

# City of Georgetown Water Conservation Plan 2024

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## 1. Introduction and Objectives

Water Supply is a crucial component in the growth and development of Georgetown, as well as the greater Central Texas region. The City is currently experiencing significant residential and commercial growth inside the City limits and the CCN territory. Given the unpredictable nature of drought conditions, it is imperative for the City of Georgetown to effectively utilize its current water supply.

There are two primary advantages of efficient water use. Firstly, it ensures the longevity of our water resources for future generations. By optimizing water usage, we enhance the value of our existing infrastructure, ultimately extending the availability of our current water supply if the objectives outlined in this plan are achieved. Additionally, there is a secondary benefit of reducing or postponing capital improvement projects, which in turn promotes stability in water rates.

Both the Texas Commission on Environmental Quality (TCEQ) and the Texas Water Development Board (TWDB) have provided guidelines and requirements governing the development of water conservation plans. The Texas Water Development Board maintains the best management practices which have been reviewed and considered in the development of this plan. The following Water Conservation Plan was developed and implemented by the City of Georgetown in accordance with guidelines established by the TCEQ and the TWDB.

The Water Conservation Plan objectives are listed below

- Reduce overall water consumption.
- Reduce the loss or waste of water.
- Improve the efficiency in the use of water.
- Document recycling and reuse efforts.

## 2. Utility Profile

The City of Georgetown's total, both current and future, service area serves 456 square miles (Figure 2.1) which includes 159,745 people, and 59,168 connections. The connections are made up of the following categories: 55,411 Residential, 1,266 Commercial, 30 Industrial, and 292 Institutional. In 2023, the average daily water use was 26.28 million gallons per day (MGD), and the peak usage was 45.67 million gallons.

The Utility has planned for the long-term to provide safe drinking water for all users and will continue to plan for the future based on the projected needs in the area. Wastewater collection and treatment service is also available to customers that use City water and, where feasible, to areas outside of the Water CCN such as the sensitive Edwards Aquifer Recharge Zone, where the alternative might be on-site septic facilities.

The entirety of the service area falls within the Brazos River Basin, and has five major watersheds: Stillhouse Hollow Lake- Lampasas River, Berry Creek, North Fork San Gabriel River, South Fork San Gabriel River, and Salado Creek. The City supplied surface water from Lake Georgetown through the Brazos River Authority, and ground water from the Edwards Aquifer.

There are two distinct soil types in the service area, which impact water usage. International Highway 35 runs along the divide of the Edwards Plateau covering the western portion of the service area, and the soil is shallow and rocky. The Blackland Prairie runs to the east, and the soil is deep, and clay-like which helps retain moisture.

#### Figure 2.1 City of Georgetown Water Service Area Map

Georgetown City Limits and ETJ are represented by the purple boundary line. Georgetown Water Operational Area is represented by the blue striped boundary line.



## 2.1 Population and Customer Data

## Table 2.1

Current Number of Active			
Connections			
	Metered		
Residential	55,411		
Single Family			
Residential Multi- 1,266			
Family			
Commercial	2,167		
Institutional	292		
Industrial 30			
Agricultural 0			
Wholesale 2			

### Table 2.2

Current Population Served			
Water Service 159,745			
Wastewater Service 89,552			

## Table 2.3

	Historical Population	on Served			
Water Wastewater					
2019	116,725	58,202			
2020	118,231	65,177			
2021	129,868	80,587			
2022	147,200	85,745			
2023	159,745	89,552			

#### Table 2.4

P	Projected Population Serve	d	
	Water	Wastewater	
2025 258,562 193,274			

2035	439,568	223,274	
2045	577,200	253,274	
2055	669,862	283,274	
2065	777,402	313,274	

## 2.2 Water Usage

#### Table 2.5

Year	Average Daily Use (Gal)	Average Peak Day Use (Gal)	Ratio
2023	26,280,000	35,900,000	1.37
2022	27,440,000	35,920,0000	1.31
2021	22,490,000	26,850,000	1.19
2020	23,290,000	30,490,000	1.31
2019	21,430,000	28,050,000	1.31

## 2.3 Capacity of Treatment Facilities

The City's service area is currently served by four treatment facilities; additional water can be supplied through an interconnection with the cities of Round Rock and Leander, if needed. By 2026, the total treatment capacity will be 100.9 MGD and below is a listing of individual treatment facilities and their capacities.

Table	2.6
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Treatment Facility	Design Capacity (MGD)
North Lake Water Treatment Plant (Expansion ETA 2024)	37.4
Park Water Treatment Plant	6.3
Southside Water Treatment Plant (ETA 2024)	3.2
Domel Water Treatment Plant	3
South Lake Water Treatment Plant (ETA 2026)	44
Round Rock Treated Water Supply to Rabbit Hill PS (Seasonal Connection)	3
Round Rock Treated Water Supply to Flowstone Interconnect (Permanent Connection)	1
Leander Treated Water Supply (Permanent Connection)	3

The City of Georgetown broke ground on the South Lake Water Treatment Plant on May 10, 2022. The new plant will double the treatment capacity of the water utility with planned construction completion in two phases from 2025-2026. The new plant will be located on the south side of Lake Georgetown, near Cedar Breaks Park. The project includes the water treatment facility as well as a raw water intake on Lake Georgetown and a raw water transmission line. Other elements of the project include an administration building that houses a secondary control center, process control labs, and additional office and administration space.

Additionally, the North Lake Water Treatment Plan is being expanded to increase plant capacity by 30 percent to 37.4 million gallons per day. The project started in 2021 with an anticipated completion date in 2024.

#### 2.4 Diverted Water

In order to develop a comprehensive Water Conservation Plan, a review of the water distribution system must be completed. The TWDB Utility Profile was developed with the most current information available, and a copy of the full profile is attached as Appendix A.

The amount of water which has been diverted from our available source is shown in Figure 2.2



#### Figure 2.2 Diverted Water

## 3. Specification of Conservation Goals

The City of Georgetown must establish 5-year and 10-year goals for water loss and municipal water use as part of the plan. The previous 2019 plan goals are show below.

Description	Historic 5- Year Avg	Baseline 2018	5 Year Goal for 2018	10 Year Goal for 2023
Total GPCD <sup>1</sup>	190	187	170	160
Residential (GPCD) <sup>2</sup>	105	99	88	80
Water Loss (GPCD) <sup>3</sup>	30	23	16	13
Water Loss (%)⁴	15.58	12.35	10	8

# Table 3.1 2019 Water Conservation Plan Five-Year and Ten-Year MunicipalPer Capita Water Use Goals (GPCD)

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

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

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

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

Table 3.2 2024 Water Conservation Plan Five-Year and Ten-Year Municipal
Per Capita Water Use Goals (GPCD)

Description	Historic Five- Year Avg	Baseline 2023	Five-Year Goal for 2029	Ten-Year Goal for 2034
Total GPCD <sup>1</sup>	187	180	178	177
Residential (GCPD)²	99	103.13	140.90	146.07
Water Loss (GPCD) <sup>3</sup>	23	13.59	16.04	15.93
Water Loss %	15.58	9.37	9.0	9.0

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

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

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

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

## 3.2 Best Management Practices

The Texas Water Code §11.002 states that the Best Management Practices (BMPs) are voluntary efficiency measures that save "a quantifiable amount of water, either directly or indirectly," BMPs that are useful in implementing other measures but for whom quantifiable savings cannot be identified are described as Strategic BMPs.

The Texas Water Development Board published the "Water Conservation Best Management Practices Guide" in 2004 as a tool for utilities to improve water efficiency of their own operations as well as the efficiency of their customers. The City of Georgetown used these BMPs during the development of this plan.

Figure 3.1 provides a timeline of the implementation schedule and the BMP's highlighted in blue will be implemented over the next five years, and The progress will be tracked and reviewed annually in conjunction with the annual TWDB review of the water conservation plan update. The BMPs highlighted in green have already been implemented.

Conservation Coordinator	In 2022, the roles and duties of the Conservation Coordinator were separated into two positions. This duty separation was made to alleviate the workload on the Conservation Coordinator. One Conservation Coordinator focuses on irrigation and outdoor water conservation while the other focuses on education and outreach.
Cost Effective Analysis	In 2023, the water conservation department has begun auditing the efficiency of conservation programs based on benefit-cost analysis. A model will be developed to compare the expenses associated with implementing current or potential conservation programs with the savings achieved in terms of water usage. Regular annual reviews will be conducted to guarantee cost efficiency. If necessary, programs may be substituted or discontinued.

#### **Figure 3.1 Best Management Practices**

Water Survey for	City staff conducts on-site irrigation surveys and
Single-Family	evaluates the current irrigation schedule and
and Multi-Family	recommends any equipment repairs or changes to
Customers	increase the efficiency of the irrigation system. Water
	surveys are accessible to all customers, irrespective of
1 11	their water usage level. By the year 2028, the number of
	irrigation surveys will be augmented by 25%. Customers
	are required to engage a third-party agency for
	evaluations of indoor water consumption.
Customer	By 2026, residential and non-residential customer data
Characterization	will be analyzed to ensure that utility conservation goals
	are met in an effective and efficient manner. Customer
	data will be reviewed annually to make informed
	choices for water conservation best management
	practices that are best suit for the City of Georgetown
	water service area.
Water	The City of Georgetown has a separate rate system for
Conservation	residential and non-residential. Residential customers
Pricing	have a 4-tier rate system in cost per 1,000 gallons. Non-
	residential customers have a 2-tier volumetric water
	rate system dependent on type of business and meter
	size. All customers are encouraged to conserve water
	during both peak and non-peak season.
Metering of All	In the Western District of the Utility, the AMR meters
New Connections	will be upgraded to Sensus AMI meters. All new
and Retrofit of	construction will use Sensus AMI meters. Acculink
Existing	meters will be retrofitted with Sensus AMI meters to
Connections	have a combination of 23,500 Sensus and Acculink
	products by 2025.
Athletic Field	Currently City athletic fields rely on treated effluent
Conservation	water for a portion of their irrigation requirements.
Golf Course	All six golf courses in the water service area rely on
Conservation	treated effluent water for their irrigation requirements.
Landscape	The City of Georgetown currently offers several rebate
Irrigation	programs to assist customers with improving the
Conservation and	efficiency of their irrigation systems. These programs
Incentives	will be evaluated each year to ensure they achieve a
	reduction in peak demand and overall water use, as well
	as being cost effective. The current rebate programs
	include:

Park Conservation Residential Landscape Irrigation Evaluation Outdoor Water Schedule	<ul> <li>Irrigation Evaluation Rebate- Aims to offset the cost of having a licensed irrigator perform a system evaluation.</li> <li>Smart Controller Rebate- Incentivizes the replacement of irrigation controllers with one which is EPA WaterSense approved.</li> <li>Spray-to-Drip Conversion- Replace an entire zone of spray irrigation to drip irrigation.</li> <li>Multi-Stream Rotor Conversion- Replace an entire zone to multi-stream rotor heads.</li> <li>Rain Barrel Purchase- Rebate is applied on the purchase of a rain barrel.</li> <li>Pool Cover- Rebate is applied on the purchase of a pool cover to prevent evaporation.</li> <li>Lawn Aeration and Composting- Aims to offset the cost of having a yard serviced with lawn aeration and composting.</li> <li>Hose Water Timer- Rebate is applied on the purchase of a hose water timer to prevent overwatering.</li> <li>In addition to the above, the City is refurbishing the existing turf grass conversion programs which would incentivize the reduction in the amount of turf grass and/or irrigated area of a property.</li> <li>Currently City parks rely on treated effluent water for a portion of their irrigation requirements.</li> <li>The City of Georgetown offers a free irrigation evaluation to help customers use their system more efficiently. They check the irrigation controller, run all the zones, check all the heads are functioning properly, and provide a recommended schedule based on your specific lawn needs and system.</li> <li>In 2019, The City adopted a two day per week watering schedule for customers. Doing this promoted long term water savings as well as reduction in the peak demand experienced during the heavy outdoor irrigation months.</li> </ul>
Public Information	The City of Georgetown utilizes various platforms to communicate public information, such as a billboard located in our western district, printed materials, regular website updates, press releases, commercials on our

	local station, newsletter excerpts and in person outreach events. The water utility has a Marketing Program Coordinator to ensure the property execution of our public information initiatives.
School Education	In 2024, the City will initiate water conservation programs catered to elementary, middle, and high school students. The City of Georgetown has collaborated with Project WET to provide water education resources to schools in the area. As the educational program for schools grows, we anticipate establishing additional partnerships.
Public Outreach and Education	Multiple outreach events are organized annually to raise awareness about the importance of water conservation. At these events, valuable educational materials are distributed, including complimentary resources provided by reputable institutions such as TWDB, TCEQ, EPA Watersense, and Texas A&M AgriLife. The effectiveness of this Best Management Practice is measured through attendance figures and feedback collected from participants.
Partnerships with Nonprofit Organizations	The City has built partnerships with community organizations to promote water efficiency. Key community groups such as the Sun City Water Ambassadors, Texas A&M Agrilife Extension, Southwestern University, and Georgetown Independent School District are vital to the success of a comprehensive water conservation strategy in Georgetown.
Conservation Programs for ICI Accounts	In 2024, the ICI sector conservation program will be developed. The implementation of this program will be expanded throughout the following years. ICI customers will be categorized by type and water usage. Once established, the program will incentivize ICI customers with retrofits, conversions, and installation.
Water Wise Landscape Design and Conversion Programs	We are currently offering an irrigation rebate to encourage water-wise landscape design and conversions. Customers who have an irrigation system can take advantage of our Xeriscape and Native Landscaping Conversion Rebate Program. To ensure the program runs smoothly, we reviewed it in 2023 and made necessary efficiency improvements. Annual reviews will be conducted to ensure its effectiveness

	and make any necessary adjustments. In 2024, we plan to expand the program to our ICI customers.
Customer Conservation Rebates	The City of Georgetown currently offers several rebate programs to assist customers with improving the efficiency of their irrigation systems. These programs will be evaluated each year to ensure they achieve a reduction in peak demand and overall water use, as well as being cost effective. In 2024, rebate amounts are expected to increase with the addition of adding rebates to incentivize ICI customers.
Plumbing Assistance for Economically Disadvantaged Customers	The City of Georgetown Home Repair Program has been established to provide home repairs to homeowners who are residents of the City of Georgetown and have limited resources. The goal is to help residents with limited resources to make improvements such as plumbing systems. The City has partnered with Habitat for Humanity of Williamson County to administer the program.
New Construction Greywater	A new construction greywater incentive will be developed by 2027. The objective of this program will be to promote the utilization of greywater for irrigation and lavatory purposes in new commercial constructions.
Rainwater Harvesting and Condensate Reuse	The rainwater harvesting rebate program will undergo revisions in 2024 to accommodate the inclusion of larger cisterns. It is recommended that all new commercial construction projects incorporate condensate reuse practices. To encourage the use of condensate reuse, incentives or mandatory requirements may be considered through the implementation of an ordinance in 2025.
Water Reuse	The City of Georgetown is a producer of reclaimed water from four wastewater treatment plants. Direct use of reclaimed water is used for irrigation across the water utility district in areas such as Southwestern University, Cimarron Hills, and Berry Creek.
Prohibition on Wasting Water	As of April 11, 2023, the Code of Ordinance declares that water waste is prohibited. It is unlawful for any person to cause, suffer, or allow water waste. This may be enforced administratively, by civil action, or civil prosecution.
Conservation Ordinance	Chapter 13 of the City of Georgetown Code of Ordinance was revised in 2023 to become more

Planning and Development	stringent on restrictions, enforcement, and administrative penalties. The adoption of the ordinance provides City staff the ability to implement, enforce, and administer the program.
Enforcement of Irrigation Standards	<ul> <li>Section 13 discusses the standards and minimum system requirements of an automatic irrigation system. Additionally, this section outlines the appropriate utilization of the system, covering topics such as water conservation and the schedule for landscape watering. Enforcement of irrigation standards may be carried out by the following remedies:</li> <li>A. The administrative enforcement process established in Section 13.15.160;</li> <li>B. An administrative hearing process established in Chapter 1.15 (Administrative Hearings);</li> <li>C. A civil action described in V.T.C.A., Local Government Code Ch. 54, Subsec. (B); or</li> <li>D. A criminal prosecution in Municipal Court.</li> </ul>

## 3.3 Achieving Targets

## Figure 3.2 Timeline of BMP Implementation



## 3.4 Tracking Targets and Goals.

In 2018, the City of Georgetown implemented a new Customer Information System (CIS) which allowed for the classification of customers by type of water use. Customers are segmented into the following classes: Residential, Commercial, Industrial, Government/ School (Institutional). Campaign management features which were unavailable in the pervious legacy system can now be used to reach these customers. In 2023, the utility customer selfservice billing portal was upgraded with a new look and new features. Along with a modern look, the upgrade system includes more options for utility customers in the portal and is expected to improve workflow for customers and City staff.

## 4. Marketing Campaigns

Fundamentally, conservation is about changing customer behavior. The City is committed to providing relevant information to customer directly, rather than relying on passive conservation campaigns and incentives. Two initial targeted campaigns will provide feedback to customers regarding water usage. "Love Your Local Lawn" will highlight outdoor water usage and "Super Water Savers" will highlight on indoor water usage. In 2022, Georgetown established a partnership with EPA Watersense, a national brand that promotes water efficiency with a strong and consistent message. Additional opportunities exist for communicating proactively with customers regarding potential leaks. Providing this level of information will be crucial in accomplishing both the long- and short-term goals of this plan.

## 5. Production Meter(s)

Georgetown utilizes raw water meters to quantify and monitor the water diverted from the source to its distribution system. The volume of treated water supplied to customers is determined by deducting any losses or wastage from the initial raw water measurement.

## 6. Universal Metering Program

The City of Georgetown is in the process of upgrading the remaining portion of our system to AMI In the Western District of the Utility, the AMR meters will be upgraded to Sensus AMI meters. All new construction will use Sensus AMI meters. Acculink meters will be retrofitted with Sensus AMI meters to have a combination of 23,500 Sensus and Acculink products by 2025. This greatly improves our ability to monitor and track the accuracy of our water metering network in real time.

## 7. Water Loss Control Program

The City of Georgetown will be implementing a new AMI meter program in 2025. This program aims to measure and control water loss throughout the entire city. It helps to identify both real or physical losses of water from the water system and apparent losses, which refers to water consumed by customers that is not accounted for. Some examples of this program's functionality include tracking customers' irrigation days, providing usage reports every 15 minutes, and detecting if a meter has been tampered with or moved. Additionally, the City has implemented a priority work order system for addressing water leaks and a leak detection program for inspecting water mains.

Figures 7.1 and 7.2 depict the historical data on water loss and leakage.



Figure 7.1



## 8. Leak Detection Program

The City does proactive leak detection on the entire distribution system annually. Leak detection is done on each main line segment and as leaks are found, the repairs are managed through a work order management system. In the associated leak work order, the amount of water loss is estimated and tracked for the use in annual reporting. Customers can be alerted when they have a leak by utilizing leak alerts which are set up through a program called "Aqua Alerts". Additionally, the conservation team alerts customers about leaks detected via the AMI infrastructure and offers educational resources on locating and addressing leaks.

#### 9. Public Education and Outreach

The City promotes water conservation by providing the public with information in a variety of ways and is bulleted below.

- Providing information on the City's conservation website.
- Monthly articles/tips in the City newsletter which is mailed to all utility customers.
- Seasonal direct mailings to all water customers promoting efficient water use.
- Informational presentations to school and community groups.
- Informational booths at local festivals and events.

Georgetown annually hosts conservation events like the Painted Rainbarrel Sale and the Conservation Expo, dedicated to raising awareness and educating the community. Since their inception, these events have witnessed a steady increase in attendance each year, indicating a growing interest and engagement among participants.

#### 10. Water Rate Structure

The Water Utility is funded solely by the rates paid by its customers, impact fees paid by builders for new connections, and proceeds from bond issuance for capital projects. The utility reviews its rates every year and reviews its impact fees every three years to ensure the costs to operate the utility are covered by the combination of rates, impact fees, and bond issuance. The previous water rates were implemented in 2021. Water rates before the 2021 change were implemented in 2014 at the same time as the consolidation with Chisolm Trail Special Utility District.

Base Rates (effective 04/01/2024)			
Customer Charge (per month)	Inside City	Outside City	
5/8 inch meter	\$27.30	\$32.85	
<sup>3</sup> ⁄4 inch meter	\$40.95	\$49.25	
l inch meter	\$68.25	\$82.10	
1 ½ inch meter	\$136.50	\$164.15	
2 inch meter	\$273.00	\$328.35	
3 inch meter	\$655.20	\$788.00	
4 inch meter	\$1,146.60	\$1,039.00	
6 inch meter	\$2,511.60	\$3020.65	
8 inch meter	\$4,368.00	\$788.00	
Fire Hydrant	\$655.20	\$788.00	

#### **Table 10.1**

#### **Table 10.2**

Residential Water Rates (effective 10/01/2022)* Cost is per 1,000 gallons		
(1,000 gallons)	Volumetric Rate	
Up to and including 7,000 gallons	\$2.30	
Over 7,001 gallons, up to and including 15,000 gallons	\$3.45	
Over 15,001 gallons, up to and including 25,000 gallons	\$6.05	
Over 25,001 gallons \$10.60		
*Residential low-income discount of 30 percent is available to customers who can provide us with verifiable proof of participation in the Medicaid Program by a permanent resident in the household.		

#### **Table 10.3**

	Meter Size	Tier 1 Rate	Tier 2 Rate	Tier 2 Threshold
Small Commercial	<2"	\$3.05	\$8.20	300,002 gailons
Large Commercial	2"	\$3.05	\$8.20	600,001 gallons
Large Commercial	3"	\$3.05	\$8.20	900,001 gallons
Large Commercial	4"	\$3.05	\$8.20	4,000,001 gallons
<sup>a</sup> Large Commercial	6"	\$3.05	\$8.20	6,000,001 gallons
Large Commercial	8"	\$3.05	\$8.20	8,000,001 gallons
Manufacturing	<8"	\$3.05		
Municipal Interruptible		\$3.05		
Restaurant		\$3.05		
Evaporative Cooling		\$3.05		
Fire Flow		\$3.05		
Irrigation Only		\$5.05	\$10.80	500,001 gallons
Fire Hydrant Meter		\$10.75		

#### **Table 10.4**

Non-Potable Rates (effective 10/01/2023) Cost is per 1,000 gallons		
54	Current	Adopted
Reclaimed Water	\$1.40	\$1.60

#### Table 10.5

Multifamily (Master Metered) Water Rates (effective 10/01/2023) Cost is per		
1,000 gallons		
Base	\$24.75 x Unit Count	
Tier 1 Unit Count x 7,000 gallons		
Tier 2 Unit Count x 8,000 gallons above		
Tier 1		
Tier 3 Unit Count x 10,000 above Tier 2		
Tier 4 all flows above Tier 3		

#### Table 10.6

RV (Master Metered with oversized meter for fire flow) Water Rates		
Base	\$37.10 x Unit Count/8 units	
Tier 1 Unit Count x 7,000 gallons	\$2.30	
Tier 2 Unit Count x 8,000 above Tier 1	\$3.45	
Tier 3 Unit Count x 10,000 above Tier 2	\$6.05	
Tier 4 all flows above Tier 3	\$10.60	

## **Conservation Coordinator**

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

Signed Official Ordinance

Wholesale Contract Requirements

The City of Georgetown has wholesale water contracts with several surrounding cities including the cities of Leander, Florence, and Liberty Hill. Those contracts require that those cities certify adoption of a Water Conservation Plan and Drought Contingency Plan in accordance with TCEQ guidelines.

#### **Regional Water Planning Group Notification**

The services area for the City of Georgetown is located within the Regional Water Planning Area G. A copy of the adopted Water Conservation Plan and Drought Contingency Plan has been provided to Region G. A copy of the transmittal is included in Appendix X.



## **Texas Commission on Environmental Quality**

Water Availability Division MC-160, P.O. Box 13087 Austin, Texas 78711-3087 Telephone (512) 239-4600, FAX (512) 239-2214

#### Drought Contingency Plan for a Retail Public Water Supplier

This form is provided as a model of a drought contingency plan for a retail public water supplier. If you need assistance in completing this form or in developing your plan, please contact the Conservation Staff of the Resource Protection Team in the Water Availability Division at (512) 239-4600.

**Drought Contingency Plans must be formally adopted by the governing body of the water provider and documentation of adoption must be submitted with the plan**. For municipal water systems, adoption would be by the city council as an ordinance. For other types of publicly-owned water systems (example: utility districts), plan adoption would be by resolution of the entity's board of directors adopting the plan as administrative rules. For private investor-owned utilities, the drought contingency plan is to be incorporated into the utility's rate tariff. Each water supplier shall provide documentation of the formal adoption of their drought contingency plan.

Name:	City of Georgetown Texas	
Address:	808 Martin Luther King Jr. St.	reet, Georgetown, TX 78626
Telephone Number:	(512) 930-3652	Fax: ( )
Water Right No.(s):	N/A	
Regional Water Planning Group:	Region G Brazos	
Form Completed by:	Chelsea Solomon, P.E.	
Title:	Water Utility Director	
Person responsible for implementation:	Chelsea Solomon, P.E	Phone: (512) 930-6116
Signature:	chita	Date:04/11/2023

# CITY OF GEORGETOWN, TEXAS DROUGHT CONTINGENCY PLAN

Last adopted by OHI 23-6.B City Council Resolution No. \_\_\_\_ on April 11, 2023

TCEQ-20191 (Rev. 12/2018 and City of Georgetown, Texas)

#### Section I: Declaration of Policy, Purpose, and Intent

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

Water uses regulated or prohibited under this Drought Contingency Plan (the Plan) are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply condition are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in Section X of this Plan.

#### Section II: Public Involvement

Opportunity for the public to provide input into the preparation of the Plan was provided by the City of Georgetown, Texas by means of posting and scheduling the Plan for discussion and input at a City Council meeting. A copy of the Resolution adopting the Plan is attached as **Attachment 1**.

#### Section III: Public Education

The City of Georgetown, Texas will periodically provide the public with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by means of public service announcements or press releases to local media, posting on the City's website and social media, and utility bill inserts.

#### Section IV: Coordination with Regional Water Planning Groups

The water service area of the City of Georgetown, Texas is located within the Region G Brazos Regional Water Planning Group and a copy of this Plan has been provided to the Chair of the\_Region G Brazos Regional Water Planning Group.

#### Section V: Authorization

The City Manager, or his/her designee is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The City Manager or his/her designee shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

#### Section VI: Application

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

#### Section VII: Criteria for Initiation and Termination of Drought Response Stages

The City Manager or his/her designee shall monitor water supply and/or demand conditions on a <u>monthly</u> basis, or more frequently if needed, and shall determine when conditions

warrant initiation or termination of each stage of the Plan, that is, when the specified "triggers" are reached.

The triggering criteria described below are primarily based on the following factors.

#### A. <u>Water supply conditions</u>:

The Brazos River Authority (**BRA**) manages all of the surface water resources in the Brazos River Basin, including BRA's three existing water storage lakes, and the US Army Corps of Engineers' eight flood control and water supply reservoirs.<sup>1</sup> BRA currently holds water rights issued by the State of Texas for this system of reservoirs and manages them under its Systems Operations Permit. Collectively, these rights authorize BRA to supply approximately 1 million acre-feet of water from the Brazos River Basin annually for municipal, industrial, agricultural, and mining purposes.<sup>2</sup>

BRA also operates two pipeline systems to transport water from reservoir storage to areas where it is needed. The Williamson County Regional Raw Water Line (**WCRRWL**) links Lake Stillhouse Hollow in Bell County and Lake Georgetown in Williamson County. The East Williamson County Water Transmission Line moves water supply from Lake Granger to a potable water treatment plant.

The City of Georgetown has eight contracts with BRA pursuant to which it has contractual rights to divert a total of 45,707 acre-feet of water per year from the Brazos River Basin from water stored by BRA in Lake Georgetown, Lake Stillhouse Hollow, and Lake Belton. Currently, all of the City of Georgetown's Brazos River Basin water is withdrawn from Lake Georgetown. The Lake Stillhouse Hollow water transported directly to Lake Georgetown via the WCRRWL. BRA is operating all water storage reservoirs in the Brazos River Basin as a system, allowing the City of Georgetown to also pump its Lake Belton water allotment from Lake Georgetown.

The City of Georgetown also has rights to an additional 1,200 acre-feet of water per year made available to BRA via interbasin transfer from the Colorado River Basin, which the City of Georgetown receives at the Brushy Creek Regional Utility Authority plant.

In addition, the City of Georgetown owns and operates six groundwater wells which collectively have the capacity to produce 6,888 acre-feet of water per year from the Edwards Aquifer.<sup>3</sup>

In summary, the City of Georgetown has contractual rights to 46,907 acre-feet per year of surface water, and the ability to produce 6,888 acre-feet per year of groundwater from the Edwards Aquifer, for a total of approximately 53,795 acre-feet per year.

#### B. <u>Water Demand Conditions</u>.

The City of Georgetown's historical annual water use, per BRA and LCRA, is shown on **TABLE I** below:

<sup>&</sup>lt;sup>1</sup> BRA leases water supply storage space in US Army Corps of Engineers' eight reservoirs from the federal government. Lake Georgetown, Lake Stillhouse Hollow, and Lake Belton are US Army Corps of Engineers' reservoirs. *See* <u>https://brazos.org/About-Us/Water-Supply</u>

<sup>&#</sup>x27; See https://brazos.org/About-Us/Water-Supply

<sup>&</sup>lt;sup>3</sup> Although the City of Georgetown holds certificates of adjudication issued by the predecessor agency of the Texas Commission on Environmental Quality, those water rights do not authorize the use of water for municipal water supply purposes. The City of Georgetown holds Certificate of Adjudication No. 3738 authorizing the diversion of 11 acre-feet of water from the San Gabriel River authorizing it to maintain a dam and reservoir for recreational purposes known locally as "Blue Hole," with no right of diversion. The City of Georgetown also holds Certificate of Adjudication No. 3742 authorizing the use of 16.25 acre feet of water for Agriculture/Irrigation purposes.

YEAR	Brazos River Authority	Colorado Basin
	USAGE IN ACRE-FEET	USAGE IN ACRE-FEET
2022	20,878	1,200
2021	19,493	
2020	17,646	
2019	5,308 + 10,038 = 15,346	
2018	15,301	
2017	15,163	
2016	12,583	Y THE THE PARTY OF
2015	7,924	
2014	8,220	

The City of Georgetown's population (based on its SMSA) during this same period has increased from approximately 77,000 in 2014 to approximately 128,000 in 2021. The City of Georgetown's projected population in 2023 is 155,000. The City of Georgetown also serves customers outside of its SMSA.

#### C. <u>Water System Conditions</u>.

The City of Georgetown currently serves approximately 56,430 customer connections within a 465 square mile area using over 1,084 miles of water mains.

The City of Georgetown currently owns and operates four water treatment facilities, which collectively are currently permitted to treat up 41.1 to million gallons per day (MGD). In addition, the City of Georgetown is in the process of expanding its existing North Lake Water Treatment Plant and constructing a new water treatment plant, the South Lake Water Treatment Plant. On the completion of these projects, the City will have the permitted capacity to treat 93.9 MGD of raw water. This information is summarized on <u>TABLE 2</u> below:

Plant Name	Current Water Treatment	
	Capacity	after System Expansion
	in Million Gallons per Day (MGD)	in Million Gallons per Day (MGD)
Lake Water Treatment Plant	28.6	37.4
Park Water Treatment Plant	6.3	6.3
Southside Water Treatment	3.2	3.2
Plant		
Domel Water Treatment Plant	3.0	3.0
South Lake Water Treatment		44.0
Plant		
<b>Total Water Treatment System</b>	41.1 MGD	93.3 MGD
Capacity		

#### TABLE 2

In addition, the City of Georgetown is in the process of expanding its existing North Lake Water Treatment Plant by 8.8 MGD from 28.6 MGD to 37.4 MGD. The City is also in the process of constructing a new water treatment plant, the South Lake Water Treatment Plant, which is permitted to treat 44 MGD. On the completion of these projects, the City will have the permitted capacity to treat 93.9 MGD of raw water.

The City's current, constructed, total wastewater treatment system capacity is 8.5 MGD.

# D. Utilization of alternative water sources and/or alternative delivery mechanisms:

The City of Georgetown currently has four interconnection agreements with neighboring cities, two of which relate to treatment by others Georgetown's BRA-contracted raw surface water, and two of which are for temporary water supplies (totaling 4 MDG for a period less than 10 years).

#### Section VIII. Minimum Water Conservation Measures

The City of Georgetown has established minimum, year-round water conservation measures that apply to its retail water customers. These measures include a schedule that provides more efficient outdoor irrigation methods more time to water, but limit watering to certain days and hours based on address. These year-round measures are codifed in Chapter 13.15 of the City Code of Ordinances, a copy of which is attached to this Plan as <u>ATTACHMENT</u> 2. The City Council may amend Chapter 13.15 of the City Code of Ordinances from time to time, and the most current copy can be found by navigating to this link and selecting Title 13, Chapter 13.15: <u>https://library.municode.com/tx/georgetown/codes/code\_of\_ordinances</u>.

## Section IX. Additional Water Conservation Measures - Drought and Emergency Response Stages

Additional water conservation measures may be implemented based on factors related to water supply, water demand, water treatment system capacity, and similar factors. Regarding water supply conditions, the City of Georgetown relies on BRA to monitor the supply of surface water in the Brazos River Basin. BRA notifies the City of Georgetown when any of the triggers in its drought contingency plan have been reached and whether it has reached a drought stage. Regarding groundwater supply factors, the City monitors water levels in its wells and uses one of those wells (which is representative of the other five wells) to determine whether a groundwater supply factor warrants triggering of a drought stage.

Regarding water demand, water treatment system capacity, and other non-water-supply related factors, the City monitors this information on a regular basis as the owner and operator of its water treatment system and retail and wholesale customer usage information.

These and any other relevant factors are analyzed by the City Manager to determine when to consider ordering implementation of a drought stage requiring additional water conservation/demand reduction actions by the City's retail water customers, and when to terminate such an order.

The City of Georgetown's information relating to its Drought and Emergency Response Stages are listed in **TABLE 3** below:

**TABLE 3** 

		Drought R	Drought Response Stage	
Triggering Condition	Drought Response Stage 1	Drought Response Stage 2	Drought Response Stage 3	Errergency Drought Response Stage 4
Groundwater Availability Factors (from City's 6 groundwater weils)	The water level in the CTV's No. 1 well drops to, or stabilizes below, 50 feet above the pump suction for a period of more than 5 consecutive days	The water level in the City's No. 1 well drops to, or stabilizes below, 40 feet above the pump suction for a period of more than 5 consecutive days.		
Surface Water Availability Factors (from BRA System)	When declared by BRA per BRA's DCP	When declared by BRA per BRA's DCP	When declared by BRA per BRA's DCP	When declared by BRA per BRA's DCP
Surface Water Operational Factors [Williamson County Regional Raw Water Line (WCRRWL) Pumping Operations]	When sustained pumping operations through the WCRRWL continue for longer than the period stated in BRA's DCP	When sustained pumping operations through the WCRRWL continue for longer than period stated in BRA's DCP	When sustained pumping operations through the WCRRWL continue for longer than period stated in BRA's DCP	When sustained pumping operations through the WCRRWL continue for longer than period stated in BRA's DCP
Water Treatment System Capacity Factors	When City's total water treatment capacity has exceeded 85 % for 3 or more consecutive days. (Goal = 10% reduction in usage ) EXAMPLE: Trigger = 44.1 mgd total treatment capacity x 85% = 37.485 mgd actual treatment Usage Reduction Goal = 37.485 x 90% = 33.7365 mgd	When City's total water treatment capacity has exceeded 90 % for 3 or more consecutive days. (Goal = 15% reduction in usage ) EXAMPLE: Trigger = 44.1 mgd total treatment capacity x 90% = 39.69 mgd actual Usage Reduction Goal = 39.69 x 85% = 35.721 mgd	When City's water treatment capacity has exceeded 95 % for 3 or more consecutive days. (Goal = 20% reduction in usage) EXAMPLE: Trigger = 44.1 mgd total treatment capacity x 95% = 41.895 mgd actual treatment Usage Reduction Goal = 41.895 x 80% = 33.516 mgd	
Other Factors	The City Manager may also issue as system outage, equipme	ity Manager may also issue an order declaring any Drought Stage based on an assessment of all relevant circumstances and conditions as system outage, equipment failure, structural failure, sabotage, natural disaster, contamination of water source, or other reasons or emergencies.	tage based on an assessment of all relev tage, natural disaster, contamination of v emergencies.	The City Manager may also issue an order declaring any Drought Stage based on an assessment of all relevant circumstances and conditions such as system outage, equipment failure, structural failure, sabotage, natural disaster, contamination of water source, or other reasons or emergencies.

	DEMAND REL	DEMAND REDUCTION GOALS:	
Drought Stage 1	Drought Stage 2	Drought Stage 3	Emergency Drought Stage 4
Reduce demand by 10% of prior	Reduce demand by 15% of prior	Reduce demand by 20% of prior	Reduce demand by more than 50% of
year's usage by implementing	year's usage by implementing year's usage by implementing Stage year's usageby implementing Stage	year's usageby implementing Stage	prior year's usage (domestic indoor
Stage 1 Regulations in City Code	2 Regulations in City Code of	3 Regulations in City Code of	use only) by implementing
of Ordinances Ch. 13.16.	Ordinances Ch. 13.16.	Ordinances Ch. 13.16.	Emergency Drought Stage 4
			Regulations in City Code of
			Ordinances Ch. 13, 16.
	REQUIREMENTS	REQUIREMENTS FOR TERMINATION:	101125 2 12 - 10 1 - 10
Drought Stage 1	Drought Stage 2	Drought Stage 3	Emergency Drought Stage 4
Evaluated monthly based on	Evaluated monthly based on system	Evaluated monthly based on	Evaluated monthly based on system
system capacity, national	capacity, national drought monitor, system capacity, national drought	system capacity, national drought	capacity, national drought monitor,
drought monitor, projected lake	drought monitor, projected lake projected lake levels, operational	<ul> <li>monitor, projected lake levels,</li> </ul>	projected lake levels, operational
levels, operational needs.	needs.	operational needs.	needs.

#### A. Procedures to be Followed for Initiation and Termination of Drought Stage

Per City of Georgetown Code of Ordinances Chapter 13.16, the City Manager is authorized to issue an order to implement a Drought Response Stage when one or more triggering condition has been met, and to terminate a Drought Response Stage when the terminating condition has been met.

When a Drought Response Stage is initiated or terminated, the public will be notified via means such as:

- Notice on the City of Georgetown Website (<u>https://georgetown.org/</u>),
- Public Service Announcements and/or press releases in the local media and on GTV Channel 10 (https://georgetown.org/communications-department/channel-10/),
- Postings on the City's social media accounts
- Signs and flyers in public places

Customers will be notified using their contact information on file with the City of Georgetown (e.g., text, email, telephone, regular mail) and/or via utility bill inserts.

BRA, Region G Brazos, and the TCEQ will also be notified when and as required by law and TCEQ regulation.

The City Manager will also use all reasonable efforts notify the following individuals and entities directly of the implementation or termination of any declaration regarding Drought Stage 2 or higher:

- City Mayor and City Council Members
- Fire Chief
- City Department Heads
- City and/or County Emergency Management Coordinator(s)
- County Judge & Commissioner(s)
- State Disaster District / Department of Public Safety
- TCEQ (required when mandatory restrictions are imposed)

#### **B. Regulations Applicable During Drought Response Stages**

The City of Georgetown has adopted a detailed ordinance describing additional restrictions on water usage to reduce water demand and use during each Drought Response Stage, which are codified in the City Code of Ordinances at Chapter 13.16, a copy of which is attached to this Plan as ATTACHMENT 3. The City Council may amend Chapter 13.16 of the City Code of Ordinances from time to time, and the most current copy can be found by navigating this link and selecting to Title Chapter 13.16: 13, https://library.municode.com/tx/georgetown/codes/code\_of\_ordinances . By this reference, all requirements of Chapter 13.16 are hereby incorporated into this Plan and made applicable to all Customers regardless of their location, as the provisions of Chapter 13.16 are amended from time to time by the City Council.

#### C. Variances

Procedures for granting variances are contained in the City of Georgetown Code of Ordinances at Chapters 13.15 and 13.16.

#### D. Enforcement

TCEQ-20191 (Rev. 12/2018 and City of Georgetown, Texas)

Violations are subject to administrative, civil, and criminal penalties, as detailed in the City of Georgetown Code of Ordinances at Chapters 1.15, 13.15, and 13.16 up to the amounts authorized by State law. A copy of Chapter 1.15 is attached as *ATTACHMENT 4*.

#### Section X. Wholesale Contract Provisions

New wholesale contracts include standard language requiring that the customer adhere to the City's Code of Ordinances, including Chapters 13.15 and 13.16. Generally, wholesale customers in a new contract are also required to establish a water conservation program similar to the one administered by the City of Georgetown.

Customers with older contracts not requiring water conservation provisions are requested to voluntarily implement water conservation measures similar to those imposed by the City.

Pro rata curtailment shall be done in accordance with Texas Water Code §11.039. All new, renewed, or extended wholesale supply contracts will also include a provision that water shall be distributed on a pro rata basis in the event of a water shortage resulting from drought. Enforcement actions for non-compliance with either the Water Conservation Code or pro rata water reductions by wholesale customers will vary according to the specifics of each wholesale customer's contract.

## ATTACHMENT 1

#### **CITY OF GEORGETOWN**

#### **ADOPTING RESOLUTION**

#### RESOLUTION NO. 041123-6-B

AN RESOLUTION OF THE CITY COUNCIL OF THE CITY OF **GEORGETOWN**, TEXAS, ADOPTING CITY THE OF **GEORGETOWN DROUGHT CONTINGENCY PLAN UNDER TEXAS** WATER CODE CHAPTER TITLE 11 AND **30 TEXAS ADMINISTRATIVE** CODE CHAPTER 288: REPEALING **CONFLICTING RESOLUTIONS AND ORDINANCES; INCLUDING A** SEVERABILITY CLAUSE; AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, under Texas Water Code Chapter 11, and Title 30 Texas Administrative Code Chapter 288, retail public water suppliers with 3,300 or more connections are required to develop, implement, and submit updated Drought Contingency Plans to the Texas Commission on Environmental Quality every five years; and

WHEREAS, the purpose of a Drought Contingency Plan is to help the City identify and cope with temporary shortages in water supply due to factors related to water availability, water use or demand, water treatment capacity, and other factors such as system outages, natural disasters, and other emergencies or conditions that warrant implementation of temporary reductions in water usage; and

WHEREAS, the City re-adopted its Drought Contingency Plan in 2019 as required by state law, but given the City's recent amendments to its Code of Ordinances affecting Chapters 1.15, 13.15 and 13.16, and changes in the Brazos River Authority's Drought Contingency Plan that affect the City but were not clearly stated in the 2019 update, there is a need to update the City's Drought Contingency Plan at this time; and

WHEREAS, the City Council has determined that approving and adopting the attached Drought Contingency Plan will comport with state law and reflect current conditions; and

WHEREAS, the City Council finds that adopting the attached Drought Contingency Plan will be in the best interest of the public and compliant with applicable State law, as set out herein.

#### NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GEORGETOWN, TEXAS:

Section 1. The meeting at which this resolution was approved was conducted in compliance with the Texas Open Meetings Act, Texas Government Code, Chapter 551.

Section 2. The facts and recitations contained in the preamble of this resolution are hereby found and declared to be true and correct and are incorporated by reference herein and expressly made a part hereof, as if copied verbatim.

Section 3. The Drought Contingency Plan attached hereto as **Exhibit A** is hereby adopted.

Resolution Number: 041123-6.B Subject: Vpdating Draught Contingency Plan Date Approved: April 2023

Page 1 of 2

Section 4. All resolutions and ordinances that conflict with the provisions of this resolution are hereby repealed, and all other resolutions and ordinances of the City not in conflict with the provisions of this resolution shall remain in full force and effect.

Section 5. If any provision of this resolution, or application thereof, to any person or circumstance, shall be held invalid, such invalidity shall not affect the other provisions, or application thereof, of this resolution, which can be given effect without the invalid provision or application, and to this end the provisions of this resolution are hereby declared to be severable.

Section 6. The Mayor is hereby authorized to sign this resolution and the City Secretary to attest. This resolution shall become effective and be in full force and effect immediately in accordance with the provisions of the City Charter of the City of Georgetown.

PASSED AND APPROVED on the 17 of April, 2023.

**ATTEST:** 

Robyn Densmore, City Secretary

**APPROVED AS TO FORM:** 

e Masson, City Attorney

Resolution Number: 041123-6.B Subject: Vpdating Drought Contingency Pbun Date Approved: April 11, 2023

THE CITY OF GEORGETOWN: Josh Schroeder, Mayor