BROWNSVILLE
PUBLIC UTILITIES BOARD

# WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN

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Prepared
By:

Brownsville Public Utilities Board
Brownsville, Texas

April 2024

# Brownsville Public Utilities Board

A Component Unit of the City of Brownsville, Texas

# WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN

April 2024

Prepared by
Special Projects and W/WW Engineering-Planning Division

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## SECTION 1 INTRODUCTION

The Water Conservation and Drought Contingency Plan (WCDC Plan or Plan) presented herein was prepared and adopted by the Brownsville Public Utilities Board (BPUB) pursuant to the provisions of Texas Administrative Code Chapter 288, Water Conservation Plans, Guidelines, and Requirements. This Plan contains conservation goals, and the specific strategies for attaining these goals, that will improve water use efficiency and reduce long-term water demands. Water Conservation Elements are presented in Section 3 of this plan. The Drought Contingency Plan, which implements strategies to reduce water demands during water emergency conditions, is presented in Section 4. BPUB's utility profile data and the water and wastewater rates are contained in the appendices.

The 2019 WCDC Plan was adopted by the BPUB Board of Directors on April 8, 2019. The 2019 WCDC Plan was submitted to Texas Commission on Environmental Quality (TCEQ), Texas Water Development Board (TWDB), and the Rio Grande Regional Water Planning Group (Region M), as required by state law. The revised BPUB and Board approved 2024 WCDC Plan will also be submitted to the TWDB, TCEQ, and Rio Grande Regional Water Planning Group (Region M).

The City of Brownsville Drought Contingency Plan (Ordinance No. 2002-1134-A) was amended by Ordinance No. 2006-1134-B. This amended Drought Contingency Plan remains in effect.

## SECTION 2 UTILITY PROFILE, SYSTEM EVALUATION AND GOALS

### 2.1 WATER SUPPLY SYSTEM AND USE CHARACTERISTICS

The Brownsville Public Utilities Board (BPUB) was created by Article VI of the City of Brownsville Charter in 1960 to operate the water, wastewater, and electric utility systems for the City and surrounding area located in Cameron County, Texas. Currently, BPUB'S water and wastewater service area, shown in Figures 1 and 2, cover over 175 square miles.

In 2018, the BPUB water system consisted of 62,905 connections, comprised of residential, commercial, industrial, municipal, and wholesale customers. The current estimated population served by BPUB (including retail water and wholesale water services) is estimated to be 214,368.

BPUB's water record management system consists of monthly reports of water pumped from the Rio Grande, water deliveries to two water treatment plants, deliveries to City of Brownsville resacas, and water system sales. BPUB calculates the un-metered volume of water used for beneficial purposes such as line flushing, and reports it on a monthly basis. BPUB's Information Technology Department also produces a monthly report that classifies water customers and uses into residential, multi-family residential, commercial, municipal, and wholesale classes. These reports were used to produce the tables in the appendices. The monthly water data reports are used for water supply and conservation planning purposes, as well as rate studies.

In 2001, 2007, 2010, and 2016 BPUB conducted water distribution system audits. The main objectives of the water audits were to determine more accurately the current volume of water loss, to identify the various causes of loss and their quantities, and to identify actions and programs to reduce system losses. The audits resulted in several recommendations implemented by BPUB. In 2010, BPUB implemented an aggressive program to replace aging water meters and survey the distribution system for leaks. By 2013, the metered ratio improved to approximately 86%; a net non-revenue water loss improvement of approximately 13.5%. The annualized metered ratio increased to 87% in 2016. The water loss (representing apparent and real losses) for the BPUB's water distribution system was estimated at 12.87% in 2018. A new water audit of the distribution system kicked off in July 2022 and was completed in March 2023. The annualized metered ratio for the BPUB increased to 89%, which indicates an 11 to 11.5% Non-Revenue Water (NRW). Audit found that nearly 41% of all residential customers consumed less water in 2022 than in 2021. In 2022, more main breaks were repaired than in the previous two years combined. The audit presented various recommendations that BPUB will consider and implement.

The BPUB supplies water to the City of Brownsville, El Jardin Water Supply Corporation (EJWSC), Brownsville Navigation District (BND), and to the Military Highway Water Supply Corporation (MHWSC). A water distribution system model was initially

developed in 2002 using Pipe2000 and later updated in 2006, 2010 and 2015. All of the city's distribution system was included, as well as the EJWSC. The BND's distribution system was not included in the water model; rather, the overall District demand was modeled at the wholesale meter location. Projected water demands were updated within the water model for developing future conditions scenarios. The results from the model runs were analyzed to determine a series of recommended improvements necessary throughout the water distribution system through 2025. BPUB is currently developing the next five-year Master Plan Study.

### 2.1.1 RAW WATER SYSTEM AND USE

Brownsville is dependent on surface water from the Rio Grande River and brackish groundwater from the Rio Grande Alluvium Aquifer for its water supply. The City of Brownsville was adjudicated water rights under Certificate of Adjudication 23-865. Since the original adjudication in 1971, BPUB has increased the water supply for Brownsville by purchasing and acquiring water rights. The current Certificate of Adjudication 23-865 consists of 31,522.46 acre-feet of municipal-priority water rights for municipal use and 1,782.50 acre-feet of irrigation Class A water rights. To augment its share of Rio Grande water, BPUB entered into an agreement with a wholesale customer, EJWSC, requiring EJWSC to supply BPUB with raw water in exchange for treated water. BPUB also acquired the right under Permit 1838, which authorizes BPUB to pump up to 40,000 acre-feet of excess Rio Grande water annually when specific flow conditions exist in the river. In addition, the Southmost Regional Water Authority (SRWA) brackish groundwater treatment plant capacity is equivalent to approximately 11,200 acre-feet of treated water per year. BPUB's share of the SRWA treatment plant is equivalent to approximately 10,407 acre-feet of treated water per year.

Upon request by BPUB, the TCEQ Rio Grande Watermaster releases, via the International Boundary and Water Commission (IBWC), water from Falcon Reservoir. The reservoir is located approximately 200 river miles upstream from BPUB's river intake pumps. Normally, it requires about a seven-day period for the water to travel to BPUB's river intake pumps, which are located by Water Treatment Plant (WTP) No. 1. Raw water from the Rio Grande is pumped through a diversion structure and into two short-term off-channel raw water storage reservoirs located next to the Rio Grande. The two off-channel reservoirs have a capacity of 186.6 million gallons. The TCEQ's Rio Grande Watermaster, the state

agency responsible for coordinating and enforcing river diversions, has access to BPUB's river pumping facilities to ensure regulatory accuracy of pump flows.

Raw water is diverted from the two off-channel reservoirs, to WTP No. 1, which is located adjacent to the raw water reservoirs. Water Treatment Plant No. 2 is located in the central sector of the city, approximately 3 ½ miles from WTP No. 1. In 1994, to reduce raw water losses, BPUB constructed a 5-mile raw water transmission line (Raw Water Pipeline) from the off-channel raw water reservoirs to BPUB's WTP No. 2.

The $6.5 million Raw Water Pipeline was constructed to reduce the evaporation and seepage losses that occurred as raw water was conveyed from the raw water reservoirs through a resaca system to WTP No. 2. Water from the raw water reservoirs located near the WTP No. 1 is pumped through the Raw Water Pipeline directly to WTP No. 2. The existing 36-inch concrete-steel underground pipeline replaced the resaca system as the primary means to convey river water to WTP No. 2, significantly reducing the raw water losses to approximately 11%. BPUB continues to supply water to the resaca system to use for WTP No. 2, when needed, but primarily to protect its ecosystems by utilizing Permit 1838 water when it is available.

### 2.1.2 RESACA RESTORATION

BPUB is currently restoring resacas within the City of Brownsville to increase raw water storage and storm water capacity, improve water quality, restore habitat, stabilize the bank, and improve aesthetics. Restoration of resacas within the boundaries of the City of Brownsville began in 2013. The three main systems to be restored are the Town Resaca, Resaca De La Guerra, and Resaca Del Rancho Viejo. Dredging of the three Resaca systems is estimated to save 877-acre feet per year.

In collaboration with the United States Army Corps of Engineers (USACE), BPUB completed a resaca ecosystem feasibility study in 2018. The study findings recommended restoring 845 acres of aquatic and riparian habitat along Resaca De La Guerra and Resaca Del Rancho Viejo, and includes the removal (dredging) of sediment from the resacas. A 16-year contract schedule was developed for the Resaca restoration effort. Planning, engineering, and design of the first of 16 contracts began in 2021.

In 2020, TCEQ RESTORE Program awarded BPUB grant funds to conduct the Town Resaca Watershed Restoration Project (TRWRP). The TRWRP consists of three main

components. First, an estimated 100,000 cubic yards of accumulated sediment will be dredged from the Resaca creating increased water storage capacity, sustain native fish population, and allow for water recreation to take place. Second, the project will upgrade current infrastructure to assist with water retention and conveyance. Third, approximately 5,000 linear feet of bank improvements aimed at minimizing erosion, maximizing stormwater infiltration, and restoring habitat by incorporating natural, gentle slopes and native vegetation, will be constructed.

### 2.1.3 TREATED WATER SYSTEM AND USE

BPUB owns and operates two Surface Water Treatment plants rated at 20 million gallons per day (MGD) each. In addition, BPUB has a 92.9% share of water produced at the SRWA Brackish Groundwater Treatment Facility. The rated capacity of the SRWA facility is currently 10.0 MGD. With a 2015 microfiltration pretreatment and capacity expansion, BPUB's share of SRWA capacity increased from 7.0 MGD to 9.3 MGD. With SRWA, BPUB's combined treatment capacity is 49.3 MGD. Treated water is stored in the clear wells at the water treatment plants and elevated storage tanks (EST) located throughout the water distribution system.

The SRWA will be assessing the hydrological conditions and groundwater resources to obtain more detailed data pertaining to site specific conditions and the long-term hydraulic characteristics of the aquifer. The availability model will be updated to better understand the long-term water availability and begin preliminary design of a Phase 1 and Phase 2 brackish groundwater treatment plant expansion. Phase 1 consists of expanding the SRWA plant to a production capacity of 12 MGD and Phase 2 to a production capacity of 20 MGD. These expansions will reduce the need to divert additional flows from the Rio Grande River.

In 2009, BPUB constructed EST #7, a two million gallon elevated storage tank. In 2023, EST #8, a two million gallon tank, is tentatively scheduled to be constructed along with the demolition of EST #5 providing a combined elevated storage capacity of six million gallons. The transmission and distribution system consist of approximately 724 miles of pipelines and operates at a pressure between 64 and 68 psi. The entire distribution system is in the same pressure zone due to the flat topography. BPUB's treated water and wastewater customers are classified as residential, commercial, municipal, or wholesale customers. The TWDB divides the water users into slightly different categories: residential

single family, residential multi-family, commercial, industrial, institutional, and agricultural. The BPUB customer information system (CIS) categorizes residential customers as either single family or multi-family classes. Multi-family customers are included in the residential category. Consumption by municipal users (City of Brownsville and BPUB) is listed under TWDB's water use category for institutional use. For the five-year period 2019 through 2023, BPUB's water sales to each water use category is provided in Appendix A: Utility Profile, Section II, B.

BPUB supplies treated water to three wholesale customers: EJWSC, BND, and MHWSC. BPUB's wholesale customer, EJWSC, is the largest user. The next largest user is the BND followed by MHWSC (La Rusias). The highest volume commercial/industrial user is Rich Products Corporation. Annual water use for high volume customers is provided in Appendix A: Utility Profile, Section I, E.

The BPUB average and maximum daily water demands for the period 2019 through 2023 are included in Section II, Table F of Appendix A: Utility Profile. BPUB's average-day and maximum-day treated water demands in 2023 were 17.3 MGD and 18.0 MGD, respectively. This results in an annual peak-to-average daily use ratio of 1.04.

As shown in Section II. E, of Appendix A: Water Utility Profile, the BPUB treated water system averaged 10.04% in water losses from 2019 through 2023. The average loss for the period from 2014 to 2018 was 11.7%. Over the last twenty-year period, BPUB annual water loss averages ranged from a high of 27% in 2009 to a low of 9.8% in 2014. The decrease in water loss clearly demonstrates the effectiveness of BPUB's on-going water conservation efforts.

Per capita water usage based on treated water production provides a measure of water use per person for the BPUB system. The TWDB Water Conservation Task Force recommended that public water suppliers set a long-range gallon per capita per day (gpcd) goal of 140. BPUB's average per capita water use for the five-year period from 2019 through 2023 is 99 gpcd and is below the recommended 140 gpcd. The average treated water per capita usage decreased from 120 gpcd in 2014 to 102 gpcd in 2018 to now 103 in 2023.

This reduction in treated water per capita usage demonstrates the effectiveness of BPUB's efforts to reduce water losses in the water distribution system and promote water

conservation. Programs such as the raw water pipeline, systematic replacement of old and leaky treated water pipelines, public education efforts and projects improving water accountability have resulted in significant water savings. The BPUB water conservation programs have resulted in an estimated annual water savings of approximately 1,016 acre-feet of treated water usage.

### 2.1.4 WASTEWATER TREATMENT

The BPUB wastewater system consisting of collection and treatment facilities, includes gravity wastewater collection lines, 177 lift stations, and two wastewater treatment plants. Wastewater is transported by lift stations, associated force mains, and gravity lines to the Southside Wastewater Treatment Plant (WWTP) or the Robindale WWTP. The Southside WWTP has a 12.8 MGD treatment capacity, using the complete mix activated sludge process. BPUB and the Environmental Protection Agency (EPA) completed the renovation and expansion of the Robindale WWTP in June 2014. The Robindale WWTP has a 14.5 MGD treatment capacity, providing denitrification using the Modified Ludzack-Ettinger (MLE) process (anoxic and aerobic with an internal nitrate cycle). The BPUB used local and federal funding sources to complete the Robindale WWTP Rehabilitation and Expansion Project. The Design-Build contract cost for the project was $37.5 million (EPA supported this project with $15.8 million and the remaining cost of the project was funded with local funds). With completion of the Robindale WWTP project, the wastewater plants have a combined treatment capacity of 27.3 MGD. Current treated effluent flows from both wastewater treatment plants average 15.4 MGD.

### 2.1.5 POPULATION AND WATER USE PROJECTIONS

As previously described, BPUB is a water and wastewater system with a service area that covers in excess of 175 square miles and includes a current estimated population of 217,531. Based on projections, the population is expected to grow to 262,806 in 2030 and 305,089 in 2040. The population projections are listed in Appendix A: Utility Profile, Section I, A. The 2021 Regional Water Plan provided population projections for 2020 through 2060 for various water service areas, including Brownsville. The Regional Plan projected a declining growth rate for the Brownsville population. The estimated 10-year growth rates for 2020, 2030, 2040, 2050, and 2060 were 1.4%, 1.7%, 1.5%, 1.4%, and 1.2%, respectively.

Water demands are expected to increase significantly. Projected water demand from 2025 to 2034 are listed in Appendix A: Water Utility Profile, Section I, D. BPUB's water demands (i.e., within its water service area) are anticipated to increase to 13.1 million gallons in 2025 and 15.3 million gallons in 2034. The City of Brownsville city limits are projected to extend beyond the BPUB water service area.

## 2.2 SYSTEM EVALUATION

BPUB has evaluated various components of the water supply system which are identified in the following sections.

### 2.2.1 RAW WATER SUPPLY TO MEET PROJECTED WATER DEMANDS

The BPUB water demands are projected to increase over the next 50 years. Currently, BPUB's raw water supply is approximately 31,552 acre-feet with 1,782.50 acre-feet of which is irrigation water rights. In addition, BPUB owns 40,000 acre-feet of water rights for municipal and industrial use under Permit 1838, with restrictions. With water demands projected to increase to 70,068 acre-feet per year by 2070, continuing to secure additional raw water supplies, expanding the SRWA brackish groundwater desalination plant, developing water reuse as an alternative to potable supply needs, the development of a regional seawater desalination plant, and implementing measures to reduce water demands are imperative actions that BPUB must undertake.

### 2.2.2 UNMETERED WATER USE FOR BENEFICIAL PURPOSES

The volume of un-metered water used for beneficial purposes in the BPUB service area is and should be identified and estimated in order to calculate accurate water losses. Authorized un-metered uses include firefighting and training, flushing mains and sanitary sewers, processing water at water treatment plants, and street cleaning.

Based on recommendations in the 2001 water audit, BPUB began to record un-metered water usage for such activities as firefighting and line flushing. Currently, hydrant-flushing activities are recorded in the work order database and estimated gallons of water being flushed through hydrants are recorded in a monthly summary report. Additionally, BPUB implemented an online application to encourage timely reporting of leaking fire

hydrants to ensure that water losses are quickly addressed. Furthermore, BPUB has optimized the chlorine to ammonia ratio to optimize the disinfection of the distribution system, and thus reducing the need to flush the waterline as a result of the improved chlorine residuals throughout the system. BPUB designed improvements to the water treatment filters at the two surface water treatment plants. A filter rehabilitation project was completed in 2016. The project included the installation of new filter under drains and air scour capabilities. Air scour will reduce the volume of treated water required to backwash the dual media filters and improve cleaning consistency during the backwash process. The more efficient backwash systems have saved approximately 72 million gallons of treated water per year.

### 2.2.3. IDENTIFICATION, MEASUREMENT AND REDUCTION OF RAW WATER LOSSES

A major raw water conservation project previously implemented by the BPUB was the construction of the five-mile Raw Water Pipeline. Raw water losses associated with the conveyance of river water to WTP No. 2 were virtually eliminated when the Raw-Water Pipeline replaced the outdated resaca system as the conveyor of river water. It should be noted that the BPUB continues to supply water to the resacas to be used by WTP No. 2, as needed, and to protect the resacas ecosystems and enhance water quality by utilizing Permit 1838 when water is available. Furthermore, BPUB is undertaking city wide resaca restoration projects. These projects will increase the storage capacity and reduce evaporation losses that result from shallow pools.

In 2013, BPUB conducted a resaca infrastructure assessment to determine the current condition of resaca infrastructure and recommend improvements. The assessment recommends improvements that will help facilitate more efficient management of the raw water that is pumped into the resaca system.

### 2.2.4 IDENTIFICATION, MEASUREMENT AND REDUCTION OF TREATED WATER LOSSES

Major distribution system efficiency projects that have been implemented include the Cast-Iron Waterline Replacement Program, Distribution System Audits, Leak Detection Survey, Meter Replacement and Maintenance Program, Elevated Tank Maintenance and Repair, and Fire Hydrant Repair Program. The BPUB has implemented several of the

recommendations in the Water Distribution System Audits conducted in 2001, 2007, 2010 and 2016. The BPUB will implement recommendations from the recently completed 2023 water audit.

BPUB has made significant progress in reducing treated water losses. The average annual treated water loss between 1990 and 1994 was 23.8%, and it was reduced to 14.2% between 1995 and 1999**.** During the period between 2000 and 2004, the average treated water loss decreased to 14.5%. During the period from 2004 to 2008, the average treated water loss was 13.8%. In 2018, the average retail water loss had decreased to 12.8%. In 2021, the average retail water loss decreased to 9.3%. This reflects many system improvements since the early 1990s. BPUB continues to implement and fund projects and programs directed at reducing treated water losses to less than 13 percent, which is an acceptable industry standard. Water losses are documented and included in the BPUB's Monthly Operational and Financial Report, which is presented to the BPUB Board of Directors.

In 2021, the BPUB Board of Directors authorized to proceed with the implementation of the Advanced Metering Infrastructure (AMI) project for both electric and water meters. The project will provide real-time and on-demand data on water consumption for accurate data measurement, identifying issues before they become costly problems, and reducing diagnostic and response times. AMI helps spot possible water leaks faster by showing unexpected spikes in consumption at certain hours of the day among users.

### 2.2.5 WASTEWATER REUSE PROJECTS

BPUB has implemented wastewater reuse projects at both the Robindale and Southside WWTP. The projects include wastewater reuse projects for wash-down stations and chlorine system. The BPUB has also performed numerous studies related to the reuse of treated wastewater effluent for irrigation, cooling water, and other purposes. The BPUB and The University of Texas at Brownsville/Texas Southmost College completed a preliminary engineering report in 1999. Four alternatives were evaluated for this project, and the outcome was a recommendation that the effluent could be utilized for irrigation of restricted and unrestricted areas, and commercial and industrial processes.

A direct potable reuse strategy for the Southside WWTP is to pump treated effluent to the WTP No. 2. Based on the TCEQ discharge permit, the maximum annual average effluent flow for Southside WWTP is 12.8 MGD. The average annual effluent flow at Southside

WWTP has been increasing and, during 2021, was just over 7.0 MGD. Assuming approximately half of that flow is available on a consistent basis, 3.5 MGD, or 3,920 acre-ft/yr., would be the maximum volume to be produced for potable reuse. For this two phased water management strategy (WMS), Brownsville's Southside WWTP will produce 3.0 MGD or 3,360 acre-ft/yr. of potable water in the first phase and will be expanded to produce a total of 4.5 MGD or 5,040 acre-ft/yr. in the second phase.

A direct non-potable reuse strategy involves BPUB sending treated wastewater effluent to industrial users, in lieu of providing potable water to be used for cooling water demand or landscape irrigation. The BPUB Robindale WWTP is located near the Port of Brownville and several industrial parks and has sufficient capacity to provide non-potable reuse water. In a drought year, 6 MGD of reclaimed wastewater could be sent to industrial users, The project would be sized for a peak flow of 12 MGD, or 13,442 acre-ft/yr. The direct non-potable reuse strategy is planned for implementation in the 2030 decade.

### 2.2.6 RETROFIT AND WATER CONSERVATION LANDSCAPING PROGRAMS

Currently the BPUB conducts Water Conservation Workshops to groups upon request. In addition, the BPUB distributes leak detection dye tablets to customers at no cost. BPUB has also distributed toilet bags to customers. BPUB plans to continue its community outreach by conducting water conservation workshops and distributing conservation tools, such as leak detection dye tablets and water conservation eco-kits.

The City of Brownsville adopted a landscaping ordinance in 1999. The landscaping ordinance included two requirements that promote water conservation. The previous landscaping requirements did not limit the amount of area containing grass; the new ordinance establishes limitations. The ordinance adopted in 1999 states the following: "No more than 50 percent of the area of the visible "landscape improvements" shall include lawn(s) containing grass." The ordinance also promotes water conservation by encouraging the use of native plants for parking lot trees, buffer trees, shrubs, and ground cover. In 2018 the City of Brownsville adopted a new landscaping ordinance identifying approved and exempt irrigation system installers. All licensed and property owner's claiming homestead status for exemption purposes shall apply for all applicable City of Brownsville Permits and shall design the landscape irrigation system as per the City of Brownsville Landscape Ordinance 2018-1100.59.

### 2.2.7 WHOLESALE CUSTOMER IMPLEMENTION OF THE WATER CONSERVATION PLAN

Section 288.5 of the TCEQ rules and regulations requires that wholesale water supply contracts entered into or renewed by the BPUB after official adoption of this Water Conservation Plan contain provisions that the purchaser adopt the terms and provisions of this Plan. The BPUB contracted with two wholesale customers, EJWSC and BND, before Section 288.5 went into effect. Upon renewal or major amendment to these contracts, the BPUB will incorporate Section 288.5 requirements. The contract with MHWSC adopted the terms and provisions of this Water Conservation Plan.

## 2.3 WATER CONSERVATION GOALS

Based on an examination of BPUB's water use profile, supply, and system evaluation, BPUB adopts the following water conservation goals:

### 2.3.1 GOAL ONE: MAINTAIN A LOW RESIDENTIAL PER CAPITA USAGE

During 2014 to 2018, the residential consumption in Brownsville ranged from 56 to 62 gallons per capita per day (gpcd), with an average of 58 gpcd. BPUB can further reduce its residential water gpcd by adopting and aggressively pursuing the water conservation measures set forth in the Water Conservation Plan. BPUB projects that residential water consumption can remain at or below 60 gpcd within 5 years. BPUB can achieve this goal by aggressively continuing and/or concentrating additional efforts on the following water conservation strategies:

a. Public awareness and education on the need for water conservation
b. Conservation-oriented water rate structure
c. Universal metering, meter repair and replacement
d. Control of unauthorized unmetered water use
e. Leak detection and repair
f. Water conservation landscaping
g. Customer service pressure control
h. Water recycling and reuse programs
i. Water efficient plumbing fixtures and retrofit programs
j. Water saving plumbing code

k. Conservation programs for Industrial, Commercial, and Institutional (ICI) Customers
l. Requirement for wholesale water customers to adopt commensurate water conservation measures

The ten-year goal is to maintain the residential water demand to be at or below 60 gpcd by implementing additional water conservation measures. Upon adoption, the BPUB will form a working group to implement the Water Conservation Plan.

The water conservation working group will consist of representatives from various departments of BPUB, such as water treatment, raw water supply, water operations, wastewater treatment, customer service, finance, and communications and public relations. The working group will be responsible for developing, planning, and implementing the different components of the plan. In addition, the working group will gather relevant data and information to produce reports to track the progress and determine savings of the water conservation programs and projects.

### 2.3.2 GOAL TWO: MAINTAIN A LOW TOTAL GALLONS PER CAPITA USAGE

During 2014 to 2018, the total water consumption in the Brownsville service area ranged from 96 to 104 gpcd, with an average of 103 gpcd. The 5-year goal is to maintain or reduce total water consumption at or below 105 gpcd within 5 years. The 10-year goal is to reduce total consumption to 98 gpcd. The goals, which involve all BPUB water customers, including residential, industrial, commercial, and institutional customers, can be achieved by continuing to educate and promote the conservation strategies and program elements presented in Section 3.

### 2.3.3 GOAL THREE: MAINTAINING LOW TREATED WATER LOSSES

BPUB reduced its projected water demands by approximately 16% by reducing the retail water losses from 27% in 2009 to approximately 13% in 2018. With current water consumption, this represents a savings of almost 3,760 acre-feet annually in retail water. BPUB's 5-year goal is to maintain treated water losses (i.e., subtracting authorized consumption from corrected system input volume) to less than 14%. The 10-year goal is to sustain water losses to less than 14%.

BPUB will continue to update the water distribution system audit at least every five years. BPUB continues to implement projects and programs targeted to reduce water losses based on the recommendations from the results of the audits. BPUB will maintain and/or improve its record-keeping process of authorized un-metered water uses to accurately calculate water losses. Operations reports are updated on a monthly basis to monitor water losses and track progress to successfully maintaining water losses to less than 14 percent.

## SECTION 3 WATER CONSERVATION PLAN ELEMENTS

The BPUB adopts the water conservation strategies presented below, pursuant to 30 TAC, Chapter 288, to achieve the goals set forth in Section 2.3 of this report. The following planning elements are consistent with 30 TAC Chapter 288 guidelines:

### 3.1 EDUCATION AND PUBLIC INFORMATION

BPUB has been proactive with regard to water conservation awareness and education. Brownsville residents and businesses have received extensive information from a variety of sources on the water situation in the entire Rio Grande Valley. Through advertising, marketing, media contacts, public relations, speaking engagements, presentations, and tours, BPUB has reached individuals from all age groups and social classes with respect to the importance of conserving one of our most precious resources – water.

Advertising efforts include use of BPUB's two outdoor digital billboards along with public workshops; newspaper advertising; videos, social media outreach, distribution of water conservation materials at public functions; BPUB's administration building and via mail. Water conservation information is also available on BPUB's website. Presentations, conservation material, and advertising are available in English and Spanish.

As part of this Water Conservation Plan, BPUB commits to continue to inform its customers of various recommended methods for implementing a reduction in water consumption. Generally, residential customers consume the majority of water within BPUB's service area; therefore, the target audience for education and information has primarily been, and will continue to be, this major user group.

BPUB distributes extensive amounts of material to customers when they visit the BPUB Administration Building. In addition, tours are provided for groups that are interested in

seeing how water is treated, and presentations are made to school children on the importance of conserving water. The utility's efforts are supplemented with a water conservation bill stuffer and an Annual Drinking Water Quality Report, both of which are mailed to each customer. These documents provide customers with information that pertains to water conservation, as well as the current water restrictions and any other water-related issues.

Since the implementation of the BPUB Water Conservation Education Program, staff has made presentations to students and adults. Students also participate in plant tours on a yearly basis. Approximately 63,000 BPUB customers have received, and will continue to receive, an Annual Drinking Water Quality Report by July of every year. The report contains information about what is in BPUB's drinking water, as well as water conservation restrictions and/or water-saving tips.

In 2015, an exhibit at the Children's Museum of Brownsville opened because of a close collaboration with the museum and BPUB. The exhibit looks at the Resaca Restoration Project and the importance of keeping the city's drinking water supply clean. It educates the community about not littering in the city's waters.

The BPUB will continue to implement a Water Conservation and Drought Awareness Campaign consisting of the following activities:

a. Annual Water Conservation Public Information Campaign:

The Annual Water Conservation Public Information Campaign includes the following:

(1) Brochures/Bill Inserts

BPUB includes water conservation information in its Annual Drinking Water Quality Report that is distributed to all customers by July 1 every year. Brochures/bill inserts discussing some facet of water conservation are mailed to all customers. These brochures are included as part of the summer-long water conservation campaign and as part of the Annual Drinking Water Quality Report. These brochures are made available in English and Spanish. New customers are provided with these brochures upon initiation of water service and/or upon request. Water conservation brochures are available for customers when they visit BPUB's Customer Service Department in the

Administration Building. These brochures are also made available on the BPUB website, as well as other conservation tips and materials.

(2) Bill Messages

Water conservation and water rate information are included in the message portion of the BPUB utility bill. Information on the message portion of the bill is limited because BPUB is required to use the space to promote hurricane preparedness during the summer months.

(3) BPUB Website/Social Media:

Water conservation and water-saving tips and mandatory water conservation restrictions are found on the BPUB website: http://www.brownsville-pub.com and social media platforms listed on the website. Information on the BPUB website includes: water conservation tips, information on BPUB's high-efficiency toilet rebate program, information on how much water is used in various parts of the home, an application that calculates how much water can be wasted through a leak, and a link to the Texas Drought Report to keep customers abreast on the latest information pertaining to drought. There is also a section on the BPUB website dedicated to drought and BPUB's Drought Contingency Plan that gets regularly updated as needed.

(4) Media:

Press releases and/or advertisements targeting the drought plan and methods for conserving water (dishwasher, shower, toilet, and laundry) are submitted to the local media for possible publication.

(5) School and Community Education:

The BPUB schedules presentations with various civic organizations to spread the word about water and how to conserve it.

The BPUB continues to focus on the goal of the Water Conservation Public Information Program and to provide customers with water conservation information four times each year, as recommended in the TWDB's Water Conservation Best Management Practices Guide. Alternative informational activities and results are documented and reported in BPUB's Monthly Operational and Financial Report presented to the BPUB Board of Directors.

b. Drought Awareness Campaign:

In addition to the Water Conservation Public Information Campaign, during drought conditions, a drought awareness campaign will be implemented utilizing all available BPUB resources (website, social media) along with advertising across all media (TV, radio, newspaper, Internet). The allocated expenditures for the campaign would be dependent upon budgetary constraints, and the specific campaign theme would vary. Press release(s) and/or editorial(s) for local newspapers, which detail the kickoff of the annual drought awareness campaign, will be included at the time of the campaign rollout. The campaign may also include radio and television advertisements.

## 3.2 CONSERVATION-ORIENTED WATER RATE STRUCTURE

BPUB's water and wastewater rate structures adhere to the American Water Works Association's (AWWA) policy that rates be developed with cost-of-service principles. The water rates consist of an inverted or increasing block structure to promote water conservation **(**Appendix B: Water and Wastewater Rates).

AWWA recommends that when a disparity exists between the existing rates and cost of service rates, a gradual movement towards cost-of-service rates is acceptable to minimize the impact on customers. Since the early 1990s, BPUB has been implementing water and wastewater rate adjustments that move in the direction of establishing full cost of service-based rates.

BPUB implemented water rate adjustments that increase the volume charges for all water consumption. The volume charges are designed to recover those costs related to supplying customers with water to meet their average and peak rates of use.

The water rate form applicable for residential service was implemented in 2005 and was designed to provide a conservation incentive for single-family residential customers to use water more efficiently. The rate form is characterized as an increasing or inverted block structure with four (4) rate or consumption blocks. The second, third, and fourth (or tail) block are priced greater than the first block and each preceding block, and is targeted at reducing outdoor discretionary water consumption used primarily for lawn irrigation purposes. The residential conservation-oriented rates apply to all water use above 3,000

gallons per month. The minimum bill includes only the customer charge and does not include a water allotment.

BPUB has also implemented wastewater rate adjustments that increase the volume charges for all billable wastewater volume used. The volume charges are designed to recover those costs related to supplying the quantity and strength of wastewater contributed by customers.

The wastewater rate schedule applicable for residential service was implemented in 2007 and was designed to promote water conservation. The rate form is characterized as an increasing or inverted block structure with two (2) rate or consumption blocks. The second block is priced at approximately 10% greater than the first block. The residential conservation-oriented rates apply to all billable wastewater volume above 7,000 gallons per month. The minimum bill includes only the customer charge. The current water and wastewater rates went into effect June 1, (Appendix C: Water and Wastewater Rates).

Every month, BPUB customers receive information regarding their consumption history. The historical 12-month water use information is provided in the utility bill. Customers can also compare their monthly water use to the neighborhood average and the average for BPUB residential water use. The bill format contains a section where BPUB can provide messages to BPUB customers. In addition, BPUB also provides information to customers by utilizing bill inserts or stuffers. Rate structure information can be provided through both of these methods. Appendix D is an example of a BPUB water and wastewater bill.

Wholesale Customer Water Rates: The current wholesale water rates went into effect June 1, 2022 for BND and MHWSC, and on September 1, 2022 for EJWSC (Appendix C: Water and Wastewater Rates). The volume rates for the wholesale customers are based on adjustments to meet their allocated cost of service. The wholesale rates for the BND include a customer service charge and a flat volume rate as well as credit, if certain conditions exist, in consideration of the BND's transfer of raw water rights to the BPUB. The wholesale rate for EJWSC excludes monthly service charges and includes a flat volume rate. The wholesale rates for MHWSC include a customer service charge and a flat volume rate.

## 3.3 UNIVERSAL METERING, METER REPAIR AND REPLACEMENT

BPUB has a policy that water users, including BPUB uses and water supply sources, be metered. This promotes water conservation in two ways. First, metering results in lower water use, since the customer becomes aware of the amount of water used through the effect it has on the water bill. Second, metering is an aid to detecting leaks on both sides of the meter.

Maintenance programs for water meters are essential to assuring that an accurate measure of system integrity is being obtained. A common approach is to change out a given percentage of total meters in the system every year, running the meters that are pulled through a preventative maintenance and testing program. Another benefit of this strategy to the water provider is to reduce or eliminate under-registration by meters, which may result in significant loss of revenue.

The production (master) meters at the two BPUB WTP's were upgraded from Venturi meters to magnetic ("mag") meters in 2010 and 2011 in an effort to improve the measurement of treated water flow into the water distribution system. In addition, mag meters were installed on three high service pump stations in 2015, 2017 and 2018.

Currently, BPUB has a Meter Replacement Program based on age for meters two inches and lower. Once the meter has been in the ground for 10 years from the date of installation the meter is replaced. Meters are also tested and replaced based on low or no consumption, leaks, high consumption (wear and tear on the meter). In addition, meters two inches and larger are tested and replaced based on information obtained by the BPUB Billing Department, wear and tear on the meter, and age. Meters that do not meet BPUB policy accuracy limits of 95% to 101.5% are also replaced.

In 2002, BPUB completed an upgrade in the Customer Information System (CIS). The new CIS provides meter age and consumption information directly to the Water and Wastewater Operations Department. The upgrade allows for reports to be created based on meters that are due for replacement.

In 2008, BPUB initiated a Revenue Recovery Program to reduce metering tampering and electricity, water and wastewater utility services theft. The program included new and increased fees for metering tampering and straight connections and billing for services not paid.

BPUB plans to implement the following in reference to water metering:

a. Continue to ensure plant production meters are measuring flows accurately;

b. Continue the Meter Repair and Testing Program and Procedures;

c. Continue Random Testing Program and Procedures to test new 5/8 x ¾- inch meters for accuracy.

The BPUB Water and Wastewater Department documents and reports meter testing, repairs, and replacements on a monthly basis. The information is included in the BPUB's Monthly Operational and Financial Report presented to the BPUB Board of Directors.

## 3.4 WATER LOSS CONTROL PROGRAM

In 1994 in an effort to reduce raw water losses, BPUB constructed a 5-mile raw water transmission line from the off-channel raw water reservoirs to BPUB's WTP No. 2 located in the central sector of the city (Figure 3: BPUB Water System). The $6.5 million raw water transmission line was constructed to reduce the amount of raw water losses due to evaporation and seepage. Water from the raw water reservoirs located near the Rio Grande and WTP No. 1 flows through the raw water transmission line directly to WTP No. 2. The line replaced the use of Resaca de la Guerra as a canal to transport river water to WTP No. 2. BPUB has continued to divert river water to the Resaca system to maintain it as reservoirs and to enhance water quality and environmental conditions. Upon installation of a water meter to measure the raw water going into the resaca system, BPUB will be able to measure accurately the benefits of the line.

BPUB will implement the following to control and measure unaccounted water use:

a. BPUB will continue reporting water use and losses on a monthly basis in the operational and financial report.

b. BPUB will continue gathering and reporting non-revenue water use such as line flushing, use by sewer cleaning vehicles, and firefighting and training.

c. The Texas Legislature amended Section 16.0121 of the Texas Water Code to require retail public utilities to conduct a water audit at least every five years. BPUB conducted a water audit in December 2010 and 2016 and has implemented several of the recommendations. A new water audit began in July 2022 and was completed in March 2023. These projects and programs are included in different sections of the Water Conservation Plan. BPUB completes the Water Audit Reporting Form and submits the report annually to the TWDB.

## 3.5 LEAK DETECTION AND REPAIR PROGRAM

The best way to minimize leaks is to use high quality materials to construct water system improvements, assure that they are properly installed, and to maintain all components in good operating condition. Therefore, good water system construction standards and a program of water main replacement in areas where leaks are recurrent will result in a reduced number of leaks and a reduction in water losses. In 2010, BPUB performed a leak detection study on 220 miles of distribution main ranging from 4-inch thru 16-inch diameter, with the majority comprised of asbestos-cement pipe. This project resulted in locating 39 water leaks in the system with an estimated water loss of 79,250 gallons per day. In 2013, BPUB performed a leak detection study on 412 miles of PVC water mains ranging in size 4-inch to 16-inch diameter. This project resulted in locating 29 water leaks in the system with an estimated water loss of 103,680 gallons per day. In 2013, BPUB replaced 80 fire hydrants in the system. The work was completed within six months. The second phase of this project started in 2014 and consisted of replacing 60 fire hydrants. Over a two-year period, a total of 140 fire hydrants were replaced. In 2018, BPUB replaced approximately 4,501 feet of distribution lines. In 2019, BPUB performed a leak detection study on 204 miles of distribution main ranging from 4-inch thru 16-inch diameter, with the majority comprised of asbestos-cement pipe. This project resulted in locating 31 water leaks in the system with an estimated water loss of 296,375 gallons per day.

The BPUB water distribution system includes three EST's. BPUB has periodically repaired and conducted maintenance on the elevated tanks. During 2000, 2001 and 2018, BPUB removed three elevated tanks. The two-million-gallon elevated tank (EST #6) located on Alton Gloor Boulevard was rehabilitated in 2014. A two-million-gallon elevated storage tank (EST #7) was constructed in north Brownsville on Martinal Road in 2008. The one-million-gallon elevated tank (EST #4) located in the southeast section of the city was removed from the system and the one-million-gallon elevated tank located

near the University of Texas at Brownsville (EST #5) is planned for demolition in the near future. A new two-million-gallon elevated tank (EST #8) was constructed in the southeast section of the city on E. 30th Street in 2022. After the demolition of EST #5, the combined storage capacity provided by the three elevated tanks will be six million gallons.

BPUB will continue to undertake the following actions to prevent leaks and to locate those that do occur so they can be repaired quickly:

a. Continue to periodically repair and conduct maintenance on the elevated water tanks. BPUB will continue to inspect the elevated tanks on an annual basis.

b. Continue the Leak Detection Program of the distribution system and inspect the transmission and delivery system on a yearly basis.

c. Continue Valve Maintenance/Location Program to facilitate system shut offs. The program includes annual inspection and operation of valves that are 12-inches or larger.

d. Continue to use records of leak frequency as a guide to determine the cost effectiveness of line replacement. The records are provided to the BPUB Water and Wastewater Engineering Department for use in determining the waterline improvements and replacement projects. The information has been used to develop the Water Master Plan and will be incorporated into the BPUB's Geographical Information System (GIS) system.

As recommended by previous water audits and the TWDB Water Conservation Task Force, BPUB continues to implement the leak detection program in the distribution system. This is a continuous process, and the BPUB takes very seriously the potential water savings associated with such a program.

BPUB is planning to proceed with the implementation of the Advanced Metering Infrastructure (AMI) project for electric and water meters. The project, which will provide real-time and on-demand data on water consumption, will help to detect possible water leaks.

Through these activities, BPUB's water system has and will maintain a high standard of operational integrity. BPUB's 5-year goal is to maintain distribution system losses at an annual average of less than 14%. The 10-year goal is to continue maintaining the average annual water losses to less than 14%. BPUB will continue to implement its leak prevention, detection, and repair program incorporating the above elements. The BPUB Water and Wastewater Operations Department documents and reports leak detection activity on a monthly basis.

## 3.6 WATER CONSERVATION LANDSCAPING

BPUB will undertake the following actions regarding water conservation landscaping:

a. BPUB will make available at its offices and/or on the BPUB website educational resources related to outdoor water conservation.

b. BPUB will establish a Water Conservation Landscaping Education and Outreach Program to promote reducing outdoor water use. The program will be limited to education and outreach.

## 3.7 CUSTOMER SERVICE PRESSURE CONTROL

By regulating water pressure to its customers, it is possible for the BPUB to reduce water consumption without compromising the quality of service. To ensure quality of service and water conservation, BPUB maintains an average pressure of 64 psi to 68 psi in the distribution system.

## 3.8 WATER RECYCLING AND REUSE PROGRAMS

BPUB has implemented wastewater reuse projects at both the Robindale and Southside WWTP. The plants' non-potable water systems provide wastewater effluent for wash-down stations and the chlorine system.

BPUB is actively seeking alternative sources of adequate, reliable, and affordable municipal and industrial water and has implemented an aggressive water conservation program. The BPUB requested Bureau of Reclamation's assistance under Title XVI of P.L. 102-575 – Reclamation Wastewater and Groundwater Study and Facilities Act, as

amended, to conduct an appraisal investigation of the potential for augmenting its potable water supply.

The Bureau of Reclamation completed the appraisal study of Brownsville's water reclamation and reuse options in 2002. The study was done at the Robindale WWTP and identified three potential solutions to meet the City's need: 1) brackish groundwater pumping and treatment; 2) seawater pumping and desalinization; and 3) reclamation and reuse of municipal wastewater. These alternatives appeared to be feasible as they could be developed separately or combined. BPUB opted for brackish groundwater desalination and a 7.5 MGD facility to partially meet its current and future water supply needs. The brackish groundwater desalination facility was expanded to 10 MGD in 2015.

The benefits of this project include conserving the limited water resources, providing economic benefits to industrial demands, and providing lower cost water for residential, commercial and park irrigation.

Current treated wastewater flows at the Robindale WWTP average 8.2 MGD. With growth and demands on water supply, the substitution of high-quality reuse water will help to relieve the demands on Brownsville's water supply and treatment facilities, postponing water treatment expansion and water rights purchases.

From an economic standpoint, the substitution of reuse water will save the BPUB over $8 million in water rights acquisitions and will increase savings as demand grows. There will be approximately $8 million savings in the expansion of water treatment facilities to provide this demand.

## 3.9 PLUMBING FIXTURES AND RETROFIT PROGRAMS

As a long-range goal, BPUB has implemented a high efficiency toilet (HET) rebate program that is part of the BPUB GreenLiving Residential Rebate Program and the GreenWorking Commercial Rebate Program. The GreenLiving rebate program is a comprehensive residential and small business program, while the newly implemented for FY 2014 GreenBusiness rebate program targets BPUB's commercial customers. Both the GreenLiving and GreenBusiness rebate programs are geared to incentivize BPUB customers for their energy efficiency and water conservation efforts. In addition to promoting water efficiency, the HET rebate incentivizes residential and water customers

$50.00 per WaterSense certified HET or urinal installed. According to WaterSense, by using water efficient products and practices, consumers save natural resources, reduce water consumption, and save money. In order to realize these savings, consumers need to be able to identify products and services that use less water while performing as well as or better than conventional models. Each HET can use as little as 1.1 gallons per flush or GPF. BPUB has been a WaterSense® partner since early 2013 and an ENERGY STAR® partner since 2011.

Benefits of the BPUB GreenLiving and GreenBusiness Rebate Program Include:

- Incentivize BPUB customers for green initiatives and efforts.
- Reduce monthly customer energy and water consumption.
- Reduce potential and/or existing customer's overall monthly bill.
- Provide ENERGY STAR® and WaterSense® rated appliance awareness to the community.
- Reduce environmental emissions.
- Promote water and energy efficiency and conservation to BPUB's residential and small business customers.
- Reduce BPUB's peak load and demand.

Furthermore, during Earth Day, BPUB gives away approximately 400 Electric and Water Eco-kits to our customers who set up services (new connections) with BPUB. The water eco-kits include high efficiency showerhead, kitchen swivel aerators, bathroom aerators, water shutoff valves, plumbers' tape, leak detection tablets and BPUB conservation tips. BPUB feels that these kits are a great tool to help customers conserve in their new home or small business.

As a long-range goal, the BPUB plans to conduct a needs assessment study to expand its retrofit program to include water conservation kits. The retrofit program would be expanded based on the results of the study. The items that may be included in the kits are faucet aerators, low flow showerheads, dye tablets and toilet tank bags. The BPUB will provide a notice to its customers in its annual water conservation bill insert that retrofit kits are available at a cost. In addition, BPUB will review opportunities for implementing a high efficiency washing machine rebate program.

Additionally, the BPUB will offer assistance and advice with retrofit device installation. In its notice to its customers, the BPUB will underscore the favorable cost payback of such retrofits.

## 3.10 WATER SAVING PLUMBING CODE

Interior water uses in both residential and commercial settings is largely technology based. The amount of water required to accomplish a function is determined in great measure by the water use rates of fixtures and appliances. Therefore, enhancing the efficiency of these devices can produce significant reductions in water demand. For example, an old toilet installed under codes prevailing before 1980, would draw about 5.5 gallons per flush. Currently, toilets using 1.5 gallons per flush or less are becoming available. So the same function can be accomplished using about a quarter of the water. End use efficiency enhancement of interior water demands is therefore one of the major means of conserving water supplies.

End use efficiency enhancements would save money for the user through reduced water bills. Certain actions would also result in savings on energy bills by reducing the demand for hot water. The greatest benefit of increasing efficiency of end uses is that it will forestall the need to expand the capacity of water supply systems.

Improved technology has made it possible to accomplish considerable water savings through the use of more efficient plumbing fixtures. Among these water-saving plumbing fixtures are improved low-flow showerheads, low-volume toilets, water-saving washing and dishwashing machines, and flow-controlled or aerator faucets. Converting from an old clothes washer to a new, higher efficiency clothes washer can save 5.6 gpcd.

The City of Brownsville has adopted and enforces the 2018 International Plumbing Code. Section 406 of the Code includes water conservation requirements for new construction and renovations. BPUB adhered to the 2018 International Plumbing Code in the construction of two new buildings in 2021 and 2022.

Conservation Programs for Industrial, Commercial, and Institutional (ICI) Customers

Industrial, commercial, and institutional (ICI) customers account for about 32% of the water use in the BPUB service area. ICI customers can utilize the GreenBusiness

Commercial Rebate Program's WaterSense HET and urinal rebate component. BPUB plans to expand programs for ICI customer groups.

a. BPUB will identify and rank ICI accounts within 12 months of the implementation of the Conservation Plan pending the performance capabilities of the Customer Information System. If the Customer Information System is currently not capable, an upgrade would be required and the identification and ranking would be completed pending the upgrade of the system. ICI customers would be ranked by water use and water conservation potential.

b. ICI customers identified and prioritized by the Customer Information System will be evaluated to determine best-option programs to improve efficiencies.

## 3.11 WHOLESALE AGENCY ASSISTANCE PROGRAMS

The three wholesale customers (EJWSC, MHWSC and the BND) account for about 8% of the water use in the BPUB service area. BPUB has worked in cooperation with two of the wholesale agencies in several projects including the latest version of the Water and Wastewater Master Plan for the region. In addition, the service areas of the agencies overlap with BPUB, and BPUB's public awareness programs reach the agencies' customers.

## 3.12 MEANS OF IMPLEMENTATION AND ENFORCEMENT

BPUB and City of Brownsville will be responsible for the implementation and enforcement of the WCDC Plan. Implementation and enforcement can be performed under the Brownsville Code of Ordinances, which stipulates that all utility service furnished shall be in accordance with and in compliance with the Code of Ordinances, state laws, and city ordinances, rules and regulations.

## 3.13 METHOD TO MONITOR THE EFFECTIVENESS OF THE PLAN

The effectiveness and efficiency of the water conservation program will be monitored on an ongoing basis by the BPUB staff. BPUB will continue to track per capita water use and water system losses to determine whether water reduction goals are being achieved. The water conservation program, including reporting and evaluation, will be coordinated

through the BPUB. The BPUB will explore filling the position of Water Conservation Coordinator to work with BPUB staff in water production, water operations, water distribution, customer service, finance, and communications and public relations to coordinate implementation and evaluation of the plan. The BPUB will undertake any modifications that may be necessary to meet the needs of BPUB's customer base.

The review process will include presentation to the BPUB Consumer Advisory Panel (PUBCAP) to provide the opportunity for public input. PUBCAP was formed in 1983 to provide a forum for customers to express community concerns about electric, water and wastewater issues and about the utility company. PUBCAP meets monthly at the BPUB Boardroom. Notices of PUBCAP meetings, including agendas, are publicized in the local newspapers, social media and the BPUB website.

This review will include the following elements:

a. Progress made in the implementation, status, and effectiveness of the program;

b. Response to the program by the public; and

c. Quantitative effectiveness of the program.

## SECTION 4 DROUGHT CONTINGENCY PLAN: CITY OF BROWNSVILLE EMERGENCY WATER CONSERVATION ORDINANCE

Please see the following pages for Ordinance No. 2006-1134-B adopting the Drought Contingency Plan as provided herein.

**City of Brownsville, Texas**
**DROUGHT CONTINGENCY PLAN**

In 1986, the Brownsville City Commission adopted the first Emergency Water Conservation Plan. As part of the commitment in the Water Conservation Plan in 1999, the BPUB reviewed the 1986 Emergency Conservation Plan in 2001. The process included solicitation of comments from large water users and the public. As a result of those comments, changes were incorporated into the Plan, including the addition of a water-rationing program to be used during periods of severe water system emergencies. BPUB was also required to implement an education program on water conservation. The Emergency Water Conservation Plan/Ordinance (EWCO) was adopted by the City Commission in April 2002.

The purpose of the EWCO is to conserve and limit the demand of water during water emergencies. In addition, it provides for a water-rationing program to be used during periods of extended drought, acute water shortage, and/or water system emergencies. All persons, customers and/or property utilizing the Brownsville PUB's water system must fully comply with the terms and provisions of the Ordinance. Preference to water use and restrictions is not given to any customer or customer class.

The Brownsville City Code establishes the City's policy in the event of shortages or delivery limitations in the Brownsville PUB's water system. Under City Code, the Brownsville PUB's General Manager & CEO, or his/her designee, and the Mayor of the City of Brownville, or his/her designee, shall have the authority to implement the Drought Contingency Plan and be responsible for initiation and termination of applicable drought response stages. The General Manager & CEO, or his/her designee, shall have the authority to implement the water use restrictions.

The provisions of the Drought Contingency Plan apply to all persons, customers, and property utilizing water provided by the Brownsville PUB system. The term "person" and "customer" as used in the Drought Contingency Plan includes individuals, corporations, partnerships, associations, and all legal entities.

The water use restrictions imposed under this Drought Contingency Plan do not apply to reuse water sources, gray water, treated wastewater, or water supply sources other than that provided by the Brownsville PUB system. However, these restrictions apply to all pumping from the Resaca system within the City of Brownsville and pumping into the Resaca system by Brownsville PUB.

## 4.1 Stage 1 – Voluntary Water Conservation

Guidelines for Initiation:

Stage 1 will be automatically initiated on May 1 of each year. The Brownsville PUB General Manager & CEO, or his/her designee, and Mayor of the City of Brownsville, or his/her designee, may initiate Stage 1 when one or more of the following conditions occur:

| | |
|---|---|
| Condition 1: | The TCEQ Rio Grande Watermaster advises the Brownsville PUB that a water shortage is possible due to reduction of water levels in the Amistad and Falcon International Reservoirs; and/or |
| Condition 2: | The level of the United States' water stored in the Amistad and Falcon International Reservoirs reaches fifty-one percent (51%) or 1.66 million acre-feet as reported by the TCEQ Rio Grande Watermaster; and/or |
| Condition 3: | Line breaks, or pump or system failure due to hurricanes, flooding, freezes and/or some other natural or man-made cause may result in unprecedented loss of capability to provide service; and/or |
| Condition 4: | Peak demand on the Brownsville PUB's water distribution and/or treatment plants is nearing capacity levels and may place a strain on the system(s). |

Guidelines for Termination:

Stage 1 of the Drought Contingency Plan will be automatically rescinded on September 30 of each year, unless one or more of the triggering conditions listed above have ceased to exist for a period of three (3) consecutive days.

Goal:

Achieve a voluntary reduction in water use on the Brownsville PUB system.

Voluntary Water Use Restrictions:

Under Stage 1, customers will be requested to voluntarily conserve water and voluntarily adhere to any or all of the following water use restrictions as requested by the General Manager & CEO, or his/her designee:

(a) Recommend that all landscaped areas be irrigated on a twice per week schedule (as discussed under Stage 2) and that such irrigation occur from midnight through 7:00 a.m. Recommend that all landscaped areas be irrigated on a twice per week schedule (as discussed under Stage 2) and

that such irrigation occur from midnight through 7:00 a.m. and from 7:00 p.m. through midnight or other such hours as determined by the General Manager & CEO, or his/her designee. City and Governmental Agencies as well as Public Parks and Public Gardens will adhere to general restrictions throughout this Drought Contingency Plan.

(b) Recommend irrigation of landscaped areas to minimize waste by means of a hand-held garden hose, soaker hose, hand-held bucket or water can, no larger than five (5) gallons in capacity, hose-end sprinkler, irrigation system, computer-controlled irrigation system, or drip irrigation system.

(c) Recommend that water customers practice water conservation and minimize or discontinue water use for non-essential purposes (as defined in Stage 2 of this Plan).

(d) Recommend reductions in fire hydrant and sewer line flushing.

(e) No restrictions are recommended for fire-fighting and medical uses of water throughout this Drought Contingency Plan.

Actions to Be Taken by Brownsville PUB:

(a) Brownsville PUB staff will work with major water users to voluntarily reduce water use where possible.

(b) Brownsville PUB staff will conduct public information programs to educate customers and to enlist their support of voluntary water use restrictions. Alternatives to non-- essential water use, where available, will be suggested as a part of the public education process.

### 4.2 Stage 2– Water Shortage Alert

Guidelines for Initiation:

The General Manager & CEO, or his/her designee, and the Mayor of the City of Brownsville, or his/her designee, may initiate Stage 2 when one or more of the following conditions occur:

Condition 1: The level of the United States' water stored in the Amistad and Falcon International Reservoirs reaches twenty-five percent (25%) or 834,600 acre-feet as reported by the TCEQ Rio Grande Watermaster; and/or

Condition 2: Analyses of water supply and demand indicates the City of Brownsville/Brownsville PUB's annual water allotment may be exhausted; and/or

Condition 3: Line breaks, or pump or system failure due to hurricanes, flooding freezes and/or some other natural or man-made cause will result in unprecedented loss of capability to provide service; and/or

Condition 4: Peak demands on the Brownsville PUB's water distribution and/or treatment plants are nearing capacity levels and will place a strain on the system(s).

Condition 5: Contamination of the water supply and/or transmission & distribution system due to hurricanes, freezes and/or some other natural or man-made cause may result in unprecedented loss of capability to provide service.

Guidelines for Termination:

Stage 2 of the Drought Contingency Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of Stage 2, the restrictions imposed under Stage 1 remain operative unless also rescinded.

Goal:

The goal for Stage 2 is a five percent (5%) reduction in average daily water demands and a ten percent (10%) reduction in maximum daily water demands on the Brownsville PUB system.

Water Use Restrictions:

All restrictions/requirements enacted under Stage 1 will remain in effect during Stage 2. Any or all of the following water use restrictions, as determined by the General Manager & CEO, or his/her designee, will apply during Stage 2:

(a) Landscape irrigation including, but not limited to, irrigation systems and hose-end sprinklers, hand-held garden hose, soaker hose, hand-held bucket or water can, no larger than five (5) gallons in capacity, or drip irrigation system will be limited to two (2) times per week based on the last digit of the service address and that such irrigation will occur from midnight through 7:00a.m. and from 7:00p.m. through midnight or other such hours as determined by the General Manager & CEO, or his/her designee.

| Last Digit of Service Address | Watering Days |
|---|---|
| 0 or 1 | Monday, Saturday |
| 2 or 3 | Tuesday, Saturday |
| 4 or 5 | Wednesday, Saturday |
| 6 or 7 | Thursday, Sunday |
| 8 or 9 | Friday, Sunday |

Properties having multiple addresses will be identified by the lowest address number. If no address exists, the General Manager & CEO, or his/her designee, will assign an address.

(b) New landscaping plants (any member of the plant kingdom, including any tree, shrub, vine, herb, flower, succulent, groundcover, grass or turf species) may be irrigated any day during Stage 2 hours. Property owners will apply for a Landscape Irrigation Variance by submitting to the applicable retail water supplier by mail, facsimile, or e-mail their name, address where the new landscape is to be installed, and the date of installation. The retail water supplier will provide a confirmation letter granting the property owner the variance. All landscaping plants shall no longer be deemed new landscaping plants upon the passage of four (4) weeks since the date of planting. Property owners may reapply for an additional four-week variance, if required, for a total of an eight- week variance. Thereafter, landscape irrigation is permitted only on designated landscape watering days and times.

(c) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited, except on the designated landscape watering days. Such residential car washing will be allowed between the hours of midnight through 10:00 a.m. and 7:00 p.m. through midnight or other such hours as determined by the General Manager or his/her designee. Residential car washing will be performed with a hand-held bucket or water can, not to exceed five (5) gallons in capacity, or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. It is recommended that any vehicle not be washed more than two (2) times per month when this restriction is active during Stage 2 or a greater stage. Vehicle washing may be done at any time on the immediate premises of a commercial vehicle wash facility. Vehicle washing may be exempted from these regulations if the health, safety, and/or welfare of the public are contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables. Fundraising car washes will fall under these same restrictions and are considered residential car washing within this Drought Contingency Plan.

(d) Water use restrictions for golf courses will be based on the water management plan developed by the golf courses and approved by the General Manager, or his/her designee.

(e) Restaurants will be prohibited from serving water to non-employees except when requested by the non-employee.

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

(1) Washing any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas except to alleviate public safety and/or health hazards;
(2) Using water to wash buildings or structures for purposes other than immediate fire protection or in preparation for painting;
(3) Using water for dust control except to alleviate public safety and/or health hazards;
(4) Flushing gutters or permitting water to run or accumulate in any gutter or street;
(5) Failing to repair controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

Actions to Be Taken by Brownsville PUB:

(a) The Brownsville PUB will initiate public information alerts using both print and electronic media.

(b) The Brownsville PUB will work with civic groups, neighborhood associates, summer youth programs, and the like to encourage water conservation.

### 4.3 Stage 3 – Water Shortage Warning

Guidelines for Initiation:

The General Manager & CEO, or his/her designee, and the Mayor of the City of Brownsville, or his/her designee, may initiate stage 3 of the Drought Contingency Plan when one or more of the following conditions occur:

Condition 1: The level of the United States' water stored in the Amistad and Falcon International Reservoirs reaches fifteen percent (15%) or 504,600 acre-feet as reported by the TCEQ Rio Grande Watermaster; and/or

Condition 2: Analyses of water supply and demand indicates the City of Brownsville/Brownsville PUB's annual water allotment will be exhausted; and/or

Condition 3: Major line breaks, or pump or system failure due to hurricanes, flooding, freezes, and/or some other natural or man-made cause may result in unprecedented loss of capability to provide service; and/or

Condition 4: Peak demand on the Brownsville PUB's water distribution and/or treatment plants has exceeded capacity levels for 3 days and has placed a strain on the system. Without restraint, service to all utility customers cannot be guaranteed; and/or

Condition 5: Contamination of the water supply and/or transmission & distribution system due to hurricanes, freezes and/or some other natural or man-made cause will result in unprecedented loss of capability to provide service; and/or

Condition 6: The inability to maintain or replenish adequate volumes of water in storage to provide for public health and safety.

Guidelines for Termination:

Stage 3 of the Drought Contingency Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of Stage 3, the restrictions imposed under Stage 2 and Stage 1 remain operative unless also rescinded.

Goal:

The goal for Stage 3 is ten percent (10%) reduction in average daily water demands and a twenty percent (20%) reduction in maximum daily water demands on the Brownsville PUB system.

Water Use Restrictions:

All restriction/requirement of Stage 1 and 2 will remain in effect during Stage 3. Any or all of the following water use restrictions, as determined by the General Manager & CEO, or his/her designee, will apply during Stage 3.

**Surcharges may be imposed at this stage as outlined in section 4.7.1 (a), 4.7.2 (a), and 4.7.3 of this Drought Contingency Plan.**

(a) Landscape irrigation including, but not limited to, irrigation systems and

hose-end sprinklers, hand-held garden hose, soaker hose, hand-held bucket or water can, no larger than five (5) gallons in capacity, or drip irrigation system will be limited to **one time per week** based on the last digit of the service address and that such irrigation occur from midnight through 7:00 a.m. and from 7:00p.m. through midnight or other such hours as determined by the General Manager, or his/her designee.

| **Last Digit of Service Address** | **Watering Days** |
|---|---|
| 0 or 1 | Monday |
| 2 or 3 | Tuesday |
| 4 or 5 | Wednesday |
| 6 or 7 | Thursday |
| 8 or 9 | Friday |

(b) Residential car washing will be allowed once per week on the designated landscape watering day between the hours of midnight through 10:00 a.m. and 7:00p.m. through midnight or other such hours as designated by the General Manager, or his/her designee. Such washing will be performed with a hand-held bucket or water can, not to exceed five (5) gallons in capacity, or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. Vehicle washing may be done at any time on the immediate premises of a commercial vehicle wash facility. Vehicle washing may be exempted from these regulations if the health, safety, and/or welfare of the public are contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.

(c) Fundraising car washes are prohibited.

(d) New landscaping plants may be watered twice per week on the designated landscape watering schedule discussed under Stage 2. Property owners will apply for a Landscape Irrigation Variance by submitting to their retail water supplier by mail, facsimile, or e-mail their name, address where the new landscape is to be installed, and the date of installation. The retail water supplier will provide a confirmation letter granting the property owner the variance. All landscaping plants shall no longer be deemed new landscaping plants upon the passage of four (4) weeks since the date of planting. Property owners may reapply for an additional four-week variance, if required, for a total of an eight-week variance. Thereafter, landscape watering is permitted only on the designated landscape watering days and times of Stage 3.

(e) Use of water from hydrants will be limited to firefighting related activities,

or other activities necessary to maintain public health, safety, and/or welfare. Use of water from designated fire hydrants for construction purposes may be allowed under special permit from the Brownsville PUB.

(f) Adding water to pools, except to maintain structural integrity, is prohibited.

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

(h) The use of water from scenic and recreational ponds and lakes (resacas) is prohibited. Pumping water into the resacas is prohibited, except where necessary to support aquatic life.

Actions to Be Taken by Brownsville PUB:

The Brownsville PUB will initiate public information alerts using both print and electronic media.

### 4.4 Stage 4 – Water Shortage Emergency

Guidelines for Initiation:

The General Manager & CEO, or his/her designee, and the Mayor of the City of Brownsville, or his/her designee, may initiate Stage 4 of the Drought Contingency Plan when it is determined that a water emergency exists, including but not limited to one or more of the following conditions:

Condition 1: Major line breaks, or pump or system failures occur which cause unprecedented loss of capability to provide water service; or

Condition 2: Natural or man-made contamination of water supply and/or transmission & distribution system; or

Condition 3: Significant decrease or lack of water supply.

Guidelines for Termination:

Stage 4 of the Drought Contingency Plan may be rescinded when the conditions listed as triggering events have ceased for a period of three (3) consecutive days. Upon termination of Stage 4, the restrictions imposed under Stage 3, Stage 2 and Stage 1 remain operative unless also rescinded.

Goal:

The goal for Stage 4 is to restrict water usage to allow the Brownsville PUB system to recover from the emergency condition.

Water Use Restrictions:

All restrictions/requirements of Stage 1, 2 and 3 will remain in effect during Stage 4 of the Drought Contingency Plan. Any or all of the following water use restrictions, as determined by the General Manager & CEO, or his/her designee, will apply under Stage 4.

The General Manager & CEO, or his/her designee, may combine water rationing with any or all of the Stage 4 water use restrictions as necessary. **Water rationing surcharges may be imposed at this Stage as outlined in section 4.7.1 (b) and 4.7.2 (b) of this Drought Contingency Plan.**

(a) All landscape watering is **prohibited.**

(b) New plantings of landscaping plants are **prohibited.**

(c) The use of water for construction purposes under special permit is **prohibited.**

(d) The use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle not in the immediate interest of public health, safety, and/or welfare is **prohibited.**

(e) The filling, refilling, or adding of water to swimming pools and jacuzzi-type pools to a maintenance level is **prohibited.**

(f) The addition of water to a maintenance level in any outdoor or indoor fountain or pond for aesthetic or scenic purposes is **prohibited** except where necessary to support aquatic life.

Actions to Be Taken by Brownsville PUB:

The Brownsville PUB will initiate public information alerts using both print and electronic media.

## 4.5 Water Rationing

In the event that water shortage conditions threaten the public health, safety, and welfare, the General Manager & CEO, or his/her designee, is authorized to ration water. The General Manager & CEO, or his/her designee, may initiate water rationing with any or all Stage 4 water use restrictions of this Drought Contingency Plan as necessary.

The purpose of the water-rationing plan is to implement and enforce the mandatory limits on water usage deemed necessary by the General Manager & CEO, or his/her designee.

When this water-rationing plan refers to allocation or water usage periods as "month", "monthly", "billing period", and the like, such references shall mean the period in the retail water suppliers' ordinary billing cycle which commences with the reading of a meter one month and ends with the reading of that meter which is usually the next month. The goal for the length of such period is thirty (30) days, but a variance of two (2) days, more or less, may exist as to certain meters. If a meter reader is prevented from timely reading a meter by any obstacle that is attributable to the customer, the original allocation shall apply to the longer period without modification.

The limits of this water-rationing plan shall be in effect for water used on or after the date of these limits; changes and other requirements are to become effective as published by the General Manager & CEO or his/her designee.

**It** shall be a defense to the termination of service that water used over the allocation amount resulted from loss of water through no fault of the customer (for example, a major water line break). The customer shall have the burden to prove such defense by objective evidence (for example, a written certification of the circumstances by a plumber). A sworn statement may be required of the customer. This defense shall not apply if the customer failed to:

(1) Take reasonable steps for upkeep of the plumbing system;

(2) Reasonable inspect the system and discover the leak;

(3) Take immediate steps to correct the leak after discovered; or

(4) Was in any other way negligent in causing or permitting the loss of water.

### 4.5.1 Residential Customers Water Allocation

In the event that the General Manager & CEO, or his/her designee, initiates water rationing, the following guidelines will be used to ration water to residential water customers;

(a) Residential customers will be allocated up to 10,000 gallons of water per month.

(b) Under severe drought or emergency situations, the General Manager & CEO or his/her designee, may establish a monthly allocation amount less than 10,000 gallons of water per month to residential customers.

### 4.5.2 Non-residential Customers Water Allocation

In the event that the General Manager & CEO, or his/her designee, initiates water rationing, a monthly water usage allocation shall be established by the General Manager & CEO, or his/her designee, for each non-residential customer as follows:

Method of establishing allocation:
The non-residential customer's allocation shall be approximately 60 percent (60%) of the customer's monthly average usage for the twelve-month period ending prior to the date of implementation of Stage 4.

Upon request of the customer or at the initiative of the General Manager & CEO, or his/her designee, the allocation may be reduced or increased if:

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

(2) Other objective evidence demonstrates that the designated allocation is inaccurate under pressure conditions.

### 4.6 Fees Assessed to Non-Residential Customers

The Brownsville PUB is authorized to adopt a list of charges and fees that may include:

(1) Fees for conducting water audits; these fees will be shared between the Brownsville PUB and its non-residential customers;

(2) Other fees as the Brownsville PUB may deem necessary to carry out the requirements contained herein.

These fees relate solely to the matters covered by this Ordinance and are separate from other fees charged by the City of Brownsville.

### 4.7 Surcharges

The surcharges established below are intended solely to regulate and deter the wasteful use of water during a period of serious drought to achieve necessary water conservation. The surcharges may become effective when the General Manager & CEO, or his/her designee, initiates Stage 3 of the Drought Contingency Plan. The surcharges will be implemented on the next billing cycle after the declaration of implementation of Stage 3. The surcharges will remain in effect until Stage 3 of the drought contingency plan is rescinded or until suspended by the General Manager & CEO, or his/her designee. Upon suspension of Stage 3, the surcharge will be discontinued after a completed sequence of all billing cycles. The Brownsville PUB expressly finds that drought conditions pose a serious and immediate threat to the general and economic health and welfare of its service area, and that the surcharges and other measures adopted herein are essential to protect

the public health and welfare. The surcharges herein are in no way to be considered rates to generate revenue.

It shall be a defense to the imposition of a surcharge hereunder, that water used over the allocation amount resulted from loss of water through no fault of the customer (for example, a major water line break). The customer shall have the burden to prove such defense by objective evidence (for example, a written certification of the circumstances by a plumber). A sworn statement may be required of the customer. This defense shall not apply if the customer failed to:

(1) Take reasonable steps for upkeep of the plumbing system;

(2) Reasonably inspect the system and discover the leak;

(3) Take immediate steps to correct the leak after discovered; or

(4) Was in any other way negligent in causing or permitting the loss of water.

### 4.7.1 Residential Water Customers—Inside and Outside City Rates

**(a) Stage 3 Residential Surcharges**

Residential water customers shall pay a surcharge in addition to the normal charges for the consumption of water. The Brownsville PUB, at the discretion of the General Manager & CEO, or his/her designee, to initiate surcharges, will reduce the first residential rate block to 10,000 gallons and increase the rate of the last applicable rate block by fifty percent (50%). Consumption beyond a 10,000-gallon allocation level is deemed to be non-essential water use. Residential water customers shall pay the following surcharge:

Over 10,000 gallons: .....1.50 × current rate

**(b) Stage 4 Residential Water Rationing Surcharges**

Effective with Stage 4, the Brownsville PUB, at the discretion of the General Manager & CEO, or his/her designee, may initiate water-rationing level less than 10,000 gallons. A water rationing surcharge shall be levied against all member entities' residential water customers during Stage 4 and will represent a one-hundred percent (100%) increase of the last applicable rate block. Consumption beyond the designated water allocation level is deemed to be non-essential water use. Residential water customers shall pay the following water-rationing surcharge:

Over water allocation amount:.....2.00 × current rate

### 4.7.2 Non-Residential Water Customers

The term "Non-Residential" shall mean service that does not qualify as Residential, Wholesale, Fire Support, or Temporary Services, and specifically includes service to "Single Family Attached Dwellings" defined in the service policies adopted by the Brownsville PUB.

**(a) Non-Residential Surcharges**

Non-Residential water customers, at the discretion of the General Manager & CEO, or his/her designee to initiate surcharges, shall pay a surcharge in addition to the normal charges for the consumption of water. This surcharge represent a twenty-five percent (25%) increase of the non-residential rate for any water used over an amount equal to eighty percent (80%) of the customer's monthly average usage for the twelve (12) month period ending prior to the date of implementation of Stage 3. Non-residential water customers shall pay the following water-rationing surcharge:

All volumes in excess of monthly allocated amount:.....1.25 × current rate

**(b) Stage 4 Non-Residential Water Rationing Surcharges**

Effective with Stage 4, the Brownsville PUB General Manager & CEO, or his/her designee, may initiate water rationing and designate a water allocation level for each non-residential customer. A water-rationing surcharge shall be levied against all non-residential water customers during Stage 4 and will represent a twenty-five percent (25%) increase of the non-residential rate for any water used over an amount equal to sixty percent (60%) of the customer's monthly average usage for the twelve (12) month period ending prior to the date of implementation of Stage 4. Non-residential water customers shall pay the following water-rationing surcharge:

All volumes in excess of water allocation amount:.....1.25 × current rate

**4.7.3 Irrigation Accounts**

At the discretion of the General Manager & CEO, or his/her designee, to initiate surcharges, residential and non-residential customers having a separate irrigation account shall pay a surcharge in addition to the normal charges for the consumption of water. This surcharge shall be a fifty percent (50%) increase on the last residential rate block. Residential and non-residential water customers shall pay the following surcharge:

Monthly water consumption:.....1.50 x current rate

**4.8 Wholesale Customers**

Wholesale customers shall adopt a similar water-rationing plan within their drought contingency plans to enforce the mandatory limits on water usage required in Stage 3 of the Drought Contingency Plan. Brownsville PUB will include a provision in every wholesale water contract entered into or renewed after adoption of the plan, including contract 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.

### 4.9 Reconnection Fees

Service discontinues due to violations of the provisions of this Drought Contingency Plan as outlined in section "Termination of Service" shall be restores only upon payment of a reconnection charge. In addition, suitable assurance must be given to the General Manager & CEO, or his/her designee, that the same action shall not be repeated while the Plan is in effect.

For residential and non-residential customers, water service shall be restored after the first disconnection upon payment of the current reconnection fees increased by 100% (or two times the current fees), plus any other outstanding utility charges. For such customers after the second disconnection, water service shall be restored upon payment of the current reconnection fees increased by 200% (or three times the current fees), plus any other outstanding utility charges. If water service is disconnected a third time for such customer, water service shall not be restored until the Brownsville PUB re-enters a level of water conservation less than Stage 3.

### 4.10 Enforcement

No person shall knowingly or intentionally allow the use of water from the Brownsville PUB system for residential, commercial, industrial, agricultural, governmental, or any purpose in a manner contrary to any provision of this Drought Contingency Plan, or in an amount in excess of that permitted by the Drought Contingency Plan stage in effect at the time pursuant to action taken by the General Manager & CEO and/or City of Brownsville Mayor, or his/her designee, in accordance with the provisions of this Drought Contingency Plan.

Any Brownsville PUB and/or City of Brownsville employee, as designated by the General Manager & CEO and/or City of Brownsville Mayor, or his/her designee, may issue a warning to a person he/she reasonably believes to be in violation of this Drought Contingency Plan. During severe emergency situations, the General Manager & CEO, or his/her designee, may designate Brownsville PUB employees to assist the City of Brownsville in issuing citations to persons violating the restrictions of this Drought Contingency Plan.

A person, including a person classified as a water customer of the Brownsville PUB, in apparent control of the property where a violation occurs or originates shall be presumed to be a violator, and proof that the violation occurred on the person's property shall constitute a rebuttable presumption that the person in apparent control

of the property committed the violation. Parents shall be presumed to be responsible for violations of their minor children and proof that a violation, committed by a child, occurred on property within the parent's control shall constitute a rebuttable presumption that the parent committed the violation, but any such parent may be excused if he/she proves that they had previously directed the child not to use the water as it was used in the violation and that the parent could not have reasonable known of the violation.

Any person who violates this Drought Contingency Plan is guilty of a misdemeanor and, upon conviction, shall be imposed the current fine for violation of an ordinance, as applicable to the retail supplier's service area. Each day that any one or more provisions in this Drought Contingency Plan is violated shall constitute a separate offense.

### 4.10.1 Termination of Service

If a person is convicted of three or more distinct violations of the provisions of this Drought Contingency Plan, the General Manager & CEO, or other designated employee, shall, upon due notice to the customer, be authorized to discontinue water service to the premises where such violations occur.

If a person exceeds the water allocation permitted under water rationing in Stage 4 two or more times, the General Manager & CEO, or his/her designee, shall, upon due notice to the customer, be authorized to discontinue water service to the premises where such violations occur.

## 4.11 Variances

The General Manager & CEO, or his/her designee, will consider requests of water users for special consideration to be given to their respective peculiar circumstances and the General Manager & CEO, or his/her designee, will hear and decide such requests. The General Manager & CEO, or his/her designee, is authorized to, in special cases, grant such variances from the terms of this Drought Contingency Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public of the person requesting such variance and if one or more of the following conditions are met:

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

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

Persons requesting a variance from the provisions of this Plan shall file a written petition for variance with either the Brownsville PUB. All petitions for variances shall be reviewed by the General Manager, or his/her designee, and shall include the following:

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

(2) Purpose of water use;

(3) Specific provisions(s) of the Plan from which the petitioner is requesting relief;

(4) Detailed statement as to how the specific provision(s) of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner of others if petitioner complies with this plan;

(5) Description of the relief requested;

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

(7) Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date;

(8) Other pertinent information;

The General Manager & CEO, or his/her designee, will consider the facts of each case and render a decision to grant a variance within ten (10) business days of the receipt of a petition for a variance. A variance expires under its own terms and conditions and/or when another stage of the Drought Contingency Plan is in effect unless otherwise granted by the General Manager & CEO, or his/her designee. The variance will be in effect from time of granting provided that the variance permit is prominently posted on the premises. No variance will be retroactive or otherwise justify any violation of the Drought Contingency Plan occurring prior to the issuance of the variance.

Should a protest be received after granting of such variance, the General Manager & CEO, or his/her designee, shall consider the revocation of the regranting of the variance. The General Manager & CEO, or his/her designee, shall take such action by either upholding the variance as granted, or modifying it as may be deemed proper under the circumstances. All decisions by the General Manager & CEO, or his/her designee, may be appealed to the Board of Directors of the Brownsville PUB.

**4.12 Severability**

It is hereby declared to be the intention of the Brownsville City Commission that the sections, paragraphs, sentences, clauses and phrase of this Drought Contingency Plan are severable and, if any phrase, clause, sentence, paragraph or section of the Drought Contingency Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this Drought Contingency Plan, since the same would have been enacted by the Brownsville City Commission without the incorporation into this Drought Contingency Plan of any such unconstitutional phrase, clause, sentence, paragraph or section.

### 4.13 Amendments

The regulations, requirement, restrictions and provisions in this Drought Contingency Plan may from time to time be amended, supplemented, changes or repealed, provided, however, that no such action may be taken until after a public hearing in relation thereto, at which parties in interest and citizens shall have an opportunity to be heard. Notice of the time and place of such hearing shall be published in a newspaper of general circulation in the City at least 15 days in advance.

### 4.14 Minimum Requirements

In their interpretation and application, the provisions of this Drought Contingency Plan shall be held to be minimum requirements, adopted for the promotion of the public health, safety, morals, and general welfare. Whenever the requirements, regulations, restrictions and provisions of this Drought Contingency Plan are in conflict with any of the lawfully adopted requirements, regulations, restrictions and provisions of any other Ordinance for the applicable service area, the most restrictive, or that imposing the higher standers, shall govern.

### 4.15 Effective Date

This Drought Contingency Plan shall become effective after it is passed and approved by the Board of Directors of the Brownsville PUB and by the City Commission as provided by the Charter of the City of Brownsville, Texas and the laws of the State of Texas.

## Drought Contingency Plan
## Definitions

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

***Bucket***. Bucket of other container holding five gallons or less, used singly by one person.

***Drip irrigation***. An irrigation system (drip, porous, pipe, etc…) that applies water at low-flow levels directly to the roots of the plant.

***Existing landscaping plant***. A landscaping plant existing after such period of time as to accomplish an establishment and maintenance of growth.

***Golf Course***. An irrigated and landscaped playing area made up of greens, tees, fairways, roughs, and related areas used for the playing of golf.

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

***Hose-end sprinkler***. A sprinkler that applies water to landscape plants that is piped through a flexible, movable hose.

***Household use***. The use of water, other than uses in the Outdoor category, for personal needs or for household purposes, such as drinking, bathing, heating, cooking, sanitation or cleaning, whether the use occurs in a residence or in a commercial or industrial facility.

***Industrial use***. The use of water – for or in connection with – commercial or industrial activities, including manufacturing, bottling, brewing, food processing, scientific research and technology, recycling, production of concrete, asphalt, and cement, commercial uses of water for tourism, entertainment, and hotel or motel lodging, generation of power other than hydroelectric, and other business activities.

***Irrigation System***. Also referred to as in-ground or permanent irrigation system, a system with fixed pipes and emitters or heads that apply water to landscape plants.

***Landscape watering***. The application of water to grow or maintain landscaping plants, such as flowers, ground covers, turf or grasses (other than golf courses or athletic fields), shrubs, trees. For purposes of this division, does not include:

a) Essential use without waste of water by a commercial nursery to the extent the water is used for production rather than decorative landscaping;
b) Application of water without waste to a non-commercial family garden or orchard the produce of which is for household consumption only; and

c) Application of water in the morning before 7:00a.m. and in the evening after 7:00 p.m. by means of a bucket (not to exceed 5 gallons in capacity), hand-held hose, soaker hose, or properly-installed drip irrigation system, immediately next to a concrete foundation solely for the purpose of preventing, and to the extent the watering is necessary to prevent, substantial damage to the foundation of the structure caused by movement of the foundation.

***Landscaping plant.*** Any member of the Kingdom Plant, including any tree, shrub, vine, herb, flower, succulent, groundcover or grass species, that grows or has been planted out-of-doors.

***Maintenance Level.*** The level of water in a swimming pool required for proper operations of circulation and filter equipment for the swimming pool.

***New landscaping plant.*** Any plant or seed planted in or transplanted to an area within such period of time as to accomplish a reasonable establishment and maintenance of growth. Application of grass seed to an existing stand of grass or turf is not considered new landscaping for the purposes of this chapter.

***Other outdoor use.*** The use of water outdoors for the maintenance, cleaning and washing of structures and mobile equipment, including automobiles and boats, or the washing of streets, driveways, sidewalks, patios and other similar areas.

***Park.*** A tract of land, other than a golf course, maintained by a city, private organization, or individual, as a place of beauty or of public recreation.

***Previous surface.*** Any ground surface which can absorb water or other liquids.

***Property address.*** The street address of a property, unless multiple street addresses are served by a single meter, in which case the billing address will be used.

***Public.*** Municipally-owned or operated facilities.

***Soaker-hose.*** Plastic or flexible hose with holes that send a fine spray in the air. Also includes flexible leaky hoses that emit water across the entire length based on water pressure, and connect directly to a flexible hose or spigot.

***Sprinkler.*** An emitter that applies water to the landscape plants in a stream that travels through the air. Sprinkler irrigation can be applied by an irrigation system or hose-end sprayer or a soaker hose that sprays water in the air.

***Surcharge.*** An additional charge added to the cost of a good or service beyond the initially quoted price.

***Swimming Pool.*** Any structure, basin, chamber, or tank, including hot tubs, containing an artificial body of water for swimming, diving, or recreational bathing, and having a depth of two feet or more at any point.

***Water Conservation Plan.*** The water conservation plan must include proof of irrigation efficiency of 60% or greater and demonstrate specific measures to be taken to reduce consumption to meet the reduction goal established for each Stage I, II, and III.

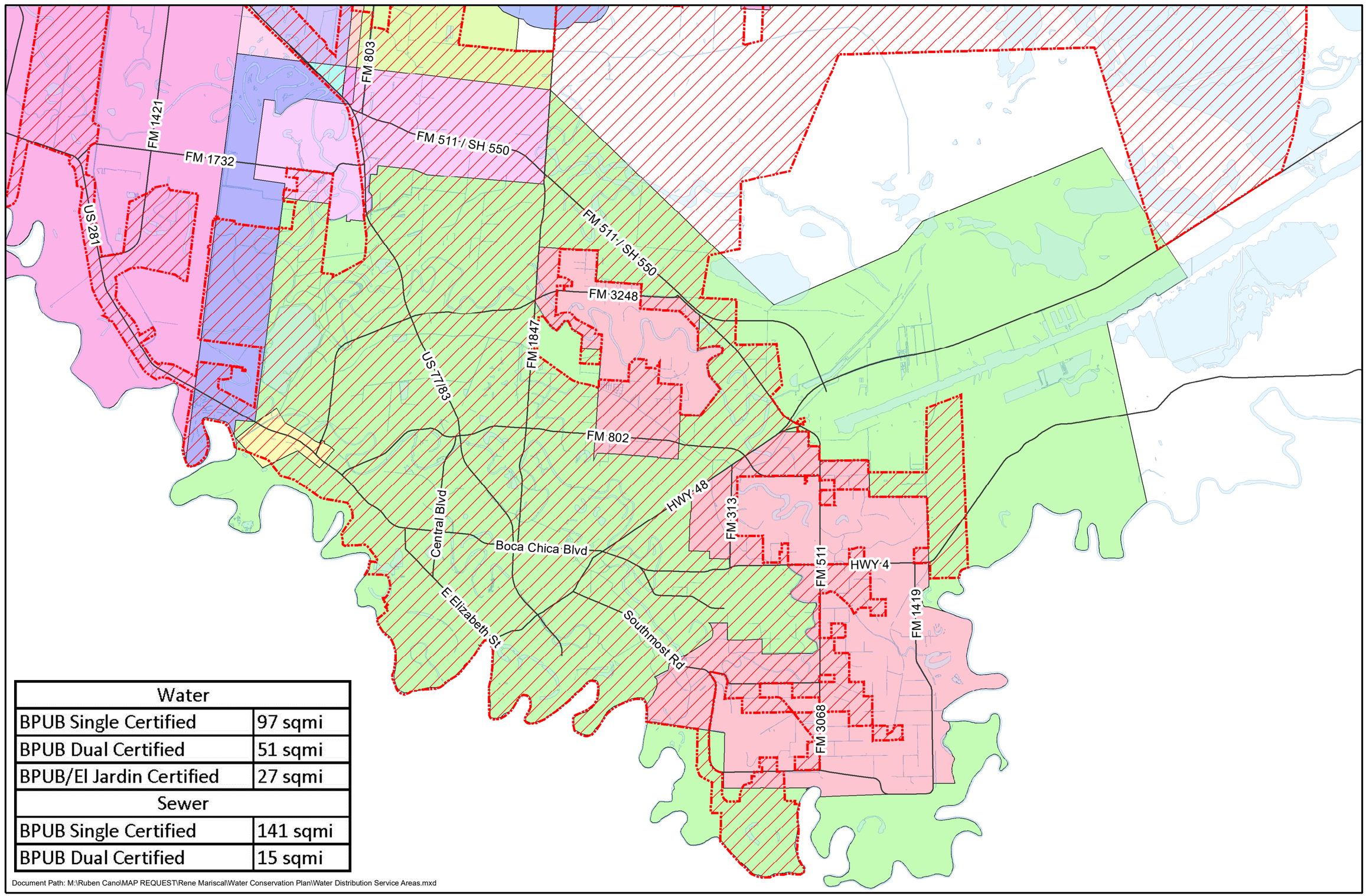
***Watering day.*** A day designated for landscape watering limited to the standard 24-hour period of 12:00 a.m. to midnight. Thus, if it is Stage I and Wednesday is a designated watering day, the period of time referenced is Wednesday morning between midnight to 7: 00a.m and Wednesday evening between 7:00p.m. and midnight.

FIGURE 1

BROWNSVILLE PUBLIC UTILITIES BOARD

WATER SERVICE AREA

# Water Certification Boundaries




| Water | |
|---|---|
| BPUB Single Certified | 97 sqmi |
| BPUB Dual Certified | 51 sqmi |
| BPUB/El Jardin Certified | 27 sqmi |
| **Sewer** | |
| BPUB Single Certified | 141 sqmi |
| BPUB Dual Certified | 15 sqmi |

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BROWNSVILLE PUBLIC UTILITIES BOARD
GEOGRAPHIC INFORMATION SYSTEMS DEPARTMENT

**Legend**

- City Limits
- Primary Roads
- Resacas/River

**Water Certification Areas**

**UTILITY**

- BPUB
- BPUB/Boca Chica
- BPUB/E Rio Hondo
- BPUB/E Rio Hondo/Olmito
- BPUB/El Jardin
- BPUB/MUD 2
- BPUB/Mil Hwy
- BPUB/Olmito
- Bayview
- Boca Chica
- E Rio Hondo
- E Rio Hondo/Harlingen W
- E Rio Hondo/Los Fresnos
- E Rio Hondo/Olmito
- Harlingen W
- La Feria
- Long Island U D
- Los Fresnos
- MUD 2
- Mil Hwy
- North Alamo
- Olmito
- Rio Hondo
- San Benito
- San Benito/E Rio Hondo
- Santa Rosa
- Sebastian MUD

N W E S

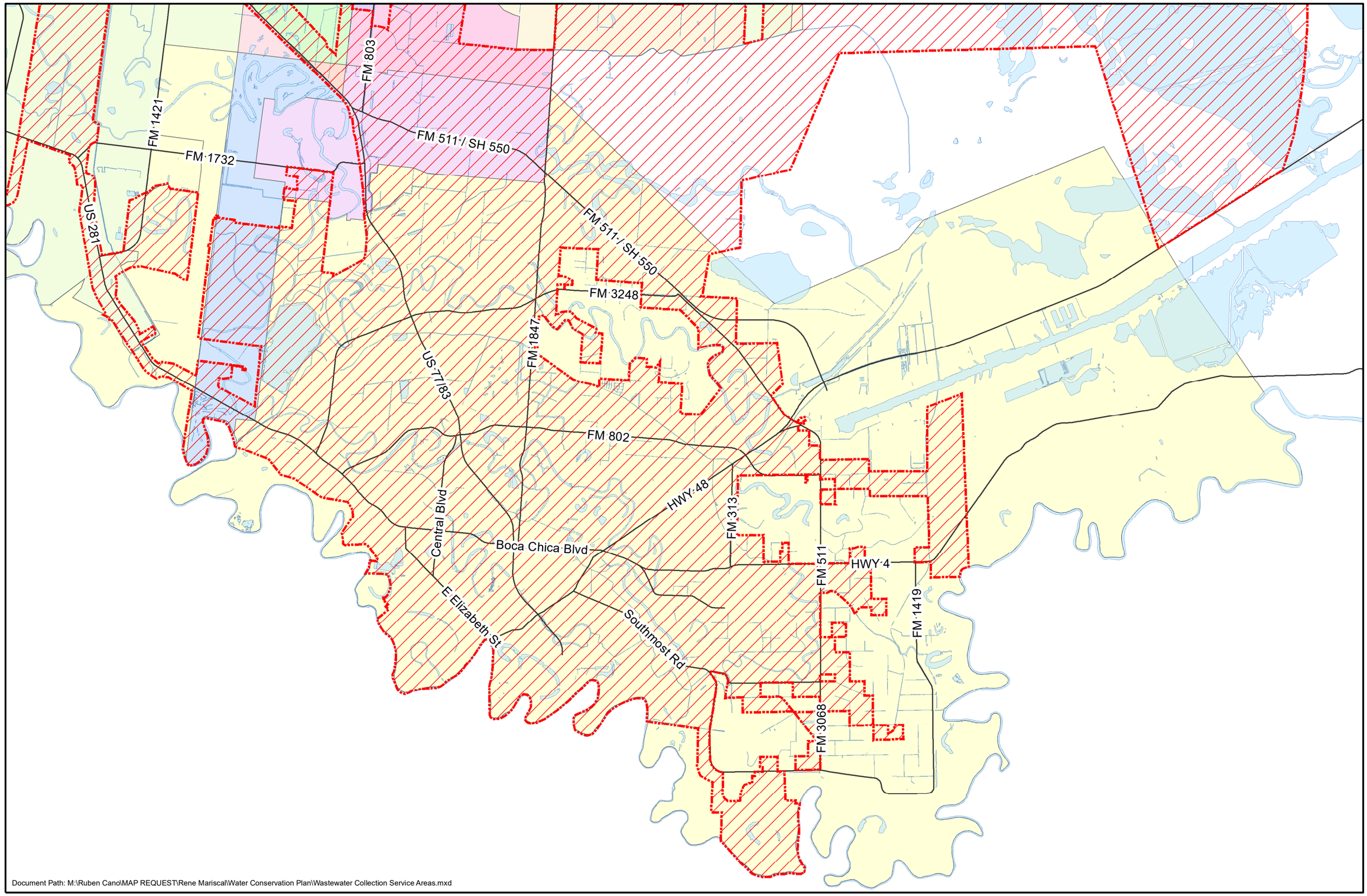
1 inch = 8,000 feet

FIGURE 2

BROWNSVILLE PUBLIC UTILITIES BOARD

WASTEWATER SERVICE AREA

# Wastewater Certification Boundaries




BROWNSVILLE PUBLIC UTILITIES BOARD
GEOGRAPHIC INFORMATION SYSTEMS DEPARTMENT

**Legend**

- City Limits
- Primary Roads
- Resacas/River

**Waste Water Certification Areas**

**UTILITY**

- BPUB
- BPUB/E Rio Hondo
- BPUB/MUD 2
- BPUB/Olmito
- Bayview
- E Rio Hondo
- Harlingen
- J-Frias
- La Feria
- Long Island U D
- Los Fresnos
- Los Fresnos/Olmito
- MUD 2
- Mil Hwy
- North Alamo
- Olmito
- Rio Hondo
- San Benito
- Santa Rosa
- Sebastian MUD

N W E S

1 inch = 8,000 feet



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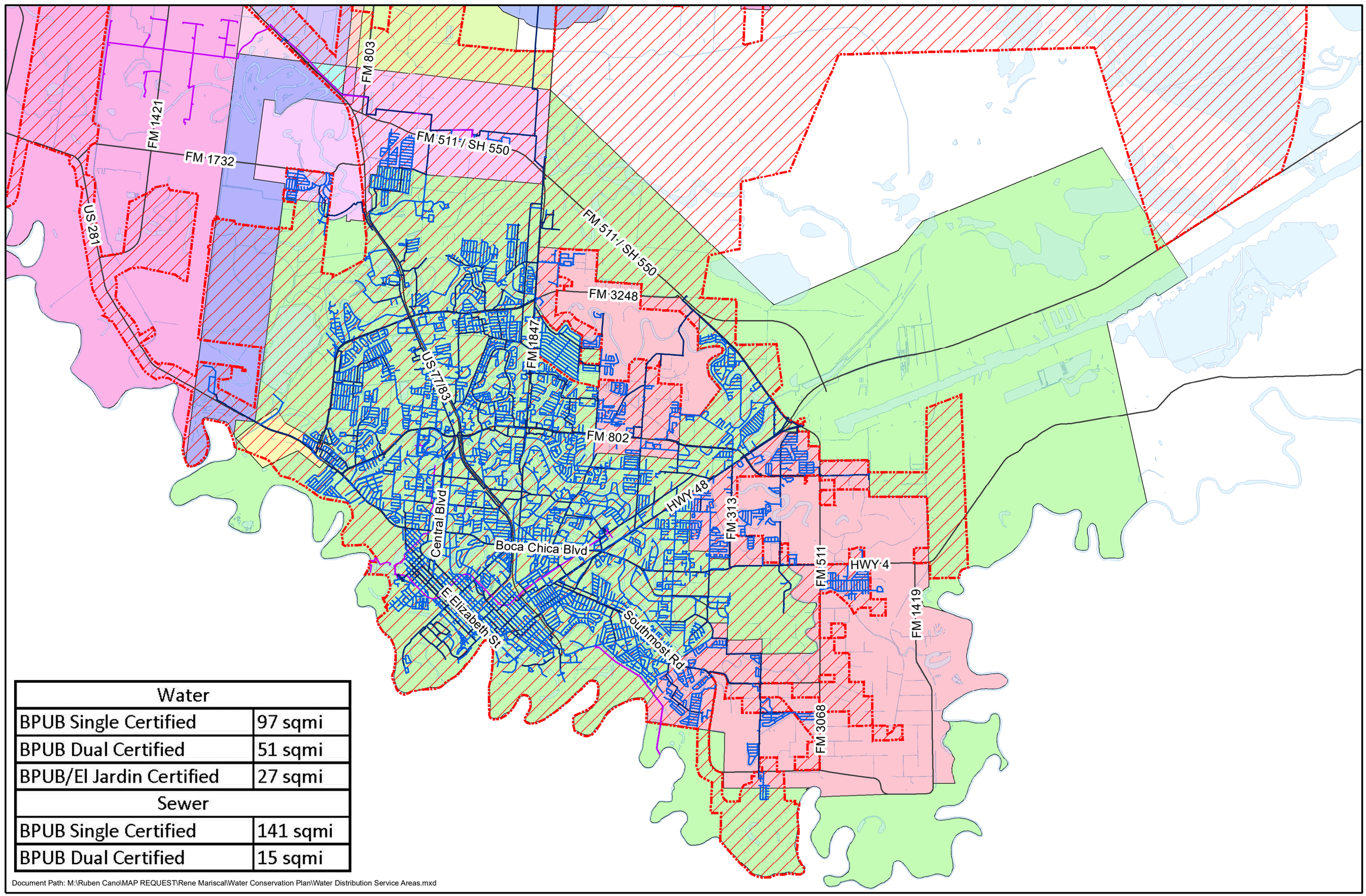
FIGURE 3

BROWNSVILLE PUBLIC UTILITIES BOARD
WATER SYSTEM

# Water Distribution Service Areas




| Water | |
|---|---|
| BPUB Single Certified | 97 sqmi |
| BPUB Dual Certified | 51 sqmi |
| BPUB/El Jardin Certified | 27 sqmi |
| **Sewer** | |
| BPUB Single Certified | 141 sqmi |
| BPUB Dual Certified | 15 sqmi |

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BROWNSVILLE PUBLIC UTILITIES BOARD
GEOGRAPHIC INFORMATION SYSTEMS DEPARTMENT

**Legend**

- City Limits
- Primary Roads
- Resacas/River

**Water Certification Areas**

**UTILITY**

- BPUB
- BPUB/Boca Chica
- BPUB/E Rio Hondo
- BPUB/E Rio Hondo/Olmito
- BPUB/El Jardin
- BPUB/MUD 2
- BPUB/Mil Hwy
- BPUB/Olmito
- Bayview
- Boca Chica
- E Rio Hondo
- E Rio Hondo/Harlingen W
- E Rio Hondo/Los Fresnos
- E Rio Hondo/Olmito
- Harlingen W
- La Feria
- Long Island U D
- Los Fresnos
- MUD 2
- Mil Hwy
- North Alamo
- Olmito
- Rio Hondo
- San Benito
- San Benito/E Rio Hondo
- Santa Rosa
- Sebastian MUD

N
W E
S

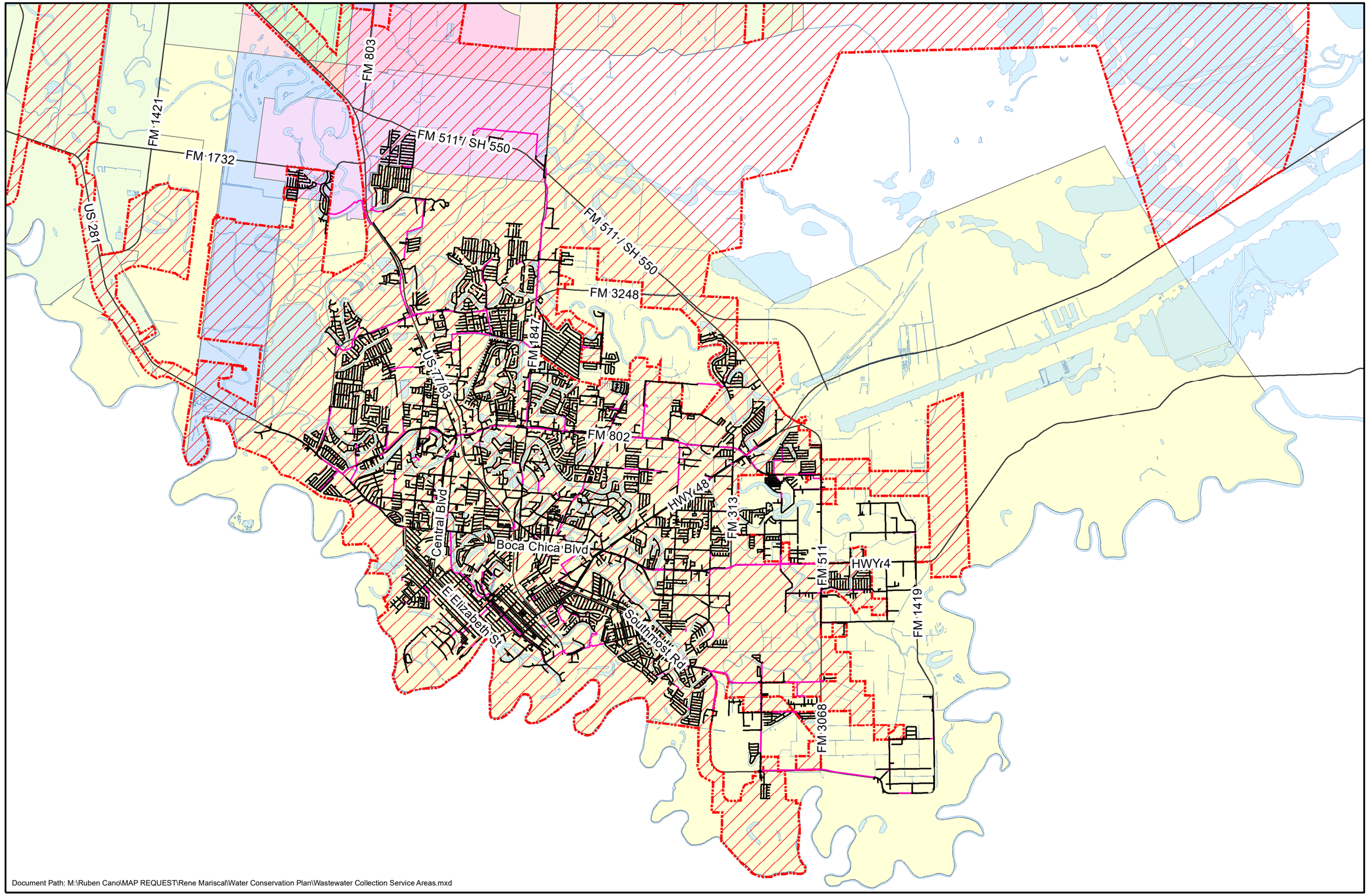
1 inch = 8,000 feet

FIGURE 4

BROWNSVILLE PUBLIC UTILITIES BOARD

WASTEWATER SYSTEM

# Wastewater Collection Service Areas




BROWNSVILLE PUBLIC UTILITIES BOARD

GEOGRAPHIC INFORMATION SYSTEMS DEPARTMENT

**Legend**

- City Limits
- Primary Roads
- Resacas/River

**Waste Water Certification Areas**

**UTILITY**

- BPUB
- BPUB/E Rio Hondo
- BPUB/MUD 2
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- San Benito
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- Sebastian MUD

N W E S

1 inch = 8,000 feet



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# APPENDIX A

# UTILITY PROFILE

Texas Water Development Board

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

## CONTACT INFORMATION

Name of Utility: BROWNSVILLE PUBLIC UTILITIES BOARD

Public Water Supply Identification Number (PWS ID): TX0310001

Certificate of Convenience and Necessity (CCN) Number: 10549

Surface Water Right ID Number: 865-N

Wastewater ID Number: 20217

Contact: First Name: Rene Last Name: Mariscal

Title: Division Manager

Address: 1425 Robinhood City: Brownsville State: TX

Zip Code: 78521 Zip+4: Email: rmariscal@brownsville-pub.com

Telephone Number: 9569836256 Date:

Is this person the designated Conservation Coordinator? ○ Yes ◉ No

Coordinator: First Name: Guadalupe Last Name: Garcia

Title: Water Resources Administrator

Address: 1425 Robinhood City: Brownsville Zip Code: 78521

Email: ggarcia@brownsville-pub.com Telephone Number: 956-983-6561

Regional Water Planning Group: M

Groundwater Conservation District:

Our records indicate that you:

☑ Received financial assistance of $500,000 or more from TWDB

☑ Have 3,300 or more retail connections

☑ Have a surface water right with TCEQ

### A. Population and Service Area Data

1. Current service area size in square miles: 175

Texas Water Development Board

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

Attached file(s):

| File Name | File Description |
|---|---|
| 2024 Water Certification Boundaries.pdf | 2024 Water Certification Boundaries |
| 2024 Wastewater Certification Boundaries.pdf | 2024 Wastewater Certification Boundaries |

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

| Year | Historical Population Served By Retail Water Service | Historical Population Served By Wholesale Water Service | Historical Population Served By Wastewater Water Service |
|---|---|---|---|
| **2023** | 200,457 | 17,074 | 217,531 |
| **2022** | 198,069 | 16,801 | 214,870 |
| **2021** | 194,907 | 14,998 | 209,905 |
| **2020** | 193,041 | 14,745 | 207,786 |
| **2019** | 191,034 | 14,467 | 205,501 |

3. Projected service area population for the following decades.

| Year | Projected Population Served By Retail Water Service | Projected Population Served By Wholesale Water Service | Projected Population Served By Wastewater Water Service |
|---|---|---|---|
| **2030** | 247,009 | 15,797 | 262,806 |
| **2040** | 286,983 | 18,106 | 305,089 |
| **2050** | 330,172 | 20,593 | 350,765 |
| **2060** | 374,323 | 23,150 | 397,473 |
| **2070** | 419,718 | 25,773 | 445,491 |

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

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

Section I A.1: Service area size is for Brownsville Public Utilities Board (BPUB), El Jardin Water Supply Corporation (EJWSC) and a portion of Military Highway Supply Corporation (MHWSC). Water service area map is provided in Water Conservation and Drought and Contingency Plan, Figure 1.

Section I A.2-3: For the projected populations, the water service areas were calculated based on the populations projected in the Texas Water Development Board 2021 Regional Water Plan.

Attached file(s):

| File Name | File Description |
|---|---|
| bpub and ejwsc 2021 regional water plan pop projections 2020-2070.pdf | BPUB and EJWSC 2021 Regional Water Plan Pop Projections 2020-200 |

**B. System Input**

System input data for the previous five years.

Total System Input = Self-supplied + Imported– Exported

| Year | Water Produced in Gallons | Purchased/Imported Water in Gallons | Exported Water in Gallons | Total System Input | Total GPCD |
|---|---|---|---|---|---|
| **2023** | 5,859,833,000 | 2,239,475,000 | 576,766,000 | 7,522,542,000 | 103 |
| **2022** | 5,447,688,000 | 2,162,387,000 | 554,289,691 | 7,055,785,309 | 98 |
| **2021** | 5,124,199,000 | 2,238,159,000 | 583,830,928 | 6,778,527,072 | 95 |
| **2020** | 5,167,139,000 | 2,503,784,000 | 560,092,929 | 7,110,830,071 | 101 |
| **2019** | 4,987,734,000 | 2,539,336,000 | 555,309,091 | 6,971,760,909 | 100 |
| **Historic Average** | 5,317,318,600 | 2,336,628,200 | 566,057,728 | 7,087,889,072 | 99 |

**C. Water Supply System**

1. Designed daily capacity of system in gallons: 49,541,000

2. Storage Capacity

2a. Elevated storage in gallons: 7,000,000

2b. Ground storage in gallons: 14,350,000

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

**D. Projected Demands**

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

| Year | Population | Water Demand (gallons) |
|---|---|---|
| **2025** | 241,043 | 13,145,556,166 |
| **2026** | 245,237 | 13,374,288,843 |
| **2027** | 249,504 | 13,067,001,469 |
| **2028** | 253,846 | 13,843,763,294 |
| **2029** | 258,263 | 14,084,644,776 |
| **2030** | 262,756 | 14,329,717,594 |
| **2031** | 267,328 | 14,579,054,680 |
| **2032** | 271,980 | 14,832,730,231 |
| **2033** | 276,712 | 15,090,819,738 |
| **2034** | 281,527 | 15,353,400,001 |

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

1. Population and water demand projections based on 1.74% growth rate
2. Growth rate of 1.74% is blended rate of BPUB (1.75%) and EJWSC (1.51%)

Attached file(s):

| File Name | File Description |
|---|---|
| bpub and ejwsc 2021 regional water plan pop projections 2020-2070.pdf | BPUB and EJWSC 2021 Regional Water Plan Pop Projections 2020-2070 |
| bpub 2021 regional water plan water demand projections.pdf | BPUB 2021 Regional Water Plan Water Demand Projections |
| ejwsc 2021 regional water plan water demand projections.pdf | EJWSC 2021 Regional Water Plan Water Demand Projections |

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

### E. High Volume Customers

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

| Customer | Water Use Category | Annual Water Use | Treated or Raw |
|---|---|---|---|
| Rich Products Corporation | Industrial | 65,193,000 | Treated |
| TRICO Products Corporation | Industrial | 27,197,000 | Treated |
| Silas Ray Plant | Industrial | 22,371,000 | Treated |
| National Electric Coil | Industrial | 2,832,000 | Treated |

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

| Customer | Water Use Category | Annual Water Use | Treated or Raw |
|---|---|---|---|
| El Jardin Water Supply Corporataion | Municipal | 299,771,000 | Treated |
| Brownsville Navigation District | Municipal | 242,943,000 | Treated |
| La Rusias | Municipal | 34,052,000 | Treated |

### F. Utility Data Comment Section

Additional comments about utility data.

Section I E: Utility data was obtained from 2023 TWDB Water Use Survey.

Texas Water Development Board

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

## Section II: System Data

### A. Retail Water Supplier Connections

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

| Water Use Category Type | Total Retail Connections (Active + Inactive) | Percent of Total Connections |
|---|---|---|
| Residential - Single Family | 50,152 | 75.68 % |
| Residential - Multi-Family | 11,341 | 17.11 % |
| Industrial | 4 | 0.01 % |
| Commercial | 4,379 | 6.61 % |
| Institutional | 395 | 0.60 % |
| Agricultural | 0 | 0.00 % |
| **Total** | 66,271 | 100.00 % |

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

| | Net Number of New Retail Connections | | | | | | |
|---|---|---|---|---|---|---|---|
| **Year** | **Residential - Single Family** | **Residential - Multi-Family** | **Industrial** | **Commercial** | **Institutional** | **Agricultural** | **Total** |
| **2023** | 700 | 0 | 0 | 0 | 0 | 0 | 700 |
| **2022** | 681 | 0 | 0 | 156 | 11 | 0 | 848 |
| **2021** | 753 | 0 | 0 | 151 | 0 | 0 | 904 |
| **2020** | 769 | 0 | 0 | 0 | 6 | 0 | 775 |
| **2019** | 698 | 12 | 0 | 52 | 3 | 0 | 765 |

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

### B. Accounting Data

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

| Year | Residential - Single Family | Residential - Multi-Family | Industrial | Commercial | Institutional | Agricultural | Total |
|---|---|---|---|---|---|---|---|
| **2023** | 3,655,864,000 | 476,523,000 | 117,593,000 | 1,903,403,000 | 294,673,000 | 0 | 6,448,056,000 |
| **2022** | 3,629,124,000 | 490,401,000 | 112,898,000 | 1,812,205,000 | 269,047,000 | 0 | 6,313,675,000 |
| **2021** | 3,616,814,000 | 498,210,000 | 97,570,000 | 1,650,566,000 | 275,316,000 | 0 | 6,138,476,000 |
| **2020** | 3,833,924,000 | 498,728,000 | 83,612,000 | 1,667,014,000 | 304,945,000 | 0 | 6,388,223,000 |
| **2019** | 3,498,220,000 | 475,669,000 | 90,929,000 | 1,711,638,000 | 222,751,000 | 0 | 5,999,207,000 |

### C. Residential Water Use

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

| Year | Total Residential GPCD |
|---|---|
| **2023** | 56 |
| **2022** | 57 |
| **2021** | 58 |
| **2020** | 61 |
| **2019** | 57 |
| **Historic Average** | 58 |

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

**D. Annual and Seasonal Water Use**

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

| Month | Total Gallons of Treated Water | | | | |
|---|---|---|---|---|---|
| | 2023 | 2022 | 2021 | 2020 | 2019 |
| January | 482,039,000 | 474,823,000 | 473,304,000 | 468,394,000 | 442,215,000 |
| February | 473,058,000 | 442,507,000 | 467,155,000 | 452,925,000 | 420,803,000 |
| March | 510,382,000 | 468,084,000 | 490,077,000 | 491,732,000 | 424,642,000 |
| April | 496,363,000 | 515,056,000 | 527,728,000 | 530,936,000 | 440,892,000 |
| May | 490,086,000 | 545,869,000 | 499,378,000 | 587,489,000 | 512,087,000 |
| June | 475,771,000 | 540,937,000 | 481,652,000 | 567,802,000 | 548,136,000 |
| July | 555,659,000 | 589,659,000 | 519,565,000 | 558,733,000 | 531,727,000 |
| August | 630,058,000 | 634,361,000 | 512,588,000 | 537,880,000 | 547,317,000 |
| September | 627,091,000 | 525,297,000 | 574,373,000 | 539,594,000 | 577,511,000 |
| October | 586,905,000 | 500,022,000 | 512,822,000 | 503,095,000 | 493,818,000 |
| November | 518,263,000 | 483,320,000 | 501,271,000 | 546,632,000 | 484,457,000 |
| December | 485,989,000 | 480,835,000 | 481,004,000 | 519,399,000 | 484,673,000 |
| Total | 6,331,664,000 | 6,200,770,000 | 6,040,917,000 | 6,304,611,000 | 5,908,278,000 |

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

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

| Month | Total Gallons of Raw Water | | | | |
|---|---|---|---|---|---|
| | 2023 | 2022 | 2021 | 2020 | 2019 |
| January | | | | | |
| February | | | | | |
| March | | | | | |
| April | | | | | |
| May | | | | | |
| June | | | | | |
| July | | | | | |
| August | | | | | |
| September | | | | | |
| October | | | | | |
| November | | | | | |
| December | | | | | |
| Total | | | | | |

3. Summary of seasonal and annual water use.

| | Summer RETAIL (Treated + Raw) | Total RETAIL (Treated + Raw) |
|---|---|---|
| 2023 | 1,661,488,000 | 6,331,664,000 |
| 2022 | 1,764,957,000 | 6,200,770,000 |
| 2021 | 1,513,805,000 | 6,040,917,000 |
| 2020 | 1,664,415,000 | 6,304,611,000 |
| 2019 | 1,627,180,000 | 5,908,278,000 |
| Average in Gallons | 1,646,369,000.00 | 6,157,248,000.00 |

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

## E. Water Loss

Water Loss data for the previous five years.

| Year | Total Water Loss in Gallons | Water Loss in GPCD | Water Loss as a Percentage |
|---|---|---|---|
| **2023** | 824,373,990 | 11 | 10.96 % |
| **2022** | 618,535,198 | 8 | 9.43 % |
| **2021** | 552,633,873 | 7 | 8.86 % |
| **2020** | 567,599,176 | 8 | 8.58 % |
| **2019** | 801,536,215 | 11 | 12.36 % |
| **Average** | 672,935,690 | 9 | 10.04 % |

## F. Peak Day Use

Average Daily Water Use and Peak Day Water Use for theprevious five years.

| Year | Average Daily Use (gal) | Peak Day Use (gal) | Ratio (peak/avg) |
|---|---|---|---|
| **2023** | 17,347,024 | 18059652 | 1.0411 |
| **2022** | 16,988,410 | 19184315 | 1.1293 |
| **2021** | 16,550,457 | 16454402 | 0.9942 |
| **2020** | 17,272,906 | 18091467 | 1.0474 |
| **2019** | 16,187,063 | 17686739 | 1.0926 |

## G. Summary of Historic Water Use

| Water Use Category | Historic Average | Percent of Connections | Percent of Water Use |
|---|---|---|---|
| **Residential - Single Family** | 3,646,789,200 | 75.68 % | 58.28 % |
| **Residential - Multi-Family** | 487,906,200 | 17.11 % | 7.80 % |
| **Industrial** | 100,520,400 | 0.01 % | 1.61 % |
| **Commercial** | 1,748,965,200 | 6.61 % | 27.95 % |
| **Institutional** | 273,346,400 | 0.60 % | 4.37 % |
| **Agricultural** | 0 | 0.00 % | 0.00 % |

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

### H. System Data Comment Section

Section II C: Residential per capita consumption (gallons per capita per day) was calculated by dividing the residential gallons billed per year by the estimated Brownsville population. The residential multi-family per capita consumption (gallons per capita per day) was calculated by dividing the multi-family per year by the estimated Brownville population.

Section II E: Water losses are calculated as a percentage of retail water sold during the period, and excludes wholesale quantities.

Section II F: Average and peak water uses are based on monthly water sales. Therefore, the peak water use is the highest average daily consumption over a month period. Higher peak flows were recorded over a 24-hour period at the water plants.

## Section III: Wastewater System Data

### A. Wastewater System Data

Attached file(s):

| File Name | File Description |
|---|---|
| WW System Summary 2024.pdf | WW System Summary 2024 |

1. Design capacity of wastewater treatment plant(s) in gallons per day: 27,300,000

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

| Water Use Category | Metered | Unmetered | Total Connections | Percent of Total Connections |
|---|---|---|---|---|
| **Municipal** | 49,524 | 1,817 | 51,341 | 92.30 % |
| **Industrial** | | | 0 | 0.00 % |
| **Commercial** | 4,189 | 93 | 4,282 | 7.70 % |
| **Institutional** | | | 0 | 0.00 % |
| **Agricultural** | | | 0 | 0.00 % |
| **Total** | 53,713 | 1,910 | 55,623 | 100.00 % |

3. Percentage of water serviced by the wastewater system: 99.00 %

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

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

| Month | Total Gallons of Treated Water | | | | |
|---|---|---|---|---|---|
| | 2023 | 2022 | 2021 | 2020 | 2019 |
| January | 450,332,000 | 473,894,000 | 416,766,000 | 415,353,000 | 425,629,000 |
| February | 402,119,000 | 443,268,000 | 379,183,000 | 390,278,000 | 387,527,000 |
| March | 452,632,000 | 463,995,000 | 426,611,000 | 423,277,000 | 443,028,000 |
| April | 463,019,000 | 456,683,000 | 425,670,000 | 406,024,000 | 427,303,000 |
| May | 517,310,000 | 509,044,000 | 488,031,000 | 436,217,000 | 446,643,000 |
| June | 484,874,000 | 453,297,000 | 460,588,000 | 462,581,000 | 454,933,000 |
| July | 467,146,000 | 451,126,000 | 576,148,000 | 473,497,000 | 473,669,000 |
| August | 467,424,000 | 465,531,000 | 487,424,000 | 468,962,000 | 448,765,000 |
| September | 440,893,000 | 456,228,000 | 448,365,000 | 486,986,000 | 446,167,000 |
| October | 472,647,000 | 450,557,000 | 510,533,000 | 441,814,000 | 449,873,000 |
| November | 481,948,000 | 493,413,000 | 459,361,000 | 412,023,000 | 408,449,000 |
| December | 471,061,000 | 465,888,000 | 473,322,000 | 422,612,000 | 418,946,000 |
| Total | 5,571,405,000 | 5,582,924,000 | 5,552,002,000 | 5,239,624,000 | 5,230,932,000 |

5. Could treated wastewater be substituted for potable water?

( ) Yes (•) No

**B. Reuse Data**

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

| Type of Reuse | Total Annual Volume (in gallons) |
|---|---|
| On-site Irrigation | |
| Plant wash down | 176,508,600 |
| Chlorination/de-chlorination | 5,500,000 |
| Industrial | |
| Landscape irrigation (park,golf courses) | 0 |
| Agricultural | |
| Discharge to surface water | |
| Evaporation Pond | |
| Other | |
| Total | 182,008,600 |

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

**C. Wastewater System Data Comment**

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

Section III A: The BPUB wastewater system consists of two wastewater treatment plants, 178 lift stations, 482 miles of sanitary sewer lines, and 692 miles of force mains. The two plants, the Robindale (North) Wastewater Treatment Plant and the South Wastewater Treatment Plant, have a combined treatment capacity of 27.3 mgd. The Robindale Plant with a capacity of 14.5 mgd discharges into San Martin Lake. The South Plant has a capacity of 12.8 mgd and discharges into the Rio Grande. The wastewater system includes a large number of lift stations because of flat topography.

Attached file(s):

| File Name | File Description |
|---|---|
| WW System Summary 2024.pdf | WW System Summary 2024 |

# Public Utility Commission of Texas

## By These Presents Be It Known To All That

BROWNSVILLE PUBLIC UTILITIES BOARD

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

## Certificate of Convenience and Necessity

numbered 10549 , to provide water utility service to that service area or those service areas designated by final Order or Orders duly entered by this Commission, which Order or Orders are on file at the Commission offices in Austin, Texas; and are matters of official record available for public inspection; and be it known further that these presents do evidence the authority and the duty of this Grantee to provide such utility service in accordance with the laws of this State and the Rules of this Commission, subject only to any power and responsibility of this Commission to revoke or amend this Certificate in whole or in part upon a subsequent showing that the public convenience and necessity would be better served thereby.

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

Philip F. Ricketts
SECRETARY OF THE COMMISSION

# APPENDIX B

# 5- AND 10-YR WATER SAVINGS GOALS

Texas Water Development Board

# 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 |
|---|---|---|
| 7,522,542,000 | 200,457 | 103 |

[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 |
|---|---|---|
| 4,132,387,000 | 200,457 | 56 |

[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 |
|---|---|---|---|
| 824,373,990 | 200,457 | 11 | 10.96% |

[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 2024 | 105 | 103 | 60 | 56 | 12 | 11 | 11.43 % | 10.96 % |
| Ten-year Target Date 2029 | 98 | 103 | 55 | 56 | 12 | 11 | 12.24 % | 10.96 % |

# APPENDIX C

# WATER AND WASTEWATER RATES

Sec. 102-106. - Deposit.

(a) The deposit for residential service shall be $50.00 for water service or any combination of electric, water or wastewater (sanitary sewer) services.

(b) The deposit for nonresidential services shall be an amount equal to the charges for an average two-month period unless the applicant complies with rules and regulations concerning credit as established by the public utilities board. The minimum deposit for nonresidential water service shall be $50.00.

(Code 1971, § 34-41; Ord. No. 94-983-J, § 1, 11-2-1994)

Sec. 102-107. - Connection charge.

The charges to be made for tapping existing water and sewer mains and extension of water and sewer service to the user's property line, for the installation of all connections and appurtenances and for the installation of water meters, shall be at actual cost thereof. Such charges shall be calculated, charged and collected in advance.

(Code 1971, § 34-42)

Sec. 102-108. - Monthly charges.

The rates to be charged by the public utilities board for furnishing water and services in connection therewith shall be calculated, charged and collected monthly from the various classified users thereof according to the rate schedules set out in this division.

(Code 1971, § 34-43)

Sec. 102-109. - Types and terms of service.

The types and terms of water service available under the rate schedules established by this division are described in and are subject to the standard terms and conditions promulgated by the public utilities board, and the terms and conditions are incorporated in this division by reference.

(Code 1971, § 34-44)

Sec. 102-110. - Applicability of retail water service inside city.

The rate for water furnished to premises inside the city is applicable to all water furnished by the public utilities board through the municipal water mains adjacent to the premises of a customer located within the city.

(Code 1971, § 34-45)

Sec. 102-111. - Rate for retail water service inside city.

(a) The rates are applicable to water customers with metered water service. The rates to be charged and collected from retail customers located inside the city for metered water service furnished or the availability of metered water by the public utilities board are equal to the sum of the charges and rates itemized in this subsection and fixed as follows:

(1) *Customer service charge.* The customer service charge is as follows:

| *Meter Size (inches)* | *Effective June 1, 2022* | *Effective Jan. 1, 2023* | *Effective Jan. 1, 2024* | *Effective Jan. 1, 2025* | *Effective Jan. 1, 2026* |
|---|---|---|---|---|---|
| ¾" or less | $13.02 | $14.06 | $14.90 | $15.50 | $16.28 |
| 1" | 24.44 | 26.39 | 27.97 | 29.10 | 30.56 |
| 1.5" | 40.54 | 43.78 | 46.39 | 48.26 | 50.69 |
| 2" | 64.24 | 69.37 | 73.51 | 76.47 | 80.32 |
| 3" | 148.66 | 160.54 | 170.13 | 176.98 | 185.88 |
| 4" | 226.45 | 244.53 | 259.14 | 269.58 | 283.15 |
| 6" | 435.49 | 470.28 | 498.37 | 518.44 | 544.53 |
| 8" | 683.05 | 737.61 | 781.68 | 813.16 | 854.08 |
| 10" | 1,005.95 | 1,086.30 | 1,151.20 | 1,197.56 | 1,257.83 |

(2) *General water service.* The rates for general water service are as follows:

| *Volume Charges ($/1,000 gallons)* | *Effective June 1, 2022* | *Effective Jan. 1, 2023* | *Effective Jan. 1, 2024* | *Effective Jan. 1, 2025* | *Effective Jan. 1, 2026* |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| **Residential:** | | | | | |
| Block 1: 0—3,000 gallons | 2.14 | 2.31 | 2.45 | 2.55 | 2.67 |
| Block 2: 3,001—9,000 gallons | 2.37 | 2.55 | 2.71 | 2.82 | 2.96 |
| Block 3: 9,001—16,000 gallons | 2.92 | 3.15 | 3.34 | 3.47 | 3.65 |
| Block 4: Over 16,000 gallons | 4.41 | 4.76 | 5.04 | 5.25 | 5.51 |
| **Non-residential:** | | | | | |
| All volumes | 2.82 | 3.04 | 3.23 | 3.36 | 3.52 |

(3) *Definitions.* The term "residential" as used in this subsection shall mean service to a "single-family dwelling" as that phrase is defined in section 1.2.22 of the electric, water, and wastewater service policies adopted by the public utilities board in effect or as may be amended from time to time, such policies being incorporated by reference into this subsection pursuant to section 102-109. The term "nonresidential" shall mean service that does not qualify as residential, wholesale, fire support, or temporary services, and specifically includes service to "single-family attached dwellings" as defined in section 1.2.22 of the policies adopted by the public utilities board.

(4) *Minimum monthly bill.* The minimum monthly bill shall be equal to the customer service charge and any other taxes, surcharges, charges and/or adjustments required by this chapter.

(b) These rates are applicable to water customers with no metered water service. The rates to be charged and collected from retail customers located inside the city for non-metered water service or the availability of non-metered water by the public utilities board are equal to the sum of the charges and rates itemized in this subsection and fixed as follows:

| Non-Metered Service ($ per living unit) | Effective June 1, 2022 | Effective Jan. 1, 2023 | Effective Jan. 1, 2024 | Effective Jan. 1, 2025 | Effective Jan. 1, 2026 |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| (1) Single-family, including single-family dwellings and mobile homes on individual lots | $36.59 | $39.52 | $41.89 | $43.57 | $45.75 |
| (2) Duplexes, triplexes and quadruplexes, including duplexes, triplexes and quadruplexes that are condominiums, on individual lots only where the individual tenant pays the bill | 36.59 | 39.52 | 41.89 | 43.57 | 45.75 |
| (3) Multifamily, including apartments, townhouses, condominiums, rooming houses, mobile home parks and like facilities, only where the individual tenant pays the bill | 36.59 | 39.52 | 41.89 | 43.57 | 45.75 |
| (4) Duplexes, triplexes and quadruplexes, including duplexes, triplexes, and quadruplexes that are condominiums, on individual lots only where the individual tenant does not pay the bill | $36.59 | 39.52 | 41.89 | 43.57 | 45.75 |

| | | | | | |
|---|---|---|---|---|---|
| (5) Multifamily, including apartments, townhouses, condominiums, rooming houses, mobile home parks and like facilities, only where the individual tenant does not pay the bill | 36.59 | 39.52 | 41.89 | 43.57 | 45.75 |
| (6) Sanitary sewer customers with metered water service. Rates for sanitary sewer condominiums, rooming house, mobile home parks, and like facilities, only where the individual tenant pays the bill per month, per living unit: 16.67 | | | | | |

(Code 1971, § 34-46; Ord. No. 94-983-J, § 2, 11-2-1994; Ord. No. 95-983-M, § 1, 11-21-1995; Ord. No. 96-983-N, § 1, 2-6-1996; Ord. No. 96-983-P, § 1, 12-18-1996; Ord. No. 97-983-Q, § 1, 12-17-1997; Ord. No. 98-983-R(B), § 1, 10-6-1998; Ord. No. 99-983-W, § 1, 12-1-1999; Ord. No. 2002-983-Y, § 1, 3-26-2002; Ord. No. 2005-983-Z, § 5, 7-5-2005; Ord. No. 2007-983-AA, § 1, 2-20-2007; Ord. No. 2012-1569, § 2, 12-17-2012; Ord. No. 2022-1701, Exh. A, 5-3-2022)

Sec. 102-112. - Applicability of retail water service outside city.

The rate for water furnished to premises outside the city is applicable to all water furnished by the public utilities board through municipal water mains adjacent to the premises of a customer located outside the city.

(Code 1971, § 34-47)

Sec. 102-113. - Rate for retail water service outside city.

The rates to be charged and collected from retail customers located outside the city for water furnished or the availability of water by the public utilities board are equal to the sum of the charges and rates itemized in this section and fixed as follows:

(1) *Customer service charge.* The customer service charge is as follows:

(a) Residential customers:

| Meter Size (inches) | Effective June 1, 2022 | Effective Jan. 1, 2023 | Effective Jan. 1, 2024 | Effective Jan. 1, 2025 | Effective Jan. 1, 2026 |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| ¾" or less | $19.57 | $21.14 | $22.41 | $23.31 | $24.48 |
| 1" | 36.65 | 39.59 | 41.96 | 43.65 | 45.84 |
| 1.5" | 60.79 | 65.67 | 69.62 | 72.41 | 76.05 |
| 2" | 96.34 | 104.07 | 110.32 | 114.75 | 120.51 |
| 3" | 223.13 | 241.03 | 255.51 | 265.78 | 279.12 |
| 4" | 339.79 | 367.05 | 389.10 | 404.72 | 425.04 |
| 6" | 653.54 | 705.97 | 748.39 | 778.44 | 817.51 |
| 8" | 1,025.02 | 1,107.25 | 1,173.77 | 1,220.91 | 1,282.19 |
| 10" | 1,509.53 | 1,630.63 | 1,728.59 | 1,798.01 | 1,888.26 |

(b) Non-residential customers:

| Meter Size (inches) | Effective June 1, 2022 | Effective Jan. 1, 2023 | Effective Jan. 1, 2024 | Effective Jan. 1, 2025 | Effective Jan. 1, 2026 |
|---|---|---|---|---|---|
| ¾" or less | $19.57 | $21.14 | $22.41 | $23.31 | $24.48 |
| 1" | 24.38 | 26.33 | 27.90 | 29.02 | 30.48 |
| 1.5" | 40.45 | 43.68 | 46.29 | 48.15 | 50.57 |
| 2" | 64.09 | 69.21 | 73.35 | 76.30 | 80.14 |
| 3" | 148.45 | 160.31 | 169.89 | 176.73 | 185.62 |
| 4" | 226.06 | 244.12 | 258.70 | 269.12 | 282.66 |
| 6" | 434.80 | 469.54 | 497.59 | 517.62 | 543.67 |

| | | | | | |
|---|---|---|---|---|---|
| 8" | 681.95 | 736.42 | 780.42 | 811.84 | 852.70 |
| 10" | 1,004.29 | 1,084.51 | 1,149.31 | 1,195.59 | 1,255.75 |

(2) General water service. The rates for general water service are as follows:

| Volume Charges ($/1,000 gallons) | Effective June 1, 2022 | Effective Jan. 1, 2023 | Effective Jan. 1, 2024 | Effective Jan. 1, 2025 | Effective Jan. 1, 2026 |
|---|---|---|---|---|---|
| **Residential:** | | | | | |
| Block 1: 0—3,000 gallons | $3.21 | $3.46 | $3.67 | $3.82 | $4.01 |
| Block 2: 3,001—9,000 gallons | 3.55 | 3.84 | 4.07 | 4.23 | 4.44 |
| Block 3: 9,001—16,000 gallons | 4.37 | 4.72 | 5.01 | 5.21 | 5.47 |
| Block 4: Over 16,000 gallons | 6.61 | 7.14 | 7.57 | 7.87 | 8.26 |
| **Non-residential:** | | | | | |
| All volumes | 4.23 | 4.57 | 4.85 | 5.04 | 5.29 |

(3)

*Definitions.* The term "residential" as used in this subsection shall mean service to a "single-family dwelling" as that term is defined in section 1.2.22 of the electric, water, and wastewater service policies adopted by the public utilities board in effect or as may be amended from time to time, such policies being incorporated by reference into this section pursuant to section 102-109. The term "nonresidential" shall mean service that does not qualify as residential, wholesale, fire support, or temporary services, and specifically includes service to "single-family attached dwellings" as defined in section 1.2.22 of the policies adopted by the public utilities board.

(4) *Minimum monthly bill.* The minimum monthly bill shall be equal to the customer service charge and any other taxes, surcharges, charges and/or adjustments required by this chapter.

(Code 1971, § 34-48; Ord. No. 94-983-J, § 3, 11-2-1994; Ord. No. 95-983-M, § 2, 11-21-1995; Ord. No. 96-983-P, § 2, 12-18-1996; Ord. No. 97-983-Q, § 2, 12-17-1997; Ord. No. 98-983-R(B), § 2, 10-6-1998; Ord. No. 99-983-W, § 2, 12-1-1999; Ord. No. 2002-983-Y, § 2, 3-26-2002; Ord. No. 2005-983-Z, § 6, 7-5-2005; Ord. No. 2012-1569, § 2, 12-17-2012; Ord. No. 2022-1701, Exh. A, 5-3-2022)

Sec. 102-114. - Wholesale water service rate.

(a) Generally. Except as provided in subsections (b) and (c) of this section, the rates to be charged and collected from customers who have a wholesale water contract with the public utilities board for the purchase of water for resale are equal to the sum of the charges and rates itemized and fixed as follows:

(1) The customer service charge is as follows:

| Meter Size (inches) | Effective June 1, 2022 | Effective Jan. 1, 2023 | Effective Jan. 1, 2024 | Effective Jan. 1, 2025 | Effective Jan. 1, 2026 |
|---|---|---|---|---|---|
| ¾" or less | $13.02 | $14.06 | $14.90 | $15.50 | $16.28 |
| 1" | 24.44 | 26.39 | 27.97 | 29.10 | 30.56 |
| 1.5" | 40.54 | 43.78 | 46.39 | 48.26 | 50.69 |
| 2" | 64.24 | 69.37 | 73.51 | 76.47 | 80.32 |
| 3" | 148.66 | 160.54 | 170.13 | 176.98 | 185.88 |
| 4" | 226.45 | 244.53 | 259.14 | 269.58 | 283.15 |
| 6" | 435.49 | 470.28 | 498.37 | 518.44 | 544.53 |

| | | | | | |
|---|---|---|---|---|---|
| 8" | 683.05 | 737.61 | 781.68 | 813.16 | 854.08 |
| 10" | 1,005.95 | 1,086.30 | 1,151.20 | 1,197.56 | 1,257.83 |

(2) The wholesale general rate per 1,000 gallons without raw water credit is:

| Volume Charges ($/1,000 gallons) | Effective June 1, 2022 | Effective Jan. 1, 2023 | Effective Jan. 1, 2024 | Effective Jan. 1, 2025 | Effective Jan. 1, 2026 |
|---|---|---|---|---|---|
| All volumes | $2.51 | $2.71 | $2.87 | $2.98 | $3.13 |

(3) The minimum monthly bill shall be equal to the customer service charge and any other taxes surcharges, charges and/or adjustments required by this chapter.

(b) *El Jardin Water Supply Corporation.* The rates to be charged and collected from the El Jardin Water Supply Corporation are established pursuant to the settlement agreement and exclude monthly service charges. The rate per 1,000 gallons includes credit for raw water. The rate per 1,000 gallons is:

Effective upon passage .....$2.92

Effective January 1, 2023 .....3.15

Effective January 1, 2024 .....3.34

Effective January 1, 2025 .....3.47

Effective January 1, 2026 .....3.65

(c) *Brownsville Navigation District.* The rates to be charged and collected from the Brownsville Navigation District shall be the general rate specified in subsection (a) of this section. However, pursuant to paragraph 2(a) of the contract, dated December 15, 1993, between the Brownsville Navigation District of Cameron County Texas and the public utilities board, commencing upon the effective date of the general rate, the public utilities board shall credit billings for potable water sales to the Brownsville Navigation District by a specified amount per 1,000 gallons of treated water delivered by the public utilities board to the Brownsville Navigation District. The specified amount of the credit shall be equal to 10.84 percent of the commodity rate per 1,000 gallons of

water for the Brownsville Navigation District as specified in subsection (a) of this section. No credit is allowed the Brownsville Navigation District for water pumped by the public utilities board for the Brownsville Navigation District's use during a time period when the Rio Grande watermaster is not charging the diversion of water against the public utilities board's water account (no-charge pumping) or when the public utilities board must request releases of water from storage in Falcon Reservoir to satisfy the demands of the Brownsville Navigation District and other public utilities board customers. If no-charge pumping is in effect or if the public utilities board must request release of water from Falcon Reservoir for a part of the billing period, the Brownsville Navigation District shall receive a credit for the pro rata amount of water treated and delivered from the Rio Grande by the public utilities board when no-charge pumping or requested releases from Falcon Reservoir were not in effect.

(Code 1971, § 34-50; Ord. No. 94-983-J, § 4, 11-2-1994; Ord. No. 95-983-M, § 3, 11-21-1995; Ord. No. 96-983-P, § 3, 12-18-1996; Ord. No. 97-983-Q, § 3, 12-17-1997; Ord. No. 98-983-R(B), § 3, 10-6-1998; Ord. No. 99-983-W, § 3, 12-1-1999; Ord. No. 2002-983-Y, § 3, 3-26-2002; Ord. No. 2005-983-Z, § 7, 7-5-2005; Ord. No. 2012-1569, § 2, 12-17-2012; Ord. No. 2022-1701, Exh. A, 5-3-2022; Ord. No. 2022-1569-C, § 1, 8-16-2022)

Sec. 102-115. - Applicability of fire support services

The rate for water furnished for fire protection purposes, such as private fire lines or sprinkler systems, is applicable to all water connections made to the public utilities board water system.

(Code 1971, § 34-51; Ord. No. 94-983-J, § 5, 11-2-1994; Ord. No. 95-983-M, § 4, 11-21-1995)

Sec. 102-116. - Rate for fire support services.

The rates to be charged and collected per month from those customers who have fire support services shall be fixed as follows:

| Connection Size (inches) | Effective June 1, 2022 | Effective Jan. 1, 2023 | Effective Jan. 1, 2024 | Effective Jan. 1, 2025 | Effective Jan. 1, 2026 |
|---|---|---|---|---|---|
| **Inside the city:** | | | | | |
| 4" | $11.00 | $11.90 | $12.60 | $13.10 | $13.75 |
| 6" | 32.10 | 34.65 | 36.75 | 38.20 | 40.10 |
| 8" | 68.30 | 73.75 | 78.15 | 81.30 | 85.35 |

| | | | | | |
|---|---|---|---|---|---|
| 10" | 122.90 | 132.75 | 140.70 | 146.35 | 153.65 |
| 12" | 218.80 | 236.30 | 250.50 | 260.50 | 273.55 |
| **Outside the City** | | | | | |
| 4" | $16.55 | $17.87 | $18.94 | $19.70 | $20.69 |
| 6" | 48.10 | 51.95 | 55.07 | 57.27 | 60.13 |
| 8" | 102.49 | 110.69 | 117.33 | 122.02 | 128.12 |
| 10" | 184.30 | 199.04 | 210.98 | 219.42 | 230.39 |
| 12" | 328.18 | 354.43 | 375.70 | 390.73 | 410.27 |
| **Inside the city:** | | | | | |
| All volumes | 2.82 | 3.05 | 3.23 | 3.36 | 3.53 |
| **Outside the city:** | | | | | |
| All volumes | 4.20 | 4.55 | 4.80 | 5.00 | 5.25 |

(Code 1971, § 34-52; Ord. No. 94-983-J, § 6, 11-2-1994; Ord. No. 95-983-M, § 5, 11-21-1995; Ord. No. 96-983-P, § 4, 12-18-1996; Ord. No. 97-983-Q, § 4(34-52), 12-17-1997; Ord. No. 2011-983-CC, § 1, 8-2-2011; Ord. No. 2012-1569, § 2, 12-17-2012; Ord. No. 2022-1701, Exh. A, 5-3-2022)

Sec. 102-117. - Fire support services connections.

(a) The customer shall pay to the public utilities board the actual cost of making the connections required for fire support services.

(b) The use of water furnished through a fire support connection for any other purpose is prohibited. The fire lines connected to a fire support connection shall not be connected in any way with the customer's metered water system.

(Code 1971, § 34-53)

Sec. 102-118. - Applicability of temporary water service.

Temporary water service is applicable to customers requiring service for only a short period of time. The public utilities board reserves the right to furnish such service only when proper equipment and water system facilities are available at the location and when conditions set out in this section and in section 102-119 are met. It is not applicable for service to recurring seasonal loads.

(Code 1971, § 34-54)

Sec. 102-119. - Temporary water service rate.

(a) Where temporary water service is available without additional cost to the public utilities board, the consumption will be billed at the applicable standard rate, but in no case will the minimum charge be less than the greater of $15.00 or the standard monthly minimum charge.

(b) Where it is necessary to set a meter or provide additional facilities, the customer will be charged the total cost of installing and removing the equipment. An advance deposit will be required, sufficient to cover the estimated consumption for at least a week or for the full duration of service if less than a week, together with the estimated cost of installing and removing the equipment. The consumption will be billed at the applicable standard rate, but in no case will the minimum charge be less than the greater of $15.00 or the standard monthly minimum charge.

(Code 1971, § 34-55)

Sec. 102-120. - Water used for city purposes.

(a) *Rate.* The charge for water furnished by the public utilities board to the city for city purposes shall be in accordance with section 102-111 pertaining to the rate for retail water service inside the city.

(b) *Fire hydrant support charges.* The charge for fire hydrant maintenance will be $5,308.83 per month.

(Code 1971, § 34-62; Ord. No. 94-983-J, § 7, 11-2-1994)

Secs. 102-121—102-145. - Reserved.

Sec. 102-146. - Monthly charges.

The rates to be charged by the public utilities board for furnishing sanitary sewer service shall be calculated, charged and collected monthly from the various classified users thereof according to the rate schedules set out in this division.

(Code 1971, § 34-68)

Sec. 102-147. - Types and terms of service; deposit.

(a) The types and terms of wastewater (sanitary sewer) service available under the rates established by this division are described in and are subject to the standard terms and conditions promulgated by the public utilities board, and the terms and conditions are incorporated in this division by reference.

(b) The deposit for residential service will be $50.00 for wastewater service or any combination of electric, water or wastewater services. The deposit for nonresidential services shall be an amount equal to the charges for an average two-month period unless the applicant complies with rules and regulations concerning credit as established by the public utilities board. The minimum deposit for nonresidential wastewater services shall be $50.00. No deposit shall be required for nonresidential wastewater services if the applicant has applied and paid a deposit for nonresidential water services.

(Code 1971, § 34-69; Ord. No. 94-983-J, § 8, 11-2-1994)

Sec. 102-148. - Applicability of sanitary sewer service inside city.

The rate for sanitary sewer service inside the city is applicable to all sanitary sewer service furnished by the public utilities board through municipal sewer lines adjacent to the premises of a customer located within the city.

(Code 1971, § 34-70)

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Sec. 102-149. - Rate for sanitary sewer service inside city.

There is established a schedule of monthly rates and charges for the use of or availability for the use of sanitary sewer collection, treatment and disposal services which in part is based on the amount of water used from the city's water system. Sanitary sewer service charges shall be billed to and shall be the responsibility of the customer responsible for paying the water bill at any specific location. However, if a water customer of the public utilities board is not connected to the city's sanitary sewer collection system and is not otherwise subject to sanitary sewer services, such water customer shall not be charged for sanitary sewer service usage. The rates to be charged and collected per month from customers that have sanitary sewer service are equal to the sum of the charges and rates itemized and fixed as follows:

(1) Sanitary sewer customers with metered water service. Rates for sanitary sewer customers with metered water service are as follows:

a. Rate. The rate is as follows:

1. Customer service charge ($/month):

| Meter Size inches) | Effective June 1, 2022 | Effective Jan. 1, 2023 | Effective Jan. 1, 2024 | Effective Jan. 1, 2025 | Effective Jan. 1, 2026 |
|---|---|---|---|---|---|
| ¾" or less | $8.15 | $8.88 | $9.68 | $10.07 | $10.57 |
| 1" | 14.27 | 15.55 | 16.95 | 17.64 | 18.51 |
| 1.5" | 24.47 | 26.66 | 29.07 | 30.24 | 31.74 |
| 2" | 38.53 | 41.98 | 45.76 | 47.60 | 49.97 |
| 3" | 88.39 | 96.30 | 104.98 | 109.21 | 114.63 |
| 4" | 149.58 | 162.97 | 177.66 | 184.81 | 193.99 |
| 6" | 259.49 | 282.74 | 308.21 | 320.62 | 336.54 |
| 8" | 436.26 | 475.34 | 518.16 | 539.04 | 565.81 |
| 10" | 705.96 | 769.19 | 838.48 | 872.27 | 915.58 |

2. Volume charges ($/1,000 gallons):

| Volume Charges ($/1,000 gallons) | Effective June 1, 2022 | Effective Jan. 1, 2023 | Effective Jan. 1, 2024 | Effective Jan. 1, 2025 | Effective Jan. 1, 2026 |
|---|---|---|---|---|---|
| **Residential:** | | | | | |
| Block 1: 0—7,000 gallons | $3.74 | $4.08 | $4.44 | $4.62 | $4.85 |

| | | | | | |
|---|---|---|---|---|---|
| Block 2: Over 7,0000 gallons | 4.10 | 4.47 | 4.87 | 5.06 | 5.32 |
| **Non-residential:** | | | | | |
| All volumes | 4.10 | 4.47 | 4.87 | 5.06 | 5.32 |

b. Minimum monthly bill. The minimum monthly bill shall be equal to the customer service charge and any other taxes, surcharges and/or adjustments required by this chapter.

(2) *Large sewage volume contract customer.* The large sewage volume contract is applicable to customers with a minimum sewage volume of 14.25 million gallons of sewage, based upon 95 percent of the water meter reading, per month at one site. The customer is required to have a nonstandard service agreement approved by the public utilities board. Rates are as follows:

a. The customer service charge (dollars/month) is based on the actual water meter size as set forth in subsection (1) of this section.

b. Charge for all volumes per 1,000 gallons:

Effective October 1, 2013 .....$3.17

Effective October 1, 2014 .....3.30

c. Minimum monthly charge, if sewage volume is less than 14.25 million gallons per month, per month .....30,975.00

Effective October 1, 2013 .....45,175.00

Effective October 1, 2014 .....47,025.00

(3) *Calculation of sanitary sewage volume.* Sanitary sewage volume calculation is as follows:

a. *Residential dwellings.* For residential dwellings, including single-family dwellings and mobile homes on individual lots, the sanitary sewage volume shall be based on 80 percent of the metered water consumption.

b. *Duplexes, triplexes and quadruplexes on individual lots.* For duplexes, triplexes and quadruplexes on individual lots the sanitary sewage volume shall be based on 80 percent of the metered water consumption up to a maximum of 20,000 gallons of water per living unit.

c.

*Multifamily.* For multifamily uses, including apartments, townhouses, condominiums, rooming houses, mobile home parks and like facilities, the sanitary sewage volume shall be based on 80 percent of the metered water consumption up to a maximum of 15,000 gallons of water per living unit or mobile home space. The number of units to be used for calculating the maximum charges shall be 90 percent of the actual number of living units or mobile home spaces raised to the nearest whole number.

d. *Nonresidential.* The sanitary sewage volume for nonresidential uses shall be based on 95 percent of the metered water consumption.

e. *Customer with second water meter.* A customer having a second water meter for water usage that is not returned to the sanitary sewer system shall be charged a sanitary sewage rate for 100 percent of the metered water consumption for the water meter supplying general water and sanitary sewer services.

(4) Sanitary sewer customers with no metered water service. Rates for sanitary sewer customers with no metered water service are as follows:

| Non-Metered Service ($ per living unit) | *Effective June 1, 2022* | *Effective Jan. 1, 2023* | *Effective Jan. 1, 2024* | *Effective Jan. 1, 2025* | *Effective Jan. 1, 2026* |
|---|---|---|---|---|---|
| a. Single-family, including single-family dwellings and mobile homes on individual lots | 38.43 | 41.89 | 45.66 | 47.49 | 49.86 |
| b. Duplexes, triplexes and quadruplexes, including duplexes, triplexes and quadruplexes that are condominiums, on individual lots only where the individual tenant does not pay the bill | 38.43 | 41.89 | 45.66 | 47.49 | 49.86 |

| | | | | | |
|---|---|---|---|---|---|
| c. Duplexes, triplexes and quadruplexes, including duplexes, triplexes and quadruplexes that are condominiums, on individual lots only where the individual tenant pays the bill | 38.43 | 41.89 | 45.66 | 47.49 | 49.86 |
| d. Multifamily, including apartments, townhouses, condominiums, rooming houses, mobile home parks and like facilities, only where the individual tenant does not pay the bill | 38.43 | 41.89 | 45.66 | 47.49 | 49.86 |
| e. Multifamily, including apartments, townhouses, condominiums, rooming houses, mobile home parks and like facilities, only where the individual tenant pays the bill | 38.43 | 41.89 | 45.66 | 47.49 | 49.86 |
| f. Non-residential. Sanitary sewage quantities shall be estimated on an individual basis to determine the monthly charge. Sanitary sewage meters may be required to determine the actual volume of sewage. | | | | | |

(Code 1971, § 34-75.1; Ord. No. 2022-1701, Exh. A, 5-3-2022)

Sec. 102-151. - Rate for sanitary sewer services outside city.

There is established a schedule of monthly rates and charges for the use of or availability for the use of sanitary sewer collection, treatment and disposal services outside the city which in part is based on the amount of water used from the city's water system. Sanitary sewer service charges shall be billed to and shall be the responsibility of the customer responsible for paying the water bill at any specific location.

However, if a water customer of the public utilities board is not connected to the city's sanitary sewer collection system and is not otherwise subject to sanitary sewer services, such water customer shall not be charged for sanitary sewer service usage. The rates to be charged and collected per month from customers that have sanitary sewer service are equal to the sum of the charges and rates itemized and fixed as follows:

(1) Rate. The rate is as follows:

a. Customer service charge ($/month):

| Meter Size (inches) | Effective June 1, 2022 | Effective Jan. 1, 2023 | Effective Jan. 1, 2024 | Effective Jan. 1, 2025 | Effective Jan. 1, 2026 |
|---|---|---|---|---|---|
| ¾" or less | $12.23 | $13.33 | $14.53 | $15.11 | $15.87 |
| 1" | 21.45 | 23.38 | 25.49 | 26.50 | 27.84 |
| 1.5" | 36.73 | 40.04 | 43.64 | 45.38 | 47.67 |
| 2" | 57.81 | 63.01 | 68.69 | 71.43 | 75.02 |
| 3" | 132.66 | 144.59 | 157.60 | 163.89 | 172.14 |
| 4" | 224.48 | 244.67 | 266.69 | 277.34 | 291.29 |
| 6" | 389.42 | 424.45 | 462.65 | 481.12 | 505.32 |
| 8" | 654.69 | 713.57 | 777.81 | 808.86 | 849.54 |
| 10" | 1,059.39 | 1,154.67 | 1,258.62 | 1,308.86 | 1,374.69 |

b. Volume charges ($/1,000 gallons):

| Volume Charges ($/1,000 gallons) | Effective June 1, 2022 | Effective Jan. 1, 2023 | Effective Jan. 1, 2024 | Effective Jan. 1, 2025 | Effective Jan. 1, 2026 |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| All volumes | 6.16 | 6.71 | 7.32 | 7.61 | 7.99 |
| Large volume contract users (effective Oct. 1, 2014): $3.30 | | | | | |

(2) *Calculation of sanitary sewage volume.* Sanitary sewage volume calculations are as follows:

a. *Residential dwellings.* For residential dwellings, including single-family dwellings and mobile homes on individual lots, the sanitary sewage volume shall be based on 80 percent of the metered water consumption up to a maximum of 25,000 gallons of water.

b. *Duplexes, triplexes and quadruplexes on individual lots.* For duplexes, triplexes and quadruplexes on individual lots, the sanitary sewage volume shall be based on 80 percent of the metered water consumption up to a maximum of 20,000 gallons of water per living unit.

c. *Multifamily.* For multifamily uses, including apartments, townhouses, condominiums, rooming houses, mobile home parks and like facilities, the sanitary sewage volume shall be based on 80 percent of the metered water consumption up to a maximum of 15,000 gallons of water per living unit or mobile home space. The number of units to be used for calculating the maximum charge shall be 90 percent of the actual number of living units or mobile home spaces raised to the nearest whole number.

d. *Nonresidential.* The sanitary sewage volume for nonresidential uses shall be based on 95 percent of the metered water consumption.

e. *Customer with second water meter.* A customer having a second water meter for water usage that is not returned to the sanitary sewer system shall be charged sanitary sewage for 100 percent of the metered water consumption for the water meter supplying general water and sanitary sewage services.

(3) Sanitary sewer customers with no metered water services. Rates for sanitary sewer customers with no metered water services are as follows:

| Non-Metered Service ($ per living unit) | *Effective June 1, 2022* | *Effective Jan. 1, 2023* | *Effective Jan. 1, 2024* | *Effective Jan. 1, 2025* | *Effective Jan. 1, 2026* |
|---|---|---|---|---|---|
| a. Residential dwellings, including single-family dwellings and mobile homes on individual lots | $57.64 | $62.83 | $68.48 | $71.22 | $74.78 |

| | | | | | |
|---|---|---|---|---|---|
| b. Duplexes, triplexes and quadruplexes on individual lots | 57.64 | 62.83 | 68.48 | 71.22 | 74.78 |
| c. Multifamily, including apartments, townhouses, condominiums, rooming houses, mobile home parks and like facilities | 57.64 | 62.83 | 68.48 | 71.22 | 74.78 |
| d. Non-residential. Sanitary sewage quantities for non-residential uses shall be estimated on an individual basis to determine the monthly charge. Sanitary sewage meters may be required to determine the actual volume of sewage. | | | | | |

(Code 1971, § 34-75.2; Ord. No. 94-983-J, § 10, 11-2-1994; Ord. No. 95-983-M, § 7, 11-21-1995; Ord. No. 96-983-P, § 6, 12-18-1996; Ord. No. 97-983-Q, § 6, 12-17-1997; Ord. No. 98-983-R(B), § 5, 10-6-1998; Ord. No. 99-983-W, § 5(34-75.2), 12-1-1999; Ord. No. 2002-983-Y, § 5, 3-26-2002; Ord. No. 2005-983-Z, § 9, 7-5-2005; Ord. No. 2012-1569, § 3, 12-17-2012; Ord. No. 2022-1701, Exh. A, 5-3-2022)

Sec. 102-152. - Sanitary sewer service used for city purposes.

No charge shall ever be made for any sanitary sewer service furnished by the public utilities board to the city for city purposes. The applicable rates imposed by this section shall be applied to sanitary sewer service furnished the city for record purposes only. The sanitary sewer rates to be used for record purposes are fixed as follows:

(1) *Rates.* The charge for sanitary sewer service furnished by the public utilities board to the city for city purposes shall be in accordance with section 102-149 pertaining to the rates for sanitary sewer service inside the city.

(2) *Calculation of sanitary sewage volume.* The sanitary sewage volume shall be based on 95 percent of metered water consumption.

(Code 1971, § 34-76)

Secs. 102-153—102-180. - Reserved.

# APPENDIX D

# SAMPLE WATER & WASTEWATER BILL

**JOHN DOE**
1234 MAIN ST
BROWNSVILLE TX 78520-1234560

BROWNSVILLE PUBLIC UTILITIES BOARD


**Bill Date: 08/01/2023**
From: 06/25/2023
To: 07/25/2023
Bill Days: 31

**Regular Bill**

| Account No. | Previous Bill | Payments | Balance Forward | Adjustments and Fees | Current Charges | Amount Due |
|---|---|---|---|---|---|---|
| 123456 | $336.04 | $336.04 | $0.00 | $0.00 | $386.20 | $386.20 |

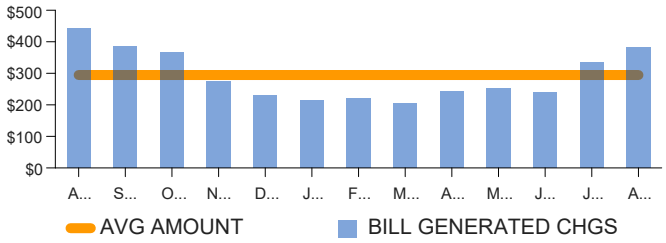
## Billing Summary

| | | |
|---|---|---|
| Balance Forward | $ | 0.00 |
| Electric | $ | 267.23 |
| Water | $ | 39.99 |
| Wastewater | $ | 34.99 |
| City Fees | $ | 43.99 |
| **Current Charges (Total)** | **$** | **386.20** |
| Fees and Penalties | $ | 0.00 |
| Adjustments and Credits | $ | 0.00 |
| **Amount Due** | **$** | **386.20** |

**-Bill is due upon receipt**

*We appreciate your business. See page 3 for breakdown of bill.*

## Billing History




**Outages** (956) 983-6300

**www.brownsville-pub.com**
**Main Office** (956) 983-6100
**Email:** customerservice@brownsville-pub.com

**Billing Questions** (956) 983-6121
**Residential Garbage** (956) 546-Help(4357)
**Commercial Garbage** (956) 544-2100

**Office Hours**
1425 Robinhood Dr.
8:00 a.m. to 5:00 p.m.
Monday - Friday


Please see reverse side for your messages -->

*Keep top portion for your records*

| | |
|---|---|
| **Account No.** | **123456** |
| **Total Amount Due** | **$386.20** |
| **Past Due Date** | **08/21/2023** |
| **Amount Due After Due Date** | **$408.89** |
| **Total Paid** | |

BROWNSVILLE PUBLIC UTILITIES BOARD

P.O. Box 3270
Brownsville, TX 78523-3270

Please write your account number on the check or money order and make it payable to Brownsville PUB

**Conveniently Pay Bills Online, by Phone or by Text**

JOHN DOE
1234 MAIN ST
BROWNSVILLE TX 78520-1234560

2103000008620

Messages

Governor's Division of Emergency Management - HURRICANE EVACUATION GUIDELINES.
Discuss evacuation plans with your family BEFORE hurricane season June 1 - Nov. 30. When a hurricane threatens, evacuating is the smartest move. When local officials call for an evacuation, get going without delay. Monitor NOAA weather radio and local TV and radio broadcasts during storm season. Prepare an emergency supply kit. Learn your evacuation routes before storm season. Make sure you have a FULL TANK OF GAS before you leave. Expect traffic delays. Dial 2-1-1 to register in advance for a ride if you have special health care needs or if you do not have transportation. For more information, please visit the City of Brownsville website at https://www.brownsvilletx.gov/180/Office-of-Emergency-Management-Homeland-.

On Sept. 18, 2023 the Brownsville Public Utilities Board and the city of Brownsville initiated Stage 2 of the Drought Contingency Plan due to declining water reservoir levels. Brownsville residents are urged to adhere to water restrictions. BPUB will continue to provide the best service to residents and keep them abreast of any developments in the area's drought conditions. For more information on the Drought Contingency Plan and its different stages, customers may visit www.brownsville-pub.com/drought or follow BPUB on social media for updates and tips.

Please update your contact information:

To report outages or service issues through our automated system, you will be asked for the contact number associated with the account. To update your information, contact the Customer Service Department at (956) 983-6121 or send an email to customerservice@brownsville-pub.com.

---

Mailing Address Correction

_____

_____

_____

**BROWNSVILLE PUBLIC UTILITIES BOARD**
**PO BOX 660566**
**DALLAS, TX 75266-0566**

**JOHN DOE**
1234 MAIN ST
BROWNSVILLE TX 78520-1234560

**Acct No: 123456**

BROWNSVILLE
PUBLIC UTILITIES BOARD

## Electric Service

Electric Meter

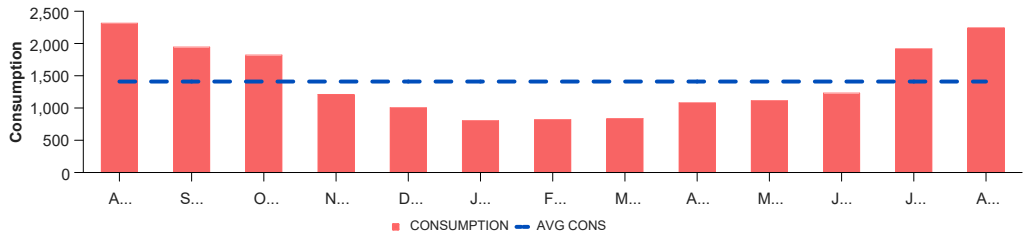
| Serial No: 2125123100 | | Mult: 1 | |
|---|---|---|---|
| **Reg** | **Previous Read** | **Current Read** | **Consumption** |
| KWH | 42941 | 45183 | 2,242 |
| Estimated: No | | Billing Meter | |

Bill Dates
From 06/25/2023 to 07/25/2023

## Description

| | |
|---|---|
| Electric Customer Service Charge | $6.94 |
| Energy Consumption (2242 kWh) | $128.20 |
| 500 kWh @ $0.04862....$24.31 | |
| 1742 kWh @ $0.05964....$103.89 | |
| Fuel and Purchased Energy Charge | $126.85 |
| 2242 kWh @ $0.05658....$126.85 | |
| City Sales Tax (2%) | $5.24 |
| **Total Electric Charges** | **$267.23** |

## Electric Consumption History




Net Cost per kWh
$0.119
($267.23/2242kWh)

Average Monthly Consumption:
**1,410** kWh

Current Month's Consumption:
**2,242** kWh

| | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| kWh | 2,314 | 1,944 | 1,820 | 1,209 | 1,004 | 803 | 819 | 835 | 1,080 | 1,113 | 1,231 | 1,917 | 2,242 |
| Avg | 1,410.08 | | | | | | | | | | | | |

## Information about your Bill

| | |
|---|---|
| **Customer Service Charge:** | Fixed monthly charge intended to cover the costs of maintaining and keeping your customer account records active (data processing, meter reading, billing, maintenance to infrastructure, etc.). |
| **Energy Consumption:** | Charge to cover costs of producing the electricity used (Commodity, Transmission and Distribution Charge, etc.), except fuel. |
| **Fuel and Purchased Energy Charge:** | The cost of fuel used to produce your electricity passed through from our fuel suppliers to our customers with no markup. |
| **Net Cost per kWh:** | Your total Electrical charges divided by the kWh consumption for the current month. |

**JOHN DOE**
1234 MAIN ST
BROWNSVILLE TX 78520-1234560

**Acct No: 123456**

BROWNSVILLE
PUBLIC UTILITIES BOARD

## Water & Wastewater Service

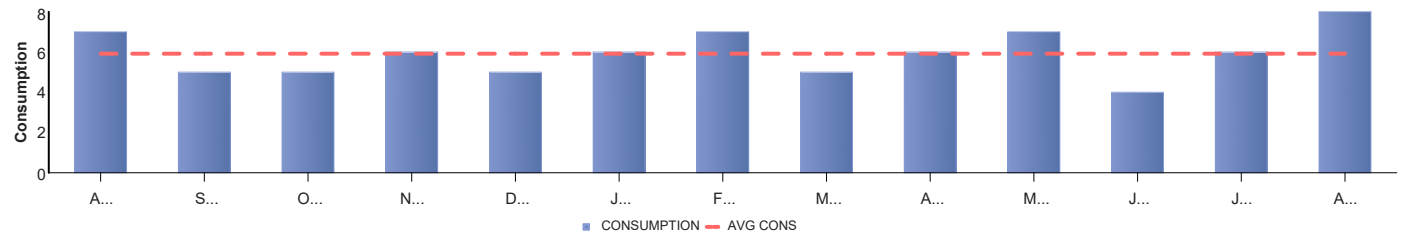
Water Meter

| Serial No: 123450090 | | Mult: 1 | |
|---|---|---|---|
| **Reg** | **Previous Read** | **Current Read** | **Consumption** |
| M | 378 | 386 | 8 |
| Estimated: No | | Billing Meter | |

Bill Dates
From 06/25/2023 to 07/25/2023

| Description | |
|---|---|
| Water Customer Service Charge | $14.06 |
| Water Consumption (8 TGal) | $19.68 |
| 3 TGal @ $2.31....$6.93 | |
| 5 TGal @ $2.55....$12.75 | |
| Resaca Fee | $6.25 |
| **Total Water Charges** | **$39.99** |
| Wastewater Customer Service Charge | $8.88 |
| Wastewater Consumption (6.4 TGal) | $26.11 |
| 6.4 TGal @ $4.08....$26.11 | |
| **Total Wastewater Charges** | **$34.99** |

## Water Consumption History




| | Aug 22 | Sep 22 | Oct 22 | Nov 22 | Dec 22 | Jan 23 | Feb 23 | Mar 23 | Apr 23 | May 23 | Jun 23 | Jul 23 | Aug 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TGal | 7 | 5 | 5 | 6 | 5 | 6 | 7 | 5 | 6 | 7 | 4 | 6 | 8 |

| Avg | 5.92 |
|---|---|

## City of Brownsville Fees

*For questions on your Brownsville City Fees and Garbage Service, please call:*

**City of Brownsville (City Fees)**
**(956) 546-4357**
**GMS Garbage (Commercial Pickup)**
**(956) 544-2100**

| Description | |
|---|---|
| Alley or Curb Collection Service | $25.61 |
| City Garbage Additional Can | $8.56 |
| Garbage City Sales Tax (2%) | $0.68 |
| Garbage State Sales Tax (6.25%) | $2.14 |
| City Maintenance Fee | $4.50 |
| Fed Unfunded Env Compliance Mandate Fee | $2.50 |
| **Total City Charges** | **$43.99** |

# APPENDIX E

# EDUCATION & PUBLIC AWARENESS

# DRINKING WATER QUALITY REPORT

MAY 2020

BROWNSVILLE
PUBLIC UTILITIES BOARD

Public Water Supply
ID No. 0310001

## Brownsville Public Utilities Board Provides Safe Drinking Water

Something that the coronavirus (COVID-19) pandemic made clear is the importance of home. Home is where you retreat for safety. It's something that brings you support, and that's the role that the Brownsville Public Utilities Board (BPUB) tries to take on as your home-town utility.

Clean, safe drinking water is always a top concern for any community, but the importance of that was made even clearer during a pandemic. In times of emergency is when we realize how fortunate we all are to have a reliable source of drinking water.

That's why BPUB personnel have stayed on duty and kept service running throughout the ordeal. They know the importance that people place on these critical services. Whether there's a pandemic or it's just an ordinary day, their commitment to delivering clean, safe drinking water is unwavering, which is why BPUB is recognized as a superior water utility by the Texas Commission on Environmental Quality (TCEQ).

BPUB has focused on the safety and welfare of the community and its employees during this time; our drinking water has always been treated to destroy or inactivate any pathogens – COVID-19 is no different. Our greatest concerns were providing stability during a rough time and being ready to fuel the community's needs when these difficulties pass.

We stand ready to continue to provide that most critical of resources – clean drinking water – as the community continues to heal and recover.

Sincerely,

John S. Bruciak, P.E.
General Manager and CEO

## We Welcome Your Comments

Public participation and education are important elements of our water quality effort. To find out more information about your drinking water, you are invited to the next meeting of our Public Utilities Board Consumer Advisory Panel (PUBCAP).

Because of the coronavirus (COVID-19) pandemic, PUBCAP meetings have been temporarily suspended. BPUB will make an announcement about the date that BPUB staff will present the Drinking Water Quality Report. Please follow BPUB on social media and check the BPUB website to find out when the meeting will be held.

# DRINKING WATER QUALITY REPORT

MAY 2021

BROWNSVILLE PUBLIC UTILITIES BOARD

Public Water Supply
ID No. 0310001

## Brownsville Public Utilities Board Provides Safe Drinking Water

There is nothing more critical to a community than drinking water. That was reinforced during the winter storm event in February as many communities struggled to deliver clean drinking water to its residents.

BPUB prepared for the event, and as the ice melted, BPUB's water system experienced no water outages and didn't need to issue any boil water notices. With the needs of our customers met, we were even able to aid other communities.

That commitment to protect your drinking water is something that our employees exemplify every day of the year, not just when there is bad weather coming. That's our promise to you, and our years of being rated a superior drinking water provider is testament to that.

As we think about how critical drinking water is to a community, don't forget that we're expected to have another hot, dry summer. Start getting in the habit now of conserving water whenever you can. Need help learning how? Follow BPUB on Facebook and Twitter for tips or use the online tools on BPUB's website to learn more.

Sincerely,

John S. Bruciak, P.E.
General Manager and CEO

## We Welcome Your Comments

Public participation and education are important elements of our water quality effort. To find out more information about your drinking water, you are invited to the next meeting of our Public Utilities Board Consumer Advisory Panel (PUBCAP).

Note: PUBCAP meetings are typically on the third Wednesday of every month. The BPUB Board of Directors meets the second Monday of every month. Due to the COVID-19 coronavirus pandemic, these meetings are currently being held virtually. Please check the BPUB website for agendas and meeting details: www.brownsville-pub.com.

Date: Wednesday, July 21
Time: 5:30-7:30 p.m.
Location: Virtual – Please check the BPUB website before the meeting for additional details on how to join the meeting.

Or

Contact the Communications and Public Relations Department at (956) 983-6271.

# DRINKING WATER QUALITY REPORT

MAY 2022

BROWNSVILLE PUBLIC UTILITIES BOARD

Public Water Supply
ID No. 0310001

## Brownsville Public Utilities Board Provides Safe Drinking Water

The infrastructure needed to provide clean safe drinking water to a community requires extensive planning by a team of skilled dedicated individuals, and it also requires a trained team to maintain that system.

While we've come to rely on water being there when we need it, it's easy to lose sight of just how massive an undertaking it is. One must plan ahead to ensure water rights and to work out just how much water is needed for the community. That water needs to be treated to ensure it meets all state and federal requirements, and then that water gets sent into the distribution system, miles of pipes that need to be maintained.

There are professionals at each of those stages – and some in between – making sure that the needs of the community are being met 365 days a year. It's a responsibility that comes with sacrifices, but the team here at BPUB is dedicated to doing what must be done for the community to not just survive but to flourish.

That's the responsibility that we have taken on here at BPUB, and we will continue to provide those essential building blocks needed for our community to grow.

Sincerely,

John S. Bruciak, P.E.
General Manager and CEO

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (956) 983-6100.


## We Welcome Your Comments

Public participation and education are important elements of our water quality effort. To find out more information about your drinking water, you are invited to the next meeting of our Public Utilities Board Consumer Advisory Panel (PUBCAP).

Note: PUBCAP meetings are typically on the third Wednesday of every month. The BPUB Board of Directors meets the second Monday of every month. Please check the BPUB website for agendas and meeting details: www.brownsville-pub.com.

Date: July 20, 2022
Time: 5:30 PM
Location: Board Room
Annex Building
1425 Robinhood Drive
Brownsville, Texas 78520

Or

Contact the Communications and Public Relations Department at (956) 983-6271.

# DRINKING WATER QUALITY REPORT

JUNE 2023

BROWNSVILLE PUBLIC UTILITIES BOARD

Public Water Supply
ID No. 0310001

## Brownsville Public Utilities Board Provides Safe Drinking Water

We're lucky. We're lucky that we avoided any type of drought restrictions for so many years. Many just assume that safe drinking water will always be there when the sink is on, but last year showed we can't rely on luck alone for our drinking water supply.

2022 was the first year since the 1990s that BPUB has had to initiate Stage 2 of its drought plan, and with no relief currently in sight, there's a very good chance that we might once again go into stage 2 when the heat of summer sets in.

BPUB is already doing its part to help by creating additional storage capacity for water by dredging the city's resacas. BPUB is also looking into expanding the treatment capacity of the Southmost Regional Water Authority (SRWA) plant, which treats water independent of the Rio Grande.

But BPUB also needs your help during this time. Because it's not possible to create new water, we should look for ways to use less water to make what we have go further.

Here are some tips on how to help conserve water:
• Avoid using water for nonessential purposes, like spraying the driveway or sidewalks, unless for safety.
• Water the yard early (before 7 a.m.) or late (after 7 p.m.)
• Check your home for leaks and make any needed repairs.

If we all come together, we can ensure that we make the most of the resources that we have. Want to learn more? Visit the BPUB website at www.brownsville-pub.com to find more ways to make your home more efficient.

Sincerely,

Marilyn D. Gilbert
General Manager and CEO

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (956) 983-6100.

## We Welcome Your Comments

Public participation and education are important elements of our water quality effort. To find out more information about your drinking water, you are invited to the next meeting of our Public Utilities Board Consumer Advisory Panel (PUBCAP).

Note: PUBCAP meetings are typically on the third Wednesday of every month. The BPUB Board of Directors meets the second Monday of every month. Please check the BPUB website for agendas and meeting details: www.brownsville-pub.com.

Date: July 19, 2023
Time: 5:30 PM
Location: Board Room
Annex Building
1425 Robinhood Drive
Brownsville, Texas 78520

Or

Contact the Communications and Public Relations Department at (956) 983-6271.

# Tips to Lower Your Energy and Water Bill

## Energy Conservation

*You have the power to save money and electricity right in your own home. Being energy efficient means savings, too.*

## Water Conservation

*Saving water helps save money. You can reduce your water use by taking just a few simple steps.*

*For more information, please visit www.brownsville-pub.com or call (956) 983-6121.*

## Easy low-cost and no-cost ways to save energy and water at home

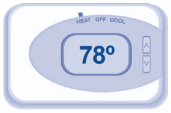
*Taking a whole-house approach to saving electricity and water will help reduce your utility bills. You can lower your monthly bill by following these tips:*

- Lower the thermostat on your water heater to 120°F.

- Air dry dishes instead of using the dishwasher's drying cycle.

- Air dry clothes instead of using the dryer.

- Turn off lights, electronics and computers that are not in use.




- Install a programmable thermostat to prevent cooling or heating the house when no one is home.

- Install low-flow showerheads and take short showers instead of baths.

- Ensure that windows and doors are tightly closed when heating or cooling your home.

- Check toilets for leaks – toilet leaks can waste up to 300 gallons per month.

- Inspect your entire home for water leaks. Avoid wasting water by using a residential water meter to check for leaks.

BROWNSVILLE
PUBLIC UTILITIES BOARD

1425 Robinhood Drive • Brownsville, TX 78521 • (956) 983-6121

# Consejos para reducir su factura de electricidad y agua

## Conservación de Electricidad

*Usted tiene el poder de ahorrar dinero y electricidad en su casa. El aumento de su eficiencia energética es como añadir otra fuente de energía limpia a nuestra infraestructura eléctrica.*

## Conservación de Agua

*Necesitamos ahorrar agua de cualquier forma posible. Usted también puede disminuir su consumo de agua siguiendo pasos muy sencillos.*

*Para más información, visite www.brownsville-pub.com o marque al (956) 983-6121.*

---

### Métodos fáciles para ahorrar electricidad y agua en su hogar gratis o a bajo costo

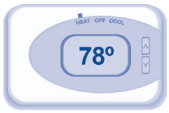
*Adoptando métodos para ahorrar energía y agua en todo su hogar le ayudará a reducir sus mensualidades. Usted puede reducir sus gastos siguiendo estos consejos:*

- Reduzca la temperatura del calentador de agua a 120°F.

- Seque los trastes a mano en lugar de utilizar el ciclo de secado del lavaplatos.

- Seque la ropa al aire libre en lugar de utilizar la secadora.

- Apague luces, aparatos electrónicos y la computadora cuando no esté en la habitación.




- Instale un termostato programable para evitar enfriar la casa innecesariamente cuando no haya nadie en ella y mientras duerme.

- Use una regadera de bajo flujo y tome duchas cortas en lugar de largas.

- Verifique que las ventanas y puertas estén bien cerradas al usar la calefacción o el aire acondicionado.

- Inspeccione el inodoro para detectar fugas – este tipo de fugas pueden gastar hasta 300 galones por mes.

- Revise todo el hogar para detectar fugas de agua, ya que pueden conducir a un aumento del 9% de su consumo mensual.

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# TIPS FOR Conserving Water

1. Avoid keeping the water running while brushing your teeth. Instead, turn off the tap while you brush and use a glass of water to rinse with.
2. Wait until you have a full load of laundry or dirty dishes before running the washing and dish-washing machines. If your machine has a half load button, use that when you are washing only a few items.
3. You can save water in the yard by covering your flowerbeds in gravel, pebbles, wood chips and other material instead of grass. These items cut water evaporation and keep the soil cooler during the summer.
4. Set your lawnmower blades higher during the summer. Longer blades of grass aren't as easily scorched by the sun.
5. You can save water by only watering areas in your yard that really need it. Avoid watering all over.
6. The best time to water your yard is during early morning or evening when the sun is not at its hottest. This allows the water to seep into the soil without immediately evaporating into the air.

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