Water	<input type="checkbox"/>		
Conservation Ordinance Planning and Development	<input type="checkbox"/>		
Enforcement of Irrigation Standards	<input type="checkbox"/>		
Retail			
Other	<input type="checkbox"/>		
Totals		115,000	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 ¹	Dollar Value of Water Saved ²
115,000	0	115,000	115

¹Estimated Gallons Saved + Estimated Gallons Recycled/Reused = Total Volume Saved

²Estimated this value by taking into account water savings, the cost of treatment or purchase of water, and deferred capital cost due to conservation.

5. Comments or Explanations Regarding Data Entered in Sections Above.
 Files to support or explain this may be attached below.

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

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

<input checked="" type="checkbox"/>	Uniform Rates
<input type="checkbox"/>	Flat Rates
<input type="checkbox"/>	Inclining/Inverted Block Rates
<input type="checkbox"/>	Declining Block Rates
<input type="checkbox"/>	Seasonal Rates
<input checked="" type="checkbox"/>	Water Budget Based Rates
<input checked="" type="checkbox"/>	Excess Use Rates
<input type="checkbox"/>	Drought Demand Rates
<input type="checkbox"/>	Tailored Rates
<input checked="" type="checkbox"/>	Surcharge - usage demand
<input type="checkbox"/>	Surcharge - seasonal
<input type="checkbox"/>	Surcharge - drought
<input type="checkbox"/>	Other

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

Name	Implemented This Year	Number Of Times This Year	Total Population Reached this Year
Brochures Distributed	<input checked="" type="checkbox"/>	2	150
Messages Provided on Utility Bills	<input checked="" type="checkbox"/>	1	15,000
Press Releases	<input type="checkbox"/>		
TV Public Service Announcements	<input type="checkbox"/>		
Radio Public Service Announcements	<input type="checkbox"/>		
Educational School Programs	<input type="checkbox"/>		
Displays, Exhibits, and Presentations	<input type="checkbox"/>		
Community Events	<input type="checkbox"/>		
Social Media campaign - Facebook	<input checked="" type="checkbox"/>	1	15,000
Social Media campaign - Twitter	<input checked="" type="checkbox"/>	1	15,000
Social Media campaign - Instagram	<input checked="" type="checkbox"/>	1	15,000
Social Media campaign - YouTube	<input type="checkbox"/>		
Facility Tours	<input type="checkbox"/>		
Other	<input type="checkbox"/>		
Total		6	60,150

Leak Detection and Water Loss

1. During this reporting period, how many leaks were repaired in the system or at service connections? 115

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

Water Loss Causes	
<input checked="" type="checkbox"/>	Distribution line leaks and breaks
<input type="checkbox"/>	Unauthorized use and theft

<input type="checkbox"/>	Master meter problems
<input type="checkbox"/>	Customer meter problems
<input type="checkbox"/>	Record and data problems
<input type="checkbox"/>	Other

3. For this reporting period, provide the following information on your distribution lines.

Total Length of Main Lines (miles)	Total Length Repaired (feet)	Total Length Replaced (feet)
54	150	1130

4. For this reporting period, provide the following information regarding your meters:

Type of Meter	Total Number	Total Tested	Total Repaired	Total Replaced
Production Meters	4011	0	0	54
Meters larger than 1 1/2 inches	120	0	0	0
Meters 1 1/2 inches or smaller	3891	0	0	54

5. Does your system have automated meter reading? Yes No

Program Effectiveness

1. Program Effectiveness

In your opinion, how would you rank the overall effectiveness of your conservation programs and activities?

Customer Classification	Less Than Effective	Somewhat Effective	Highly Effective	Does Not Apply
Residential Customers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Industrial Customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Institutional Customers	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Commercial Customers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural Customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. During the reporting period, did you implement your Drought Contingency Plan? Yes No

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

Technical Assistance Areas	
<input checked="" type="checkbox"/>	Best Management Practices
<input checked="" type="checkbox"/>	Drought Contingency Plans
<input type="checkbox"/>	Landscape Irrigation
<input checked="" type="checkbox"/>	Leak Detection and Equipment
<input type="checkbox"/>	Rainwater Harvesting
<input type="checkbox"/>	Rate Structures
<input checked="" type="checkbox"/>	Educational Resources
<input type="checkbox"/>	Water Conservation Annual Reports
<input type="checkbox"/>	Water Conservation Plans
<input type="checkbox"/>	Water IQ: Know Your Water
<input type="checkbox"/>	Water Loss Audits
<input type="checkbox"/>	Recycling and Reuse

Water Loss, Target and Goals

Total, Residential and Water Loss Gallons Per Capita per Day (GPCD) and Water Loss Percentage

The tables below display your current GPCD totals and water loss percentage for your service area.

Total System Input in Gallons Water Produced + Wholesale Imported - Wholesale Exported	Retail Population ¹	Total GPCD (System Input / Retail Population) / 365
517,979,591	13,927	102

¹Retail 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 (Residential Use / Residential Population) / 365
372,156,000	13,927	73

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

Total Water Loss in Gallons Apparent + Real = Total Water Loss	Retail Population	Water Loss GPCD ³	Water Loss Percent
54,053,018	13,927	11	10.44%

³(Total Water Loss / Residential Population) / 365 = Water Loss GPCD
 (Total Water Loss / Total System Input) * 100 = Water Loss Percentage

The table below displays the specific and quantified five-year and ten-year goals listed in your current Water Conservation Plan alongside the current GPCD and water loss totals.

Achieve Date	Target for Total GPCD	Current Total GPCD	Target for Residential GPCD	Current Residential GPCD	Target for Water Loss GPCD	Current Water Loss GPCD	Target for Water Loss Percentage	Current Water Loss Percentage
Five-year Target Date 2023	110	102	80	73	7	11	6.36 %	10.44 %
Ten-year Target Date 2028	100	102	70	73	6	11	6.00 %	10.44 %