CITY OF SEABROOK
ORDINANCE NO. 2018-05

AMENDING THE WATER CONSERVATION & 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 UPDATING 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 PLAN INTO THE CODE INSTEAD OF BY REFERENCE ONLY, AS DEPICTED IN EXHIBIT "A".

THIS ORDINANCE PROVIDES A PENALTY OF A FINE NOT TO EXCEED THE SUM OF TWO THOUSAND DOLLARS ($2,000.00) FOR EACH OFFENSE RELATING TO FIRE SAFETY AND FIVE HUNDRED DOLLARS ($500.00) FOR ALL OTHER OFFENSES; REPEALS ALL ORDINANCES OR PARTS OF ORDINANCES INCONSISTENT OR IN CONFLICT HEREWITH; PROVIDES FOR SEVERABILITY AND PROVIDES 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 recognizes that due to normal limitations due to drought conditions, system failures and other acts of God which may occur, the City cannot guarantee an uninterrupted water supply for all purposes at all times; 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 15, 2012, which added a new section to the Seabrook Code of Ordinances entitled, "Drought Contingency Plan for a Wholesale Public Water Supplier"; 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.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SEABROOK, TEXAS, THAT:

SECTION 1. The facts and recitations contained in the above preamble of this Ordinance are hereby incorporated herein for all purposes.

SECTION 2. AMENDMENT TO THE CODE.

Chapter 95 of the Code of Ordinances of the City of Seabrook 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 showing the update to the Water Rate Structure, as contained in Exhibit "A" attached hereto and incorporated by reference.

SECTION 3. PENALTY CLAUSE.

Any person violating any of the provisions of this division shall be deemed guilty of a misdemeanor and, upon conviction, shall be fined in a sum not to exceed $2,000.00 for each offense relating to fire safety and $500.00 for all other violations. A separate offense shall be deemed committed upon each day during or on which a violation occurs or continues. The City may seek further injunctive relief to stop on-going violations of this ordinance.

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.

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 AND APPROVED 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 16th day of January, 2018.

PASSED, APPROVED, AND ADOPTED 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 6th day of February, 2018.

By: _____
Thomas G. Kolupski
Mayor

ATTEST:

By: _____
Robin Hicks, TRMC
City Secretary

THE CITY OF SEABROOK TEXAS

APPROVED AS TO FORM:

_____
Steven L. Weathered
City Attorney

EXHIBIT "A"

City of Seabrook

1700 First Street, Seabrook Texas 77586

(CCN# 10858)

(PW# 1010062)

Water Conservation And Drought Contingency Plan

REVISED JANUARY 2018

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City of Seabrook

Water Conservation / Drought Contingency Plan

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 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 singly by one person.

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.

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, hotel, retail facilities and nursery operations.

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.

Landscape watering - the application of water to grow landscape plants.

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 plan*t* - 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 not required for the protection of public health, safety, or welfare, including:

1) Irrigation of landscape areas, including parks, greenbelt areas, athletic fields, and golf courses, except where otherwise provided under the Water Conservation / Drought Contingency Plan.
2) Washing of any motor vehicle, boat, or trailer.
3) Washing or rinsing of any sidewalk, walkway, driveway, parking lot, tennis court, or other hard-surfaces area.
4) Washing of buildings or structures for purposes other than immediate fire protection.
5) Flushing gutters or permitting water to run or accumulate in any gutter, alley or street.

6. Filling, refilling, or adding water to any indoor or outdoor swimming pool or spa.
7. Operating a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life.

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 purpose.

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* - w**here 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. during Central Daylight Savings Time or beginning at 6:00 p.m. on Tuesday and ending Wednesday at 8:00 a.m. during Central Standard Time.
2) Buildings and premises with odd-numbered addresses - Thursdays only beginning at 7:00 p.m., and ending Fridays at 8:00 a.m. during Central Daylight Savings Time or beginning at 6:00 p.m. on Tuesday and ending Wednesday at 8:00 a.m. during Central Standard Time.

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.

4.0 Texas Commission on Environmental Quality Rules

4.1 Conservation Plans

The TCEQ rules governing development of water conservation plans for public water suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2 of the Texas Administrative Code. For the purpose of these rules, a water conservation plan is defined as:

"A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficient in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management document(s)."

According to TCEQ rules, water conservation plans for public water suppliers must have a certain minimum content (Section 5), must have additional content for public water suppliers that are projected to supply 5,000 or more people in the next ten years (Section 6), and may have additional operation content (Section 7).

4.2 Drought Contingency Plans

The TCEQ rules governing development of drought contingency plans for suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.20 of the Texas Administrative Code. For the purpose of these rules, a drought contingency plan is defined as:

"A strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies. A drought contingency plan may be a separate document identified as such or may be contained within another water management document(s)."

5.0 Water Conservation Plan Content

The minimum requirements in the Texas Administrative Code for water conservation plans for public drinking water suppliers covered in this report are as follows:

§288.2(a)(1)(A) – Utility Profile – Section 5.1
§288.2(a)(1)(B) – Specification of Goals – Section 5.2
§288.2(a)(1)(C) – Accurate Metering – Sections 5.3 and 5.4
§288.2(a)(1)(D) – Universal Metering – Section 5.4
§288.2(a)(1)(E) – Determination and Control of Unaccounted Water – Section 5.5
§288.2(a)(1)(F) – Public Education and Information Program - Section 5.6
§288.2(a)(1)(G) – Non-Promotional Water Rate Structure – Section 5.7
§288.2(a)(1)(I) – Means of Implementation and Enforcement – Section 5.8

5.1 Utility Profile

Table 5.1 below along with Appendix B summarizes key facts of the Water Utility Profile.

5.2 Specification of Water Conservation Goals

Table 5.2 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 5.1
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 City of Pasadena – Surface Water Supply
Population	2016 population = 12,100 2020 population = 12,797 2030 population = 13,005
Connections	6,456 in 2016 (Single fam., Multi-fam., Com., Institutional and Ag.) Total Increase in Connections since 2014 = 403

Water Use Information

Year Use (Gallons)	Estimated Population	Water Loss (In Percent)	Peak Day in MGD
486,985,158 (2014)	11,952	7%	2.983
509,449,473 (2015)	12,100	10%	3.503
535,172,632 (2016)	12,100	10%	2.989

Water Treatment System
City of Pasadena's Subscription = 3.0 million gallons per day.
City of Seabrook's 3 ground water wells = 30 million gallons per year.

Total Annual Wastewater Flow =448.55 MG in 2016.

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 5.2 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 110 gpcd and 100 gpcd (respectively) based on historic 5 year averages as shown in Table 5.2.
- The City of Seabrook has established a 5 and 10 year goal for residential per capita water consumption at 80 gpcd and 70 gpcd (respectively) based on historic 5 year averages as shown in Table 5.2.

Table 5.2
Historical Total and Residential Per Capita Use and Water Conservation Goals

	(year) gpcd
Historical Total Per Capita Use	(2012) 118 (2013) 118 (2014) 112 (2015) 115 (2016) 121
Historical Residential Per Capita Use	(2012) 91 (2013) 91 (2014) 85 (2015) 82 (2016) 83
Historic Total Per Capita 5 Yr. Average	117 gpcd
5 Yr. Total Per Capita Water Use Goal	110 gpcd
10 Yr. Total Per Capita Water Use Goal	100 gpcd
Historic Residential Per Capita 5 Yr. Average	86 gpcd
5 Yr. Residential Per Capita Water Use Goal	80 gpcd
10 Yr. Residential Per Capita Water Use Goal	70 gpcd

The city's water conservation goals include the following:

- Maintain the city's ongoing meter replacement program (Section 5.4)
- Reach a level of water loss in the system of 6 percent in 2017 and subsequent years (Section 5.5).
- Raise public awareness of water conservation and encourage responsible public behavior through a public education and information program as discussed in Section 5.6.
- Decrease outdoor water use by implementing a landscape irrigation systems program (Section 7.3).

Goals for the Program (5-year target and goals):

- The City of Seabrook goals are:
    - to achieve a total use of 110 gallons per capita per day for the first five years beginning in the year 2017,
    - to achieve a residential use of 80 gallons per capita per day for the first five years beginning in the year 2017, and
    - achieve a total use water loss of 7 gallons per capita per day for the next five years beginning in the year 2017.

Goals for the Program (10 year target and goals):

- The City of Seabrook goals are:
    - to achieve a total use of 100 gallons per capita per day for the next ten years beginning in the year 2017,
    - to achieve a residential use of 70 gallons per capita per day for the next ten years

beginning in the year 2017, and

- achieve a total use water loss of 6 gallons per capita per day for the next ten years beginning in the year 2017.

5.3 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 in order to maintain the required accuracy and are repaired and/or replaced as needed.

5.4 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.

5.5 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 8% 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 6% annually.

5.6 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, 5, 6 and 7.)
- 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.

5.7 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 (2017) are shown in Table 5.3.

Table 5.3
Monthly Customer Charges

Single Family Residential and Commercial Use and Irrigation	
for Meter readings taken monthly	
first 2,000 gallons, 5/8 meter, minimum bill	$13.40
All over 2,000 – 10,000 gallons, per 1,000 gallons	$3.94
10,000 - 15,000 gallons, per 1,000 gallons	$4.69
All over 15,000 gallons, per 1,000 gallons	$5.60

Multi-Family Use	
for meter readings taken monthly	
first 2,000 gallons, minimum bill	$13.40
4,001 – 10,000 gallons, per 1,000 gallons	$3.94
All over 10,000 gallons, per 1,000 gallons	$4.69

5.8 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

Title 30 of the Texas Administrative Code also includes additional requirements for water conservation plans for public drinking water suppliers that serve a population of 5,000 people or more and/or a projected population of 5,000 people or more within the next ten years:

- §288.2(a)(2)(A) - Leak Detection Repairs, and Water Lost Accounting - Sections 5.5 and 6.3
- §288.2(a)(2)(B) - Record Management System - Section 6.2

6.0 Additional Required Water Conservation Plan Content

6.1 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.

6.2 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.

7.0 Optional Water Conservation Plan Content

TCEQ rules also list optional conservation strategies, which may be adopted by suppliers to achieve the stated goals of the plan. The following optional strategies are listed in the rules and included in this plan:

- §288.2(a)(3)(A) – Conservation Oriented Water Rates - Section 5.7
- §288.2(a)(3)(B) – Ordinances, Plumbing Codes, or Rules on Water-Conserving Fixtures - Section 7.1
- §288.2(a)(3)(G) – Monitoring Method - Section 7.2

In addition, the City of Seabrook will also purse the following optional water conservation strategies that exceed those suggested in the rules:

- Residential Landscape Irrigation System Program - Section 7.3

7.1 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.

7.2 Monitoring of Effectiveness and Efficiency - Annual Conservation Report

An annual report provided by the TWDB (Appendix E) 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 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.

7.3 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.

8.0 Drought Contingency Plan

8.1 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.

(Continued on next page)

8.2 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 in order to optimize available water supplies; and
(J) a means of implementation and enforcement which shall be evidenced by:
(i) a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the water supplier; and
(ii) a description of the authority by which the water supplier will implement and enforce the conservation plan; and

(K) documentation of coordination with the regional water planning groups for the service area of the public water supplier in order to ensure consistency with the appropriate approved regional water plans.
(2) Additional content requirements. Water conservation plans for municipal uses by public drinking water suppliers serving a current population of 5,000 or more and/or a projected population of 5,000 or more within the next ten years subsequent to the effective date of the plan must include the following elements:
(A) a program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system 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 into or renewed after official adoption of the plan (by either ordinance, resolution, or tariff), and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements in this chapter. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.
(3) Additional conservation strategies. Any combination of the following strategies shall be selected by the water supplier, in addition to the minimum requirements in paragraphs (1) and (2) of this subsection, if they are necessary to achieve the stated water conservation goals of the plan. The commission may require that any of the following strategies be implemented by the water supplier if the commission determines that the strategy is necessary to achieve the goals of the water conservation plan:
(A) conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;
(B) adoption of ordinances, plumbing codes, and/or rules requiring water-conserving plumbing fixtures to be installed in new structures and existing structures undergoing substantial modification or addition;
(C) a program for the replacement or retrofit of water-conserving plumbing fixtures in existing structures;
(D) reuse and/or recycling of wastewater and/or 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

8.3 Implementation Phases

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

Regulation

1) Trigger Level: Water use from Pasadena exceeds 2.55 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:

l) Watering between 8 a.m. and 7 p.m. is prohibited. (MANDATORY)

2) Watering with automated irrigation systems or with sprinklers is permitted from 7 p.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 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 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.

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

Regulation

1. Trigger Level: Water use from Pasadena exceeds 90 percent of allotment (2.7) 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 7 p.m. to 8 a.m. on Tuesdays.
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.

8.3.4 STAGE III - AQUIFER ALERT (SEVERE SHORTAGE CONDITIONS)

Regulation

1. Trigger Level: Water use from Pasadena is 95% of allocation (2.85 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.

8.3.5 STAGE IV - AQUIFER RISK (CRITICAL WATER SHORTAGE CONDITION)

Regulation

1. Trigger Level: Water use from Southeast Plant exceeds 100% of allotment 3 MGD for five consecutive days.
2. Reduction goal: 30%
3. Waste is prohibited. Waster 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 $ l,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 s recommended.

8.3.6 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.

9.0 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 8.3), 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.

10.0 Drought Contingency Plan for a Wholesale Public Water Supplier.

10.1 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).

10.2 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.

10.3 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.

10.4 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.

10.5 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.

10.6 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.

10.7 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.

10.7.1 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 3 million gallons per day for 5 consecutive days (2.55 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.

10.7.2 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 3 million gallons per day for 5 consecutive days (2.70 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.

10.7.3 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 3 million gallons per day for 5 consecutive days (2.85 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.

10.7.4 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 3 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.

10.7.5 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.

10.8 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:

10.8.1 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).

10.8.2 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.

10.8.3 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.

10.8.4 Stage 4 Response -- EMERGENCY Water Shortage Conditions

Whenever emergency water shortage conditions exist as defined in Section 8 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.

10.8.5 STAGE V: RESPONSE AQUIFER EMERGENCY

Whenever emergency water shortage conditions exist as defined in Section 8 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.

10.9 Pro Rata Water Allocation

In the event that the triggering criteria specified in Section 8 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.

10.10 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.

10.11 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.

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

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

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

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

APPENDIX A

WATER CONSERVATION PLAN GUIDANCE CHECKLIST

(Formerly WRD-022)

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 public utilities 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 an 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 set goals to be accomplished by water conservation measures. 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 of why the requirement is not applicable. The TWDB will accept current Water Conservation Plans determined by the Texas Commission on Environmental Quality (TCEQ) to satisfy the requirements of 30 TAC Chapter 288.

Basically, 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. It contains best management practices measures intended to meet the targets and goals identified in the plan. *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 supply emergencies.

THE WATER CONSERVATION PLAN REQUIREMENTS:

A. X 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 ***Water Conservation Utility Profile,*** **TWDB-1965** as part of the evaluation is required and should be submitted with 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.

B. X Inclusion of five-year and ten–year targets that are specific and quantified for water savings and include goals for water loss programs in gallons per capita per day, and goals for municipal use and residential use, in gallons per capita per day. A base use figure should be included to be able to calculate your savings. Consider state and regional targets and goals, local climate, and demographics. Consider the anticipated savings that can be achieved by utilizing appropriate best management practices and other conservation techniques.

C. X A schedule for implementing the plan to achieve the applicant's targets and goals.

D. X A method for tracking the implementation and effectiveness of the plan. The method should track annual water use and provide information sufficient to evaluate the implementation of conservation measures. The plan should measure progress annually, and evaluate the progress towards meeting the goals.

E. X A master meter to measure and account for the amount of water diverted from the source of supply.

F. X A program of universal metering of both customer and public uses of water, for meter testing, repair and for periodic replacement.

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

H. __X__ A continuous program of leak detection, repair, and water loss accounting for the transmission, delivery, and distribution system in order to control water loss.

I. __X__ 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.

J. __X__ 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 copy of the rate structure.

K. __X__ 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 conservation plan.

L. __X__ If the Applicant will utilize the project financed by the TWDB to 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.

M. __X__ Documentation that the regional water planning group for the service area of the applicant has been notified of the applicant's water conservation plan.

Note: The water conservation plan may also include other conservation methods or techniques that the applicant deems appropriate.

N. The Drought Contingency Plan (for Financial Assistance Programs) shall include:

1. __X__ **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. __X__ **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. X **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. X **Variances and enforcement.** The plan should specify procedures for considering (approving and denying) variances 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. X **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.

0. X **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 an entity's board of directors.

P. X **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: ***Water Conservation Plan Annual Report*, TWDB-1966 for retail water suppliers, TWDB-1967 for non-water suppliers and 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

Water Conservation Plan Forms:
http://www.twdb.texas.gov/conservation/municipal/plans/index.asp

Best Management Practices Information:
http://www.twdb.texas.gov/conservation/bmps/index.asp

Quantification Techniques:
http://www.twdb.texas.gov/conservation/municipal/plans/doc/GDSReport.pdf

APPENDIX B

Texas Water Development Board

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

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

CONTACT INFORMATION

Name of Utility: City of 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

Completed By: Brian Craig Title: Asst Director Pub Works

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

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

Date: _____

Regional Water Planning Group: H Map

Groundwater Conservation District: _____ Map

Check all that apply:

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

Texas Water Development Board

Section I: Utility Data

A. Population and Service Area Data

1. Current service area size in square miles: 13
(Attach or email a copy of the service area map.)

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

Year	Historical Population Served By Retail Water Service	Historical Population Served By Wholesale Water Service	Historical Population Served By Wastewater Service
2016	12,100	2,774	12,100
2015	12,100		12,100
2014	11,952		11,952
2013	11,952		11,952
2012	11,952		11,952

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

Year	Projected Population Served By Retail Water Service	Projected Population Served By Wholesale Water Service	Projected Population Served By Wastewater Service
2020	12,797	2,733	
2030	13,005	2,750	
2040	13,238	2,762	
2050	13,476	2,773	
2060	13,717	2,758	

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

Used TWDB 2016 Regional Water Plan - Population Projections for 2020 - 2070 City Summary for Seabrook (retail) and El Lago (wholesale).

Texas Water Development Board

B. System Input

Provide system input data for the previous five years.

Total System Input = Self-supplied + Imported – Exported

Year	Self-supplied Water in Gallons	Purchased/Imported Water in Gallons	Exported Water in Gallons	Total System Input	Total GPCD
2016	10,766,316	651,300,000	126,893,684	535,172,632	121
2015	24,550,526	609,036,842	124,137,895	509,449,473	115
2014	14,263,158	594,815,000	122,093,000	486,985,158	112
2013	3,157,000	647,586,000	137,788,000	512,955,000	118
2012	4,992,000	646,405,000	134,901,000	516,496,000	118
Historic 5-year Average	11,545,800	629,828,568	129,162,716	512,211,653	117

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

1. Designed daily capacity of system 3,082,192 **gallons** per day.
2. Storage Capacity:
   Elevated 1,500,000 **gallons**
   Ground 1,000,000 **gallons**

3. List all current water supply sources in gallons.

Water Supply Source	Source Type*	Total Gallons
Ground Water	Ground	4,600,000
City of Pasadena	Contract	3,000,000
	Choose One	
	Choose One	
	Choose One	
	Choose One	

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

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

D. Projected Demands

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

Year	Population	Water Demands (gallons)
2018	12,449	531,613,193
2019	12,623	539,054,539
2020	12,797	546,495,885
2021	12,818	547,384,149
2022	12,839	548,272,413
2023	12,859	549,160,677
2024	12,880	550,048,941
2025	12,901	550,937,205
2026	12,922	551,825,469
2027	12,943	552,713,733

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

Population growth is average difference between 2016 - 2020 and 2020 - 2030 data from "TWDB 2016 Regional Water Plan - Population Projections for 2020 - 2070 City Summary" added back to previous year population.

Water demand is based on historic 5 year average of 117 gpcd * 365 days * population.

E. High Volume Customers

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

Retail Customer	Water Use Category*	Annual Water Use	Treated or Raw
Bar Harbor	Commercial	14,037,000	Treated
Vista Shores Apts.	Residential	12,803,000	Treated
Pirates Landing	Residential	11,776,000	Treated
Seatree Apts.	Residential	9,334,000	Treated
Axiom Bay Park, LLC	Residential	6,265,000	Treated

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

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

Wholesale Customer	Water Use Category*	Annual Water Use	Treated or Raw
City of El Lago	Municipal	120,549,000	Treated
	Choose One		Choose One
	Choose One		Choose One
	Choose One		Choose One
	Choose One		Choose One

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

F. Utility Data Comment Section

Provide additional comments about utility data below.

Texas Water Development Board

Section II: System Data

A. Retail Connections

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

Water Use Category*	Active Retail Connections			
	Metered	Unmetered	Total Connections	Percent of Total Connections
Residential – Single Family	3,371	0	3,371	52%
Residential – Multi-family (units)	2,788	0	2,788	43%
Industrial	0	0	0	0%
Commercial	192	0	192	3%
Institutional	8	0	8	0%
Agricultural	97	0	97	2%
TOTAL	6,456	0	6,456	

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

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

Water Use Category*	Net Number of New Retail Connections				
	2016	2015	2014	2013	2012
Residential – Single Family	3,371	3,443	3,336	3,359	3,382
Residential – Multi-family (units)	2,788	2,402	2,402	2,338	2,338
Industrial	0	0	0	0	0
Commercial	192	198	222	288	288
Institutional	8	35	93	34	0
Agricultural	97	94	0	0	0
TOTAL	6,456	6,172	6,053	6,019	6,008

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

Texas Water Development Board

B. Accounting Data

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

Water Use Category*	Total Gallons of Retail Water				
	2016	2015	2014	2013	2012
Residential - Single Family	261,356,000	264,429,000	279,138,000	294,208,000	299,047,000
Residential – Multi-family	104,262,000	98,312,000	90,906,000	101,757,000	96,096,000
Industrial	0	0	0	0	0
Commercial	62,462,000	61,943,000	69,441,000	77,530,000	78,772,000
Institutional	4,396,000	5,581,000	6,769,000	7,244,000	7,773,000
Agricultural	20,480,000	18,237,000	0	0	0
TOTAL	452,956,000	448,502,000	446,254,000	480,739,000	481,688,000

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

C. Residential Water Use

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

Water Use Category*	Residential GPCD				
	2016	2015	2014	2013	2012
Residential - Single Family	108	102	110	114	116
Residential – Multi-family	52	54	50	57	54

D. Annual and Seasonal Water Use

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

Month	Total Gallons of Treated Retail Water				
	2016	2015	2014	2013	2012
January	39,996,000	41,827,000	43,433,000	42,668,000	42,621,000
February	41,480,000	39,478,000	37,018,000	40,583,000	38,608,000
March	48,365,000	42,913,000	43,191,000	56,322,000	45,557,000
April	47,067,000	44,819,000	50,308,000	49,646,000	51,741,000
May	49,613,000	45,305,000	59,267,000	58,660,000	61,586,000
June	49,959,000	51,845,000	60,468,000	62,230,000	70,430,000
July	74,620,000	70,726,000	60,679,000	67,700,000	58,548,000
August	64,652,000	69,731,000	67,228,000	69,934,000	65,712,000
September	55,659,000	52,603,000	49,254,000	67,081,000	60,044,000
October	59,037,000	58,340,000	50,773,000	48,744,000	58,667,000
November	52,098,000	43,036,000	44,440,000	43,935,000	53,199,000
December	46,417,000	41,285,000	42,306,000	43,240,000	44,684,000
TOTAL	628,963,000	601,908,000	608,365,000	650,743,000	651,397,000

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

Month	Total Gallons of Raw Retail Water				
	2016	2015	2014	2013	2012
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
TOTAL	0	0	0	0	0

3. Summary of seasonal and annual water use.

Water Use	Seasonal and Annual Water Use					Average in Gallons
	2016	2015	2014	2013	2012	
Summer Retail (Treated + Raw)	189,231,000	192,302,000	188,375,000	199,864,000	194,690,000	192,892,400 5yr Average
TOTAL Retail (Treated + Raw)	628,963,000	601,908,000	608,365,000	650,743,000	651,397,000	628,275,200 5yr Average

E. Water Loss

Provide Water Loss data for the previous five years.

Water Loss GPCD = [Total Water Loss in Gallons ÷ Permanent Population Served] ÷ 365

Water Loss Percentage = [Total Water Loss ÷ Total System Input] x 100

Year	Total Water Loss in Gallons	Water Loss in GPCD	Water Loss as a Percentage
2016	53,003,974	12	10%
2015	50,726,925	11	10%
2014	34,643,844	8	7%
2013	12,216,000	3	2%
2012	12,808,000	3	2%
5-year average	32,679,749	7	6%

F. Peak Water Use

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

Year	Average Daily Use (gal)	Peak Day Use (gal)	Ratio (peak/avg)
2016	1,736,090	2,989,000	1.72
2015	1,678,208	3,503,000	2.09
2014	1,678,414	2,983,000	1.78
2013	1,785,798	3,303,000	1.85
2012	1,793,344	3,692,000	2.06

G. Summary of Historic Water Use

Water Use Category	Historic 5-year Average	Percent of Connections	Percent of Water Use
Residential SF	279,635,600	52%	0%
Residential MF	98,266,600	43%	0%
Industrial	0	0%	0%
Commercial	70,029,600	3%	0%
Institutional	6,352,600	0%	0%
Agricultural	7,743,400	2%	0%

H. System Data Comment Section

Provide additional comments about system data below.

Appears Section G; Percent of Water Use pdf form equation is not working. Not sure why it shows 0%.
Percent of Water Use should be:
Residential SF = 61%
Residential MF = 21%
Industrial = 0%
Commercial = 15%
Institutional = 1%
Agricultural = 2%

Texas Water Development Board

Section III: Wastewater System Data

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

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

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

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

Water Use Category*	Active Wastewater Connections			
	Metered	Unmetered	Total Connections	Percent of Total Connections
Municipal	6,159	0	6,159	95%
Industrial	0	0	0	0%
Commercial	192	0	192	3%
Institutional	8	0	8	0%
Agricultural	97	0	97	2%
TOTAL	6,456	0	6,456	

2. What percent of water is serviced by the wastewater system? 100 %

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

Month	Total Gallons of Treated Wastewater				
	2016	2015	2014	2013	2012
January	43,090,000	43,090,000	27,435,000	41,478,000	37,014,000
February	29,680,000	27,776,000	26,012,000	28,168,000	41,328,000
March	38,440,000	50,840,000	29,140,000	27,590,000	46,810,000
April	45,000,000	41,100,000	25,680,000	34,800,000	37,200,000
May	39,370,000	51,770,000	31,310,000	34,100,000	40,300,000
June	46,200,000	50,700,000	29,700,000	32,100,000	30,000,000
July	27,900,000	33,480,000	30,690,000	31,620,000	36,270,000
August	38,750,000	38,440,000	30,318,000	31,000,000	30,969,000
September	34,500,000	43,800,000	34,800,000	34,800,000	30,000,000
October	31,620,000	49,600,000	33,790,000	39,680,000	27,249,000
November	30,600,000	42,900,000	36,000,000	34,500,000	26,040,000
December	43,400,000	36,270,000	39,060,000	28,675,000	33,325,000
TOTAL	448,550,000	509,766,000	373,935,000	398,511,000	416,505,000

4. Can treated wastewater be substituted for potable water?

○ Yes ◉ No

B. Reuse Data

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

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

C. Wastewater System Data Comment

Provide additional comments about wastewater system data below.

Treatment Plant Name: Seabrook WWTP
TCEQ DM Number: TX0022250
Operator: City of Seabrook
Owner: City of Seabrook
Receiving Stream: Galveston Bay

The City of Seabrook's wastewater system is composed of approximately 60 miles of wastewater collection mains, 19 wastewater lift stations and one wastewater treatment plant (TX0022250). Wastewater is treated and dry hauled from the plant through use of a contractor. The receiving stream for this effluent is Galveston Bay.

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

APPENDIX C

Texas Water Development Board

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

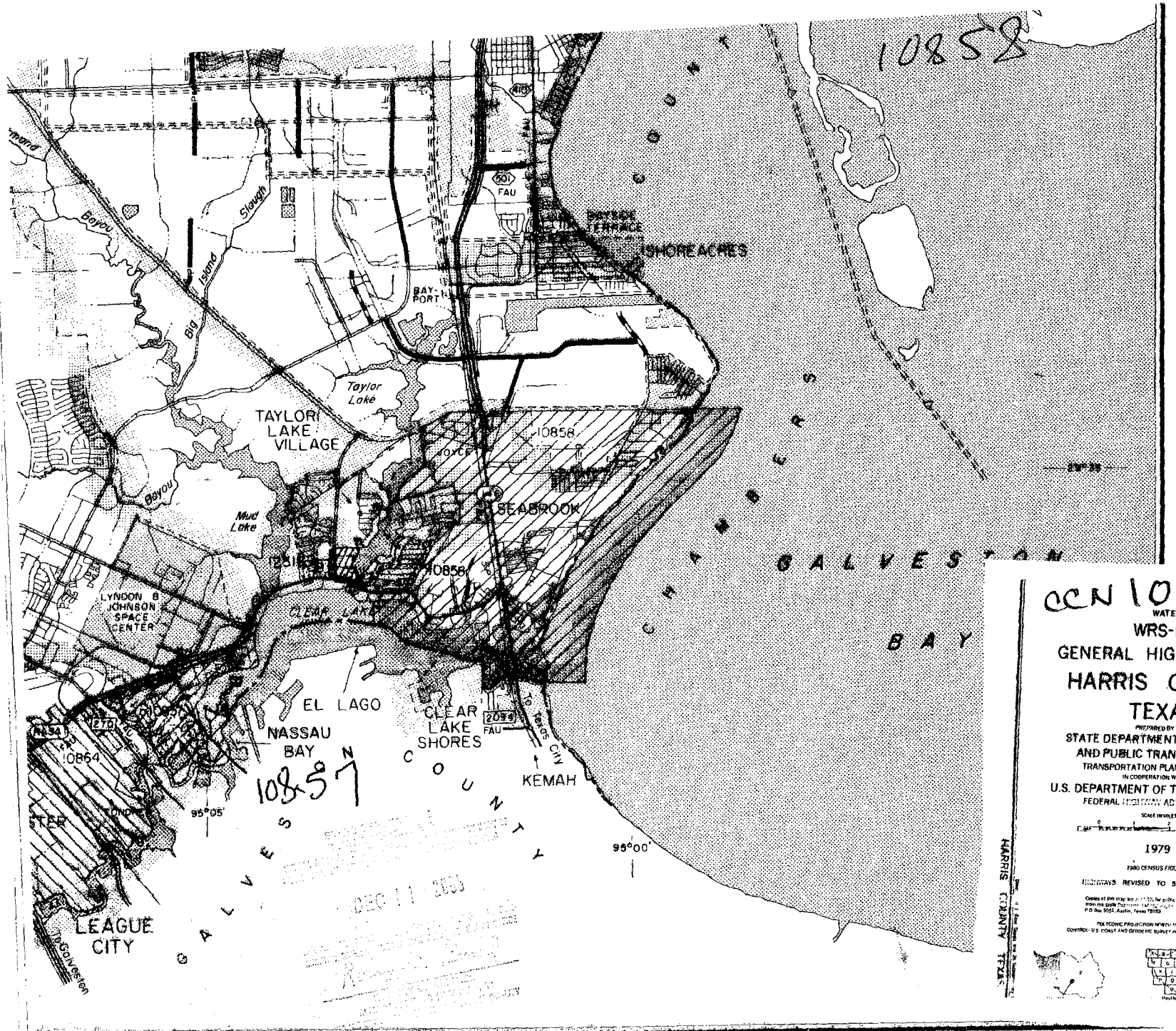
Facility Name: City of Seabrook

Water Conservation Plan Year: 2017

	Historic 5yr Average	Baseline	5-yr Goal for year 2022	10-yr Goal for year 2027
Total GPCD[1]	117	120	110	100
Residential GPCD[2]	86	90	80	70
Water Loss (GPCD)[3]	7.6	8	7	6
Water Loss (Percentage)[4]	6 %	7 %	6 %	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

APPENDIX D



CCN 10858

WATER

WRS-102

GENERAL HIGHWAY MAP

HARRIS COUNTY

TEXAS

PREPARED BY THE

STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION

TRANSPORTATION PLANNING DIVISION

IN COOPERATION WITH THE

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

SCALE IN MILES

1979

1980 CENSUS FIGURES

HIGHWAYS REVISED TO SEPTEMBER 1, 1985

Copies of this map are available for purchase at from the State Department of Highways and Public Transportation, P.O. Box 5051, Austin, Texas 78763

POLYCONIC PROJECTION NORTH AMERICAN DATUM

CONTROL: U.S. COAST AND GEODETIC SURVEY AND U.S. GEOLOGICAL SURVEY

HARRIS COUNTY TEXAS

APPENDIX E

CITY OF SEABROOK
ORDINANCE NO. 2017-11

AMENDING THE CITY OF SEABROOK CITY CODE OF ORDINANCES TO ADD NEW "APPENDIX B", "MASTER FEE SCHEDULE"

AN ORDINANCE AMENDING THE CODE OF THE CITY OF SEABROOK, BY ADDING A NEW "APPENDIX B", ENTITLED "MASTER FEE SCHEDULE" BY ADOPTING A COMPREHENSIVE FEE SCHEDULE TO ESTABLISH AND INCORPORATE SUCH CITY FEES AND CHARGES FOR MUNICIPAL SERVICES INTO A CONSOLIDATED DOCUMENT; MAKING FINDINGS OF FACT; REPEALING AND REPLACING ALL REFERENCES TO SUCH FEES AND CHARGES IN ALL ORDINANCES OR RESOLUTIONS IN CONFLICT WITH THIS ORDINANCE; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR NOTICE AND EFFECTIVE DATE.

WHEREAS, the City Council of the City of Seabrook ("City Council") seeks to provide for reasonable fees and charges for municipal services in order to recoup the cost of conducting municipal business on the public's behalf without unduly relying on taxes; and

WHEREAS, the City Council finds that the attached Master Fee Schedule is reasonable and prudent in light of the municipal effort and resources that must be expended to operate, maintain, and provide services of the City of Seabrook to citizens, property owners, and parties doing business within the City; and

WHEREAS, the City Council finds that it is in the public interest to adopt a Master Fee Schedule, which consolidates all City fees and charges into one document to provide a single and convenient location for a list of all fees charged by the City of Seabrook; and

WHEREAS, such list is intended to repeal and replace all existing fees in conflict with the fee schedule listed on Appendix B attached and incorporated as part of this Ordinance, save and except water and wastewater impact fees which are wholly contained in a separate Ordinance; and

WHEREAS, the fees and charges approved and instituted by this ordinance are consistent with, and in accordance with, the annual budget for the City; and

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

SECTION 1. FINDINGS

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 CITY CODE

The Seabrook City Code of Ordinances, is hereby amended by adding a new "Appendix B", entitled "Master Fee Schedule", attached and incorporated herein into the City of Seabrook Code of Ordinances.

SECTION 3. REPEAL AND REPLACEMENT OF EXISTING FEES

The City Council hereby repeals and replaces all fees levied by the City of Seabrook in conflict with the fee schedule attached and incorporated herein as Appendix B, subject to the provisions of this Ordinance. Said repeal and replacement shall be effective on March 30, 2017.

SECTION 4. INCORPORATION INTO THE CODE; PENALTY CLAUSE

This Ordinance is hereby incorporated into and made a part of the Seabrook City Code and violation of any provision hereof shall be subject to the penalty described in said Code, Section 1-15 "General Penalty; continuing violations".

SECTION 5. CONSOLIDATING ALL FEES AND CHARGES FOR MUNICIPAL SERVICES INTO ONE DOCUMENT

All City fees and charges for municipal services are hereby intended to be consolidated into one document, Appendix B, so approved and attached and made a part of the Seabrook City Code of Ordinances and incorporated herein.

SECTION 6. RESOLUTION OF CONFLICTING ORDINANCES AND PROVISIONS

In the event of a conflict or inconsistency between this ordinance and any other resolution, code or ordinance of the City, it is the intent that the fees and charges provided herein shall control, but not fees and charges made the basis of other specific provisions of the Code, which by way of illustration include but are not limited to the provisions of the Comprehensive Zoning Ordinance, Water and Wastewater Impact Fees Ordinance. Nothing adopted herein is intended to, in any way, nor shall any such provision be deemed to supersede or control over such provisions or any other fee or charge which may have been inadvertently omitted in this Ordinance.

SECTION 7. SAVINGS CLAUSE

All rights and remedies of the City of Seabrook are expressly reserved and saved as to any and all provisions of any ordinance affecting fees of the City and to any and all violations of the provisions of any prior ordinance pertaining thereto. which have accrued as of the effective date of this ordinance; and as to such accrued fees, collection activity, violations, and any pending litigation, both civil and criminal, whether pending in court or not, under such prior ordinances, same shall not be affected by this ordinance but may be prosecuted and pursued until final disposition.

SECTION 8. 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 of 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 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.

SECTION 9. 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 AND APPROVED with a quorum present, by an affirmative vote of a majority of Councilmembers present, in accordance with Seabrook City Charter Section 2.10 on first reading, this **21st day of March, 2017.**

PASSED AND ADOPTED with a quorum present, by an affirmative vote of a majority of Councilmembers present, in accordance with Seabrook City Charter Section 2.10, on second and **final reading, this 4th day of April, 2017.**

By: _____
Glenn Royal, Mayor

ATTEST:

By: _____
Robin Hicks, TRMC
City Secretary

THE CITY OF SEABROOK TEXAS

APPROVED AS TO FORM:

_____
Steven L. Weathered, City Attorney

Animal Control & Shelter (Res. No. 2013-14), Ord. No 90-09	
A. Impoundment Fees	
1 Dogs and cats	$25 per animal for the first day $15 for each additional day
B. Adoption	
1 Cats	Administrative Fee $20
2 Dogs	Administrative Fee $20
C. Quarantine	
1 Animals returned to owner after 10 day required quarantine	$300 for 10 days, $30/day
D. Registration/Licensing	
1 Annual Neutered/Spayed	Free
Annual Not Neutered/Spayed	$10
2 Vicious Animal Registration	$50 per animal
3 Replacement of lost tag	$1
E. Disposal Fee	
1 Cat	$10
2 Dog	$15
City Secretary	
A. City Permit Fees	
1 Alcoholic Beverage Permit (Ord. No. 2007-09)	1/2 of amount of the state fee for each permit and license authorizing sale of alcohol/ annually, as determined by TABC.
2 Solicitor/Itinerant Vendor Permits (Ord.No. 2013-25)	
Peddler or Solicitor	$50 per month
Canvasser	No fee
Charitalbe Organization	Fees may be waived
3 Wrecker Application/Permit (Ord.No. 96-02)	$125 per wrecker/annually
B. Public Information Records - Office of the Attorney General Note: Fee is set by Open Records Act and Public Information Act found at Texas Administrative Code: https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=1&pt=3&ch=70&rl=3	
1 Letter/legal size copy	$0.10 per page
2 Oversized copy	$0.50 per page
3 Specialty copies (i.e. 24" x 36" blueprints)	$7 per page
4 Audio Cassettes	$1 per tape
5 CD	$1 each
6 Electronic Media (flash drives)	Actual cost
7 Postage	Actual cost
8 Retrieval from storage	Actual cost
9 Labor, clerical (50 pages or more)	$15 per hour
10 Labor, programming	$25.50 per hour
11 Police Accident Reports	$6 each
12 Police Accident Online Reports	$6 each
13 Police Body camer footage	$10 for each recording Additional $1.00 per full minute of body worn camera video, if identical information has not already been obtained by a member of the public in response to a request for information
14 Police Offense reports	$0.10 per page
C. Oil & Gas Drilling Application (<Municode> Code of Ordinances, Sec. 60-25 & Sec. 60-36)	
1 Oil and Gas Drilling Permit/Application fee	$5000 (ordinance Sec 60-25)

Code Compliance (Res. No. 2007-13 Comprehensive Fee Schedule)	
A. Nuisance Abatement Removal	
1 Mowing (weeds, high grass, tree limbs)	Admin. Fee $125/lot, per occurrence + cost of services
2 Removal of Accumulated Waste	Admin. Fee $125/lot, per occurrence + cost of services
3 Junk Vehicle Removal	Admin. Fee $125/lot, per occurrence + cost of services
B. Substandard Structure	
1 Demolition	Admin. Fee $125/lot, per occurrence + cost of services
Filming (Ord. No. 2014-12)	
A. Administrative Fee	
1 Application - Commercial filming	$50
Finance	
A. Returned Check Fee	
1 Insufficient Funds (Res. No. 2014-01 Establishing Water Utility Fees)	$25 per occurrence
B. Hotel/Motel Occupancy Tax (Ord. No. 2012-21)	7% of room price, does not include food/drink
Parks and Recreation Res. No. 2017-04	
A. Facility Rental Fee	
Resident: Individuals must reside or own property within City Limits and Non- profit Local Groups must have membership made up of at least 51% city residents.	
Waiving of the rental fee may be approved if group provides significant service to the Seabrook community and roster is 51% city resident.	
1 **Alcohol Fee**	$30 per event
2 **Custodial Fee** (required for Full Day Rentals at Carothers)	$200
3 **Brummerhop Pavilion Rental Fee**	
Deposit: RESIDENT	$100
Deposit: NON RESIDENT	$150
Full Day Rental: RESIDENT	$60
Full Day Rental: NON RESIDENT	$80
4 **Brummerhop Cabana Rental Fee**	
Deposit: RESIDENT	$50
Deposit: NON RESIDENT	$60
Full Day Rental: RESIDENT	$50
Full Day Rental: NON RESIDENT	$65
5 **Carothers Coastal Gardens Rental Fee** (Res. No. 2014-04)	
Hourly Deposit (per hour)	$50/hr
Hourly Rental (2 hours minimum): RESIDENT	$110/hr
Hourly Rental (2 hour minimum): NON RESIDENT	$125/hr
Half Day Deposit	$200
Half Day Rental (5 hour minimum, 7 hour max.): RESIDENT	$400
Half Day Rental (5 hour minimum, 7 hour max.): NON RESIDENT	$475
Full Day Deposit	$500
Full Day Rental: RESIDENT	$1,450
Full Day Rental: NON RESIDENT	$1,750
Non-Profit Discount (proof of non-profit status required)	20%
Optional Lawn Prep	$300
Projection & PA System	$175

6	**Community House Rental Fee**	
	Deposit: Resident	$200
	Deposit: Non Resident	$250
	Mon - Thurs Rental (maximum 12 hours): RESIDENT	$300
	Mon - Thurs Rental (maximum 12 hours): NON RESIDENT	$400
	Mon - Thurs Rental (maximum 4 hours): RESIDENT/Non-profit/ Local Groups	$100
	Fri - Sun Rental (maximum 12 hours): RESIDENT	$450
	Fri - Sun Rental (maximum 12 hours): NON RESIDENT	$800
7	**Meador Pavilion Rental Fee**	
	Deposit: RESIDENT	$100
	Deposit: NON RESIDENT	$150
	Full Day Rental: RESIDENT	$100
	Full Day Rental: NON RESIDENT	$150
8	**Miramar Pavilion Rental Fee**	
	Deposit: RESIDENT	$100
	Deposit: NON RESIDENT	$150
	Full Day Rental: RESIDENT	$75
	Full Day Rental: NON RESIDENT	$100
9	**Swimming Pool Cabana Rental Fee**	
	Deposit: RESIDENT	$50
	Deposit: NON RESIDENT	$60
	Half Day Rental (maximum 4 hours): RESIDENT	$25
	Half Day Rental (maximum 4 hours): NON RESIDENT	$40
	Full Day Rental (maximum 9 hours): RESIDENT	$50
	Full Day Rental (maximum 9 hours): NON RESIDENT	$65
10	**Swimming Pool Party Room Rental Fee**	
	Deposit: RESIDENT	$60
	Deposit: NON RESIDENT	$70
	Full Day Rental (maximum 9 hours): RESIDENT	$100
	Full Day Rental Non Resident Rate (maximum 9 hours): NON RESIDENT	$150
B.	**Aquatic Fees**	
	* proof of residency (valid driver's license or City of Seabrook water bill)	* matching address
1	**Season Passes**	
	Individual *RESIDENT Ages 2 & older	$25/season
	Individual NON RESIDENT: Ages 2 & older (includes non resident senior citizens)	$150/season
	Individual *RESIDENT Senior Citizen (65 years of age & older)	$0/season
2	**Daily Pool Fees**	
	Daily Admission, 2 - 17 years of age:*RESIDENT	$2
	Daily Admission, 2 - 17 years of age: NON RESIDENT	$6
	Daily Admission, 18 - 64 years of age: * RESIDENT	$4
	Daily Admission, 18 - 64 years of age: NON RESIDENT	$8
	Daily Admission, 65 years of age & older: * RESIDENT	$0
	Daily Admission, 65 years of age & older: NON RESIDENT	$8
	Seabrook City Business Day Care	$1/ per child/ per day
	Non Seabrook City Business Day Care	$3/ per child/ per day
	Seabrook Hotel/Motel/ B&B Occupants	Same as Resident Rate with voucher

3 Swim Lessons (registration until classes are filled)	
Sessions *RESIDENT six lesson for 40 minute	$40
Sessions NON RESIDENT: six lesson for 40 minute	$60
4 Swim Team	
Team meets 4 days per week, scheduled meets, 3 hours/day	Free
C. Park Fee	
1 Pine Gully entrance fee, per vehicle	
Monday-Thurs, Under 65 years of age: RESIDENT	Free
Monday-Thurs, Under 65 years of age: NON RESIDENT	$10
Monday-Thurs, 65 years of age & older: RESIDENT	Free
Monday-Thurs, 65 years of age & older: NON RESIDENT	$5
Friday-Sunday, Under 65 years of age: RESIDENT	Free
Friday-Sunday, Under 65 years of age: NON RESIDENT	$20
Friday-Sunday, 65 years of age & older: RESIDENT	Free
Friday-Sunday, 65 years of age & older: NON RESIDENT	$10
HOLIDAYS: Easter, Cinco De Mayo, Memorial Day, July 4th, & Labor Day.	
HOLIDAY WEEKENDS: Holidays that fall on Fri-Sun	
Holidays & Holiday Weekends, Under 65 years of age: RESIDENT	Free
Holidays & Holiday Weekends, Under 65 years of age: NON RESIDENT	$30
Holidays & Holiday Weekends, 65 years of age & older: RESIDENT	Free
Holidays & Holiday Weekends, 65 years of age & older: NON RESIDENT	$10
Seabrook Hotel/Motel/ B&B Occupants	Same as Resident Rate with voucher

Planning & Zoning / Community Development / Building Department

A. Community Development Fee Schedule (Res. No. 2007-13)	
1 Preliminary Plat Review	$1,500
2 Final Plat	$1,500
3 Short-form Plat	$1,500
4 Amended Plat	$1,000
5 Conditional Use Permit	$1,000
6 Board of Adjustment Request	$500 per request
B. Zoning Change/Amendments	
Note: Includes Zoning Changes and Zoning Amendment applications where public hearing and legal notice is required.	
1 Zoning Change (Res. No. 2007-13)	$750
2 Planned Unit Development (PUD)	$1,500.00
C. Residential/Commercial Construction Fees (Res. No. 2007-13)	
General Construction fees (includes new construction, renovations, additions, accessory buildings, driveways, patios, decks, carport, swimming pools, and signs).	
1 Project Value $1,000 and less	$35
2 Project Value $1,001 to $50,000	$35 for the first $1,000, plus $5 for each additional $1000 or fraction thereof, to including $50,000.
3 Project Value $50,001 to $100,000	$260 for the first $50,000, plus $4 for each additional $1,000 or fraction thereof, to and including $50,000.
4 Project Value $100,001 to $500,000	$460 for the first $100,000, plus $3 for each additional $1,000 or fraction thereof, to and including $500,000.
5 Project Value $500,001 and up	$1,660 for the first $500,000, plus $2 for each additional $1,000 or fraction thereof.

D. Contractor Registration Fees (Res. No. 2003-26), (Res. No. 2007-13)		
1	Contractor's Registration (General Contractor's)	Annual Registration Fee $75.00 (365 Days)
	General Contractor	Renewal Fee $75.00
	Roofing Contractor	
	Pool Contractor	
	Sign Contractor	
	Concrete Contractors	
2	Licensed Trades in which Masters are required to register (In addition to contractor registration)	Annual Registration Fee $75.00 (365 Days)
	Electrical Master	Renewal Fee $75.00
	Electrical Sign Master	
	HVAC Master	
	Irrigation Master	
	Plumbing Master (No Fee)	
	Fire Sprinkler Master (No Fee)	
E. Other Administrative Fees		
1	Minimum Permit Fee	$35.00
2	Un-permitted Construction Penalty	Doubling of the permit fee (for any work requiring a permit)
3	Certificates of Occupancy/Certificates of Compliance/ Occupancy Permit (Res. No. 2007-13)	$50. Fee is waived if a building permit has been secured to prepare the building for occupancy.
F. Other Permit Fees		
1	Moving any building/structure (Res. No. 2007-13)	$100
2	Demolition any building/structure (Res. No. 2007-13)	$100
3	Floodplain Development	No charge. (Only for work in the regulatory Floodplain)
4	Fill Permit (Res. No. 2007-13)	$100
G. Fire Alarm		
1	Scheduled Base Fee: (Minimum Permit Fee)	$35.00
	Derives Include but are not limited to (Panels, Pull Stations, Switches, Detectors, Supervisory , Etc.)	
2	Devices 1-99	$5.00
3	Devices 100-299	$2.00
4	Devices 300-599	$1.00
5	Devices 600 and more	$0.50
H. Fire Sprinkler		
1	Scheduled Base Fee: (Minimum Permit Fee)	$35.00
2	Automatic Sprinkler System (Per Floor)	$50.00 ea.
3	Fire Pump	$100.00 ea.
4	Smoke Control System	$100.00 ea.
5	Devices (Sprinkler Heads) 1-99	$5.00
6	Devices (Sprinkler Heads) 100-299	$2.00
7	Devices (Sprinkler Heads) 300-599	$1.00
8	Devices (Sprinkler Heads) 600 and more	$0.50

I. Electrical Permits (Res. No. 2007-13)		
1	Scheduled Base Fee: (Minimum Permit Fee)	$35.00
2	Meter Loop (New service panel, meter can, sub panel, etc.)	$25.00 ea.
	Per each Circuit:	
3	1 Pole	$5.00 ea.
4	2 Pole	$10.00 ea.
5	3 Pole	$15.00 ea.
6	Temporary Service Pole (T-Pole):	$25.00 ea.
7	Temporary Cut In (TCI):	$25.00
8	Transformer (per KVA):	$2.50 ea.
J. Plumbing Fees (Res. No. 2007-13)		
1	Scheduled Base Fee: (Minimum Permit Fee)	$35.00
2	Each Plumbing Fixture, Floor Drain or Trap	$10.00 ea.
3	Sewer (New, Replaced, or Repaired)	$20.00 ea.
4	Each Gas Fixture Outlet	$10.00 ea.
5	Water Heater (New, Replaced, Repaired)	$25.00 ea.
6	Boilers (Per 500k Btu of Input)	$25.00 ea.
7	Special Interceptor (Grease, Sand, Acid, Etc.)	$25.00 ea.
K. Landscape Irrigation Permit		
1	Scheduled Base Fee: (Minimum Permit Fee)	$35.00
2	Backflow Assembly	$25.00 ea.
3	Sprinkler Head	$0.50 ea.
4	Zone Valve	$10.00 ea.
L. Mechanical /HVAC Permits (Res. No. 2007-13)		
1	Scheduled Base Fee: (Minimum Permit Fee)	$35.00
2	Each Cooling Unit < 5 Ton	$35.00 ea.
3	Cooling Units over 5 Ton (Per Ton)	$10.00 ea.
M. Pipeline Permit (Ord. No. 2014-13)		
1	Pipeline Permit	$1,000 per pipeline (ordinance #2014-13)
2	Annual Renewal (New pipeline)	$2500 per pipeline per year (ordinance #2014-13)
3	Permit Transfer	$500 (ordinance #2014-13)
N. Plan Review / Building Inspection Fees		
1	Plan review fee (When the valuation of proposed construction exceeds $1,000.00 and a plan is required, a plan-review fee shall be paid in addition to the Building permit fee.) 2007-13	Said plan-review fee shall be equal to one-half of the construction permit fee as set forth above. (C. Residential / Commercial Construction Fees)
2	Re-inspection Fee (Res. No. 2003-26)	$75.00 ea.
3	Commercial Inspection Fee (When the valuation of Commercial Construction, Renovation, or Additions (including all trade permits) is equal to or exceeds $25,000, an additional inspection fee is due.) 2007-13	Said Inspection fee shall be equal to the construction permit fee as set forth above. (C. Residential / Commercial Construction Fees)
4	Public Works Inspection (inspection on roads and utilities for new developments) - Res. No. 2007-13	2007-13: Actual charge billed to the city by third party inspector.

O. Impact Fees for New Construction (Reference tab: Impact Fees for calculations*) (Ord.No. 2015-22 & Code of Ordinance 85-157)

1 EDU: Equivelent Dwelling Unit

Water Impact Fee Amount per EDU			$2,163		
Wastewater Impact Fee Amount per EDU			$2,887		
Meter Type	Meter Size (inches)	Continuous Duty Maximum Rate (gpm)	Ratio to 5/8 inch Meter (Equiv. # of EDUs)	Fee for Water	Fee for Wastewater
Simple	5/8 x 3/4	10	1	$2,163	$2,887
Simple	3/4	15	1.5	$3,245	$4,331
Simple	1	25	2.5	$5,408	$7,218
Simple	1 ½	50	5	$10,817	$14,435
Simple	2	80	8	$17,308	$23,096
Compound	2	80	8	$17,308	$23,096
Turbine	2	100	10	$21,635	$28,870
Compound	3	160	16	$34,616	$46,192
Turbine	3	240	24	$51,924	$69,288
Compound	4	250	25	$54,087	$72,175
Turbine	4	420	42	$90,867	$121,254
Compound	6	500	50	$108,175	$144,350
Turbine	6	920	92	$199,042	$265,604
Compound	8	800	80	$173,080	$230,960
Turbine	8	1600	160	$346,160	$461,920
Compound	10	1150	115	$248,802	$332,005
Turbine	10	2500	250	$540,875	$721,750
Turbine	12	3300	330	$713,955	$952,710
Simple	5/8 x 3/4	10	1	$2,163	$2,887
Simple	3/4	15	1.5	$3,245	$4,331
Simple	1	25	2.5	$5,408	$7,218
Simple	1 ½	50	5	$10,817	$14,435
Simple	2	80	8	$17,308	$23,096
Compound	2	80	8	$17,308	$23,096
Turbine	2	100	10	$21,635	$28,870

* Fees may vary based on the actual date of developments recordation. Impact fees are collected at the time of development (Plat) recordation or issuance of construction permit.

Police	
A Golf Cart Regulation (Ord. No. 2010-31)	
1 Registration Fee	$50
2 Annual Renewal	$25
B Security (Ord. No. 2013-21)	
1 Off-Duty Security Officer (paid directly to officer)	$30/hr (min. 4 hours)
2 Off-Duty Security Officer (paid directly to officer) / Holidays	$50/hr (min. 4 hours)
3 Traffic Officer	$35/hr (min. 4 hours)
Public Works - Streets	
A Engineering Fees	
1 Street Sign (Developer pays all construction costs)	Subdivision Standard, Developer pays 1st year electrical fee.
B. Public Safety	
1 Deployment & Retrival in addition to equipment rate	$200
2 Electric Message Board	$200/day
3 A- Frame barricade	$2/day
4 8' or 12' barricade	$2/day
5 Cones	$2/day
6 Stop / Detour sign	$10/day
Sanitation/Garbage Collection (Res. No. 2015-02)	
A. Base Rate	
1 Residential	$20.95 per month
2 Commercial Hand Collect	$45.86 per month
3 Multi-Family Recycle	$2.97/family unit, per month
4 Rolls of bags (phasing out this program)	$10
B. Commercial Collection Frequency/Rate	
1 2 yd. container	1x/wk: $88.63
	2x/wk: $119.32
	3x/wk: $147.19
	4x/wk: $171.24
	5x/wk: $189.33
	6x/wk: $225.40
2 4 yd. container	1x/wk: $112.85
	2x/wk: $199.48
	3x/wk: $226.13
	4x/wk: $295.24
	5x/wk: $376.14
	6x/wk: $450.16
3 6 yd. container	1x/wk: $146.56
	2x/wk: $268.67
	3x/wk: $326.64
	4x/wk: $447.06
	5x/wk: $563.29
	6x/wk: $688.35
4 8 yd. container	1x/wk: $198.58
	2x/wk: $340.30
	3x/wk: $442.80
	4x/wk: $595.79
	5x/wk: $766.61
	6x/wk: $913.83

C. Compactor per Pick Up	
1 40 cubic yard	Haul Rate: $284.86 Disposal Rate: $427.26 Total: $712.12
2 28 cubic yard	Haul Rate: $284.86 Disposal Rate: $299.08 Total: $583.94
3 Front Load compacted per cubic yard	$16.71
4 Castor charge per container per month	$25 limited to 2 cubic yard containers
D. Extra Pick Up Fee	
1 2 yd.	$65
2 4 yd.	$88
3 6 yd.	$111
4 8 yd.	$136
E. Permanent Roll off Bin Base Rate	
1 Delivery Fee	$0
2 Rental per month	$157.24
3 rental per day	$5.94
F. Permanent Roll off Bin per Pick Up	
1 20 cubic yard	Haul Rate: $225.50 Disposal Rate: $204.15 Total: $429.64
2 30 cubic yard	Haul Rate: $225.50 Disposal Rate: $306.21 Total: $531.71
3 40 cubic yard	Haul Rate: $225.50 Disposal Rate: $408.28 Total: $633.78
G. Miscellaneous Rates	
1 Dead Head Fee	$221.80
2 Relocate Fee	$133.09
3 Truck Time	$133.08 per hour
Special Events (Ord. No. 2017-08)	
A. City Facility Special Event Fee	
1 Special Event application fee (City Council can waive fee for non-profit organizations,Res. No. 94-12)	$50
2 Deposit- Refundable	
Non parade/organized walk or run/sporting event Special Events	TBD by Special Event Committee, if applicable
Up to and including 200 parade/organized walk or run/sporting event participants (Res. No. 94-12)	$200
201-500 parade/organized walk or run/sporting event participants (Res. No. 94-12)	$300
500+ parade/organized walk or run/sporting event participants (Res. No. 94-12)	$500
3 Clean up determined by size and type of event	TBD by Special Event Committee, if applicable
B. Banner Installation and Removal	Passalong of invoice from City preferred contractor

Utility Fees

A. Security Deposit (Res. No. 2016-17)	
1 Homeowner, multi-family living unit equivalent	$100
2 Tenant or Lessee	$100
3 Builder's deposit, per unit, payable at time of water tap	$25
4 Hydrant deposit	$500
6 Commercial; 3 months average use, but not less than	$100
7 Irrigation Deposit	$100
B. Water Reconnect for non-payment (Res. No. 2014-01)	
1 Regular hours	$25
2 After hours	$75
C. Water Collection Fee (Late Charge) (Res. No. 2014-01)	10% of the amount past due and unpaid shall be added to regular charges
D. Meter Tampering Fees per offence (Res. No. 2014-01)	
1 Meter reset due to pulling after excessive past issues	$100
2 Meter lock broken	$100
3 Curb stop damaged or broken	$100
4 Dialog damaged or disconnected	$100
5 Meter lock removed	$100
6 Meter broken	$100
7 Meter stolen	$100
8 Unauthorized connection inserted	$100
9 Unauthorized water usage	$100
E. Theft of Water Service (Res. No. 2014-01)	
Note: Theft of water services shall refer to any customer who reconnects water services in any way, after the City has disconnected the water for nonpayment of delinquent bill or otherwise.	Delinquent amount + Water reconnect fee of $25 + Meter Reset fee + Meter Tampering fee
Fee breakdown:	
1 Delinquent Amount	Balance on account
2 Reconnect Fee	$25
3 Meter Reset Fee	$100
4 Meter Tampering Fee	$100
F. Water Tap (Ord. No. 81-23)	
1 5/8"	$450
2 3/4"	$475
3 1"	$500
4 1 1/2"	$750
5 2"	$1,200
G. Water Meter Re-Reads (Res. No. 2014-01)	
1 Note: If the City has made an error, then the fee will be refunded to the account.	$25 per request
H. Water Meter Test Fee (Res. No. 2014-01)	
1 1" or smaller meters, in-house	$50
2 1 1/2" or larger, outside contractor	Actual cost of outside contractor
I. Meter Audit (Res. No. 2014-01)	
Note meter read a maximum of two times	$50

J. Pretreatment Fees-Surcharge Industries	
1 Contract Laboratory Services	City's cost per sampling event
2 Administrative Fee	$25 per hour
K. Water Rates (Res. No. 2016-17)	
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.)**
5/8"	$13.40
3/4"	$13.40
1"	$33.51
1.5"	$67.01
2"	$107.22
3"	$201.03
4"	$335.05
6"	$670.11
8"	$1,072.17
10"	$1,541.25
12"	$2,881.46
All over 2,000 gallon. to 10,000 gallons	$3.94 per thousand gallons
All over 10,000 gallons to 15,000 gallons	$4.69 per thousand gallons
All over 15,000 gallons	$5.60 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 $13.40 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	$3.94 per thousand gallons
All over 10,000 gallons	$4.69 per thousand gallons
3 Sewer Rates - Residential	
First 2,000 gallons	$20.45
All over 2,000 gallons, per 1,000 gallons	$3.86
Maximum charge based on 16,000 gallons	$74.49
4 Sewer Rates - Commercial & Industrial	
First 2,000 gallons	$28.99
All over 2,000 gallons, per 1,000 gallons	$5.07
L. Wastewater Tap	
1 4 inch	Developer is responsible
2 6 inch	Developer is responsible
M. Waste Water Maintenance (Code 1976, 24-1.1, code 1996, 74-112)	
1 Reconnection to City main sewer line (Ord. No. 81-23)	$200
2 Grinder pump maintenance fee (Ord. No. 87-07/ Code Sec 95-133, Code 1976 12-74; Code 1196 74-133)	
Residential Customer	$6/month
Commercial Customer	$25/month

APPENDIX F

City of Seabrook
1700 First Street
Seabrook, Texas 77586
February 2009

Mr. Mark Evans
Chair, Region H Water Planning Group
North Harris County Regional Water Authority
3648 Cypress Creek Parkway, Suite 110
Houston, TX 77068

Re: Water Conservation / Drought Contingency Plan City of Seabrook

Dear Mr. Evans:

Enclosed please find one (1) copy of the recently amended Water Conservation / Drought Contingency Plan for the City of Seabrook. This copy of the plan is submitted to the Region H Water Planning Group in accordance with the rules of the Texas Water Development Board and Texas Commission on Environmental Quality. The City of Seabrook adopted the attached plan on _____, 2018.

Sincerely,

Brian Craig
Assistant Director Public Works/City Engineer
City of Seabrook

Cc: Kevin Padgett, Director of Public Works

APPENDIX G

Texas Water Development Board

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:

- [x] Retail Water Supplier
- [x] Wholesale Water Supplier
- [ ] Wastewater Treatment Utility

Address: 1700 First Street City: Seabrook Zip Code: 77586

Email: kpadgett@seabrooktx.gov Telephone Number: 2812915600

Regional Water Planning Group: H

Groundwater Conservation District:

Contact: First Name: Kevin Last Name: Padgett

Title: Asst Director Pub Works

Regional Water Planning Group: H

Groundwater Conservation District:

Reporting Period (Calendar year):

Period Begin (mm/yyyy): 01/2016 Period End (mm/yyyy): 12/2016

Check all that apply:

- [ ] Received financial assistance of $500,000 or more from TWDB
- [x] 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
✓	Residential - Single Family
✓	Residential - Multi-family
	Industrial
✓	Commercial
✓	Institutional
✓	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	3,371	261,356,000
Residential - Multi-family	2,788	104,262,000
Industrial	0	0
Commercial	192	62,462,000
Institutional	8	4,396,000
Agricultural	97	20,480,000
Total Retail Water Metered[1]	6,456	452,956,000

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

Texas Water Development Board

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.	**10,766,316**
2. Corrected Treated Purchased Water Volume: The amount of treated purchased wholesale water transfered 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.	**651,300,000**
3. Corrected Treated Wholesale Water Sales Volume: The amount of treated wholesale water transfered 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.	**126,893,684**
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	**535,172,632**
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.	**452,956,000**
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.	**29,212,658**
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	**482,168,658**
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.	**25,177,721**

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.	**27,826,253**
10. Total Water Loss: Apparent + Real = Total Water Loss	**53,003,974**

Programs and Activities

1. What year did your entity adopt or revise their most recent Water Conservation Plan? 2012

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 Wate 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	☐		
Cost Effective Analysis	☐		
Water Survey for Single Family and Multi-family Customers	☐		
Financial			
Wholesale Agency Assistance Programs	☐		
Water Conservation Pricing	☐		
System Operations			
Metering New Connections and Retrofitting Existing Connections	☐		
System Water Audit and Loss Control	☐		
Landscaping			
Landscape Irrigation Conservation and Incentives	☐		
Athletic Fields Conservation	☐		
Golf Course Conservation	☐		
Park Conservation	☐		

Residential Landscape Irrigation Evaluation	☐		
Education and Public Awareness			
School Education	☐		
Public Information	☐		
Small Utility Outreach and Education	☐		
Partnerships with Nonprofit Organizations	☐		
Rebate, Retrofit, and Incentive Programs			
Conservation Programs for ICI Accounts	☐		
Residential Clothes Washer Incentive Program	☐		
Water Wise Landscape Design and Conversion Programs	☐		
Showerhead, Aerator, and Toilet Flapper Retrofit	☐		
Residential Toilet Replacement Programs	☐		
ICI Incentive Programs	☐		
Conservation Technology & Resuse			
New Construction Graywater	☐		
Rainwater Harvesting and Condensate Reuse	☐		
Reuse for On-site Irrigation	☐		
Reuse for Plant Washdown	☐		
Reuse for Chlorination/Dechlorination	☐		
Reuse for Industry	☐		
Reuse for Agriculture	☐		
Regulatory and Enforcement			
Prohibition on Wasting Water	☐		
Retail			
Other	☐		
Totals			

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]
		0	

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

[2]Estimated 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.

✓	Uniform Rates
	Flat Rates
	Inclining/Inverted Block Rates
	Declining Block Rates
	Seasonal Rates
✓	Water Budget Based Rates
✓	Excess Use Rates
	Drought Demand Rates
	Tailored Rates
✓	Surcharge - usage demand
	Surcharge - seasonal
	Surcharge - drought
	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	✓	1	150
Messages Provided on Utility Bills			
Press Releases			
TV Public Service Announcements			
Radio Public Service Announcements			
Educational School Programs	✓	1	150
Displays, Exhibits, and Presentations			
Community Events			
Social Media campaign - Facebook			
Social Media campaign - Twitter			
Social Media campaign - Instagram			
Social Media campaign - YouTube			
Facility Tours			
Other			
Total		2	300

Leak Detection and Water Loss

1. During this reporting period, how many leaks were repaired in the system or at service connections? 26

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

	Water Loss Causes
✓	Distribution line leaks and breaks
	Unauthorized use and theft
	Master meter problems
	Customer meter problems
	Record and data problems
	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)
53	1000	1000

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	3835	50	9	103
Meters larger than 1 1/2 inches	86	8		0
Meters 1 1/2 inches or smaller	3749	7		103

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	○	◉	○	○
Industrial Customers	○	○	◉	○
Institutional Customers	○	○	○	◉
Commercial Customers	○	○	◉	○
Agricultural Customers	○	○	○	◉

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

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
535,172,632	12,100	121

[1]Retail 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
365,618,000	12,100	82

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

Total Water Loss in Gallons Apparent + Real = Total Water Loss	Retail Population	Water Loss GPCD[3]	Water Loss Percent
53,003,974	12,100	12	9.90%

[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 2017	140	121		82	14	12	10.00 %	9.90 %
Ten-year Target Date 2022	130	121		82	13	12	10.00 %	9.90 %