

**ORDINANCE NO. 2020-07**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF BASTROP, TEXAS, ADOPTING A WATER CONSERVATION PLAN IN ACCORDANCE WITH TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AND TEXAS WATER DEVELOPMENT BOARD REGULATIONS; PROVIDING FOR: FINDINGS OF FACT, ENACTMENT, REPEALER, SEVERABILITY, EFFECTIVE DATE, AND PROPER NOTICE AND MEETING.**

**WHEREAS**, the City of Bastrop, Texas, recognizes that the amount of water available to the City and its water utility customers is limited and subject to depletion during periods of extended drought; and

**WHEREAS**, the City recognizes that due to natural limitations, drought conditions, system failures, and other acts of God which may occur, the City cannot guarantee an uninterrupted water supply for all purposes at all times; and

**WHEREAS**, the Texas Water Code and the regulations of the Texas Commission on Environmental Quality ("TCEQ") require that the City adopt a Water Conservation Plan; and

**WHEREAS**, Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2 of the Texas Administrative Code sets forth the TCEQ guidelines and requirements governing the development of water conservation plans for public water suppliers; and

**WHEREAS**, in accordance with 30 T.A.C. § 288.2, the City has devised a strategy or combination of strategies for reducing the volume of water withdrawn from its water supply source, for maintaining and improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water; and

**WHEREAS**, the City Council of the City of Bastrop has determined that it is in the best interest of the citizens of Bastrop, Texas to adopt a Water Conservation Plan; and

**WHEREAS**, pursuant to Chapter 54 of the Local Government Code, the City is authorized to adopt such Ordinances necessary to preserve and conserve its water resources; and

**WHEREAS**, the City Council of the City of Bastrop desires to adopt the attached Water Conservation Plan as official City policy for the conservation of water.

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

**Section 1. FINDINGS OF FACT** The foregoing recitals are incorporated into this Ordinance by reference as findings of fact as if expressly set forth herein.

**Section 2. ENACTMENT** The City of Bastrop Texas Water Conservation Plan attached hereto as Exhibit "A" and made part hereof for all purposes be, and the same is hereby, adopted as the official policy of the City. In addition to filing with the Texas Water Development Board, a copy of this Water Conservation Plan shall be maintained in the City's files and placed on the City website in order that the public may have ready access to the Plan.

**Section 3. REPEALER** Ordinance 2010-8 and Ordinance 2016-8, adopted on May 11, 2010 and April 26, 2016 respectively, are hereby repealed. All other ordinances, resolutions, or

parts thereof, that are in conflict or inconsistent with any provision of this Ordinance are hereby repealed to the extent of such conflict, and the provisions of this Ordinance shall be and remain controlling as to the matters regulated, herein.

**Section 4. SEVERABILITY** Should any of the clauses, sentences, paragraphs, sections or parts of this Ordinance be deemed invalid, unconstitutional, or unenforceable by a court of law or administrative agency with jurisdiction over the matter, such action shall not be construed to affect any other valid portion of this Ordinance.

**Section 5. EFFECTIVE DATE** This Ordinance shall be effective immediately upon passage.

**Section 6. PROPER NOTICE & MEETING** It is hereby officially found and determined that the meeting at which this Ordinance was passed was open to the public, and that public notice of the time, place and purpose of said meeting was given as required by the Open Meetings Act, Texas Government Code, Chapter 551.

**READ AND ACKNOWLEDGED** on First Reading on the 24th day of March 2020.

**READ & APPROVED** on Second Reading on the 28th day of April 2020.

**APPROVED:**

  
\_\_\_\_\_  
Connie B. Schroeder, Mayor

**ATTEST:**

  
\_\_\_\_\_  
Ann Franklin, City Secretary

**APPROVED AS TO FORM:**

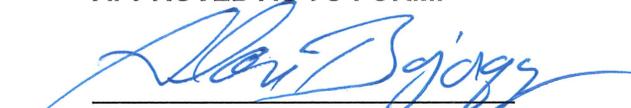
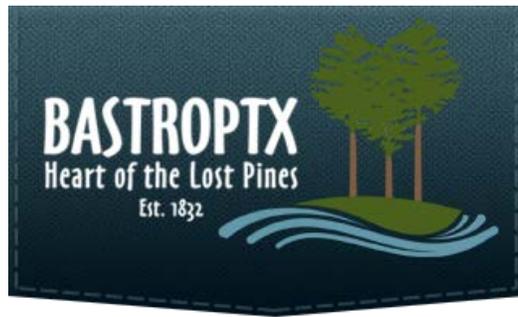
  
\_\_\_\_\_  
Alan Bojorquez, City Attorney

Exhibit A  
[2020 Water Conservation Plan]

# CITY OF BASTROP

## WATER CONSERVATION PLAN



Adopted: March 24, 2020

City Ordinance No. 2020-07

Prepared by:



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## 1. Introduction and Objectives

### 1.1 Purpose

Water supply has always been a key issue in the development of Texas. In recent years, the increasing population and economic development within the Texas Water Development Board (TWDB) Lower Colorado Water Planning Region (Region K) have led to growing demands for water supplies. Additional supplies to meet future demands can be expensive and difficult to secure. Extending current supplies will delay the need for new supplies, minimize environmental impacts associated with developing new supplies, and delay the relatively high cost of additional water supply development. Therefore, it is imperative that we make efficient use of existing supplies in order to make them last as long as possible.

The City of Bastrop has developed this Water Conservation Plan (WCP) in accordance with the requirements provided in 31 Texas Administrative Code (TAC) §363 and guidance provided by the Texas Water Development Board (TWDB). This plan supersedes the previous plan adopted in August 2016. The objectives of this Water Conservation Plan are to:

- Reduce water consumption from the levels that would prevail without conservation efforts;
- Reduce loss and waste of water;
- Improve efficiency in the use of water;
- Encourage efficient outdoor water use;
- Document the level of recycling and reuse in the water supply; and
- Extend the life of current water supplies/facilities by reducing the rate of growth in demand.

## 2. Regulatory Considerations

### 2.1 Rules Governing Water Conservation Plans and Applicability

Rules and requirements pertaining to WCPs are published by the Texas Commission on Environmental Quality (TCEQ) and the TWDB under 30 TAC §288 and 31 TAC §363, respectively.

The TCEQ requires that a WCP be prepared and submitted for entities holding a surface water right of 1,000 acre-feet or more for municipal, industrial, and other non-irrigation uses, or entities holding a surface water right of 10,000 acre-feet or more for irrigation uses.

The TWDB requires that each retail public utility that provides potable water service to 3,300 or more connections submit a WCP to the TWDB.

The City of Bastrop is not a surface water right holder but does have more than 3,300 connections. As such, this plan is being submitted to satisfy the requirements by the TWDB as outlined in 31 TAC §363.

## 2.2 Minimum Plan Requirements

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

- Utility Profile
- Specific, Quantifiable Targets and Goals
- Schedule for Plan Implementation to Achieve Targets
- Monitoring Plan Effectiveness
- Record Management System
- Accurate Master Metering for Production
- Universal Metering
- Determination and Control of Water Loss
- Leak Detection, Repair, and Water Loss Accounting
- Public Education and Information Program
- Drought Contingency Plan
- Non-Promotional Water Rate Structure
- Requirement for Water Conservation Plans by Wholesale Customers
- Coordination with Regional Water Planning Groups
- Means of Implementation and Enforcement
- Reporting Requirements
- Provisions Review and Update of Plan

In addition to these minimum plan requirements, a WCP may also include any other water conservation practice, method, or technique that the applicant deems appropriate.

## 3. Utility Profile

The following is a brief summary of the City of Bastrop's Utility Profile. A detailed summary of the utility profile is provided in Appendix A.

### 3.1 Water System

The City of Bastrop's Water and Wastewater Department manages a water distribution service area covering an extent of approximately 11 square miles in area and serving a population of approximately 8,510 people. The city has approximately 4,100 retail connections. A map depicting the boundaries of the City's Water Certificate of Convenience and Necessity (CCN) is included in Appendix B. Connections within the system are categorized and broken out by percentage of the total water usage as follows: single family residential (66%), multi-family residential (18%), and commercial (17%). The City provides drinking water to its customers from groundwater produced from the City's seven (7) active groundwater wells, capable of producing up to 6.91 million gallons per day (MGD). This groundwater is treated at the City's two (2) water treatment plant facilities before entering the distribution system. Customers are served through a network of approximately 70 miles of transmission and distribution lines, ranging in diameter from 2 through 16 inches.

The City is currently in the planning and design phase for a new groundwater treatment plant facility utilizing Carrizo Aquifer groundwater. The new treatment plant facility is being designed for a phased

build-out approach to cover the City’s projected water demands for the future. Once completed, the new plant will replace the existing water treatment plant facility.

### 3.2 Wastewater System

Raw wastewater in the City is conveyed through a network of over 54 miles of wastewater collection lines and numerous lift stations to the City’s wastewater treatment plant facility. The facility is located on the south end of Water Street and is comprised of two (2) treatment plant units which discharge treated effluent to the Colorado River under TPDES permit WQ0011076001. The City is also under contractual obligations to treat up to 200,000 gallons per day (GPD) of wastewater flows from Bastrop County Water Control and Improvement District #2 (BCWCID #2). In total for 2018, the wastewater treatment plant facility treated an average daily flow of approximately 0.97 MGD; the design capacity of the wastewater treatment facility is 1.4 MGD. The City is currently in the planning and design phase for a new wastewater treatment plant facility. The new wastewater treatment plant facility is being designed for a phased build-out approach to cover the City’s projected wastewater demands for the future. Once completed, the new plant will replace the existing wastewater treatment plant facility.

The City has received authorization from the TCEQ for reuse of Type I and Type II wastewater effluent from the City’s wastewater treatment plant facility. Historically under this authorization, the City has provided reuse water to support local construction activities and operations at the City’s wastewater treatment facility.

## 4. Specification of Water Conservation Targets and Goals

The purpose of this Water Conservation Plan is to provide a framework to reduce long-term demand on limited water resources by encouraging more efficient water use practices in the City of Bastrop. TWDB rules require that the plan contain specific, quantified 5-year and 10-year targets for water savings which are to include goals for water loss programs and goals for municipal use in total and residential gallons per capita per day (GPCD).

The City is situated in a high-growth corridor and anticipates experiencing continued economic growth. The primary goals of this plan are to reduce total and residential GPCD demand. The City’s 2016 Water Conservation Plan noted the historic 5-year average for total GPCD and residential GPCD use at that time was 178 and 95 GPCD, respectively. Additionally, the plan included the 5-year and 10-year goals for total GPCD and residential GPCD by 2020 and by 2025 as shown in Table 4.1.

Table 4.1  
City of Bastrop 2016 Water Conservation Plan – Historic and Target GPCD Use

	<b>Historic 5-Year Average</b>	<b>5-Year Goal (2020)</b>	<b>10-Year Goal (2025)</b>
Total GPCD	178	169	161
Residential GPCD	95	94	93
Water Loss GPCD	21	18	16
Water Loss %	12%	11%	10%

Current water use data show that the historic 5-year averages for total GPCD, residential GPCD, and water loss are at or below the 5-year goals established in the City’s 2016 Water Conservation Plan.

The City is planning to continue reducing their total GPCD to align with the guidance provided in the 2016 Region K Regional Water Plan whereby long-term total GPCD demand is reduced to less than 140 gallons per capita per day. The current 5-year averages for each component are used as a new baseline for projecting revised 5-year and 10-year goals under this current plan. Targets for future total GPCD are developed using the same methodology incorporated into the 2016 Region K Regional Water Plan for municipal conservation, whereby total GPCD is reduced by 5% for each coming decade until a total GPCD of 140 is achieved. Similarly, targets for future residential GPCD are also developed based on a goal of achieving a 5% reduction each decade. Future water loss targets are developed to achieve a water loss percentage of 10% or less.

Table 4.2  
City of Bastrop 2019 Water Conservation Plan – Historic and Target GPCD Use

	<b>Historic 5-Year Average</b>	<b>Baseline</b>	<b>5-Year Goal (2024)</b>	<b>10-Year Goal (2029)</b>
Total GPCD	169	169	165	161
Residential GPCD	80	80	78	76
Water Loss GPCD	19	19	17	16
Water Loss %	11%	11%	10%	10%

\*\*Table also provided in Appendix C.

## 5. Water Conservation Plan Efficiency / Effectiveness Monitoring

The City will evaluate the efficiency and effectiveness of this plan’s 5-year and 10-year goals for water use reductions on an annual basis. As the City completes its annual Texas Water Development Board Water Use Survey and water loss audit, the data used will be compared against the targets for total and residential GPCD and water losses.

## 6. Water Conservation Management and Strategies

### 6.1 Records Management System

The City administers a comprehensive records management system which accounts for water use and use characteristics throughout the water system. It also allows for the separation of aggregate water sales and water usage characteristics into customer-specific categories.

In 2015, the City of Bastrop completed a city-wide upgrade to an Advanced Metering Infrastructure (AMI) system. This system has allowed the city to begin tracking information in real-time and has increased the accuracy of reporting data. The pumpage and meter readings are compiled daily, monthly, and annually on spreadsheets which are reviewed by City representatives and are used to compile annual reports required by state agencies. These water records include:

- Raw water pumpage
- Backwash recycle waters
- Treated water pumped to the distribution system (total and by pressure zone)

- Water sold by user classifications
  - Single family residential
  - Multi-family residential
  - Commercial
  - Industrial
  - Institutional
  - Wholesale water
- Total water sold
- Water metered but not billed
- Miscellaneous accounted for water

Miscellaneous accounted for water includes such categories as tank overflows, pump testing, water leak repair summary reports, fire hydrant flushing, flush valve usage, fire department usage, etc. The non-revenue water and water loss is compiled and reviewed on a monthly and annual basis.

## 6.2 Accurate Master Metering for Production

Raw water produced from the City's seven (7) groundwater wells are individually metered at the wellhead. Treated water entering distribution is monitored through flow meters at each of the water treatment plants. Flow meter calibrations are performed, at a minimum, on an annual basis, and more frequently if needed. Calibrations of these meters are performed by a qualified firm specializing in this work, and copies of the calibration log sheets are maintained by the Water and Wastewater Department. All meters monitoring diversion and production flows are in accordance with American Water Works Association (AWWA) standards and calibrated to maintain a minimum accuracy of +/- 2.0%.

## 6.3 Universal Metering

The ability to meter all water distribution and consumption uses allows the City to closely account for all water use and water losses, and to prevent unauthorized use. All service connections in the City are metered via an Advanced Metering Infrastructure (AMI) as of 2015. All residential, commercial, and municipal structures; swimming pools; and parks operated by the City are metered via AMI.

AMI allows for much more accurate accounting data which reduces non-revenue water issues. The following are some of the advantages of the AMI system:

- Instant meter reading allows for concurrent pumped volumes versus retail water record data, which reduces accounting inaccuracies
- Allows for identification of potential water leaks on the customer side of each meter
- Increased availability of data allows for additional customer support options

The City will continue to provide a preventative maintenance program for its water meters, wherein regular scheduled testing, repairs, and replacement are performed as follows:

- A representative number of 2-inch and smaller residential meters are tested annually to ensure continued accuracy
- Water meters 3-inch and larger are tested once per year;

- Residential water meters shall be tested in accordance with the AWWA recommendations found in Standard C700 and AWWA M6, *Water Meters – Selection, Installation, Testing, and Maintenance Manual*

## 6.4 Tracking and Controlling Water Loss

### 6.4.1 Water Loss Control Measures

The goal of the City's water loss control program is to limit system water losses to not exceed 15% of total annual treated water entering distribution and to ultimately reduce unaccounted-for water to a level of 10% or less. Unaccounted-for water includes unbilled authorized usage and unbilled unauthorized usage. Unbilled authorized usage includes water used for fighting fires, flushing water lines, etc. Unbilled unauthorized usage includes water lost to leaks, theft, etc.

In some cases, the age of water lines and associated degradation due to age may be contributing to both unbilled authorized and unauthorized usages. Due to age of certain water lines within the system, these lines are typically scheduled for more frequent flushing; these lines generally have a higher probability of leakage due to their age as well. In order to meet the goals set forth in this plan, the City has implemented programs including routine water audits, a program of leak detection and repair, and meter testing and accuracy calibration.

The Water and Wastewater Department generates a monthly water loss report that compares metered production with metered consumption as well as accounted-for and unaccounted-for losses. This report provides an effective tracking system of water loss. The City also completes a detailed water system audit conforming to TWDB guidelines each year. The water system audit determines the volume of actual water loss, the identification of water loss sources, the status and condition of primary water meters, an analysis of water line breaks, an evaluation of underground leakage potential, and provides recommendation for meter replacement.

### 6.4.2 Leak Detection and Repair

The City administers leak detection and repair programs for its water distribution system. Approximately 175 acoustic magnetic leak detection units, which monitor the system nightly, are installed throughout the City's distribution system. The City runs reports to evaluate the data collected from the leak detection units and identify potential locations for leaks; when leaks are apparent, the City dispatches repair crews as needed.

Additionally, the City has a program that features a work order prioritization system for leaks needing repair as well as an inventory of equipment and materials needed to promptly repair all detected or reported leaks. The City has also implemented a rehabilitation program to upgrade its aging water distribution system and address areas of the system with a high volume of leaks. This program relies on findings identified in monthly loss reports as well as the leak detection programs described above.

## 6.5 Public Education and Information Program

The City's public education program makes thousands of contacts, both direct and indirect, every year through presentations, community fairs, plant tours, utility bill inserts, newspaper and radio ads, and the City's website. The City promotes water conservation issues by informing the public in the following ways:

- Making water conservation information available to new customers

- Making residential water audits available to all customers upon request
- Providing water conservation information to all customers upon request, through the City's website, and through social media outlets
- Coordinating educational presentations, lectures, and demonstrations for schools, civic groups, and the general public
- Providing exhibits at public events held throughout the year
- Publishing water conservation information on a regular basis in the City's utility bill insert or other written form
- Participating in community environmental education activities with local organizations to promote water conservation education
- Supporting annual events and demonstrations relating to water conservation and environmental issues that affect water supply and quality

### 6.6 Plumbing Code and Retrofit Program

The City has adopted the International Plumbing Code, which requires the use of water-saving, Ultra-Low Flow (ULF) fixtures to be installed in new construction and in the replacement of plumbing in existing structures.

The City educates the residents, plumbers, and contractors on the benefits of retrofitting existing facilities with water-saving devices through its public education program.

### 6.7 Landscape Water Management

The City provides information about the methods and benefits of water-conserving landscaping practices and devices through public education to homeowners, business owners, landscape architects and designers, and irrigation professionals. The following methods are encouraged:

- The use of Xeriscape™ and "Water Wise" landscaping techniques, including drought-tolerant plants and grasses, for landscaping new homes and commercial areas
- The use of drip irrigation systems, when possible, or other water-conserving irrigation systems that utilize efficient sprinklers and considerations for prevailing winds
- Ensuring that ornamental fountains, and other similar water features, are designed to recycle water and use minimal amounts of water
- Working with area landscape supply businesses and nurseries to encourage the sale of locally-adapted, drought-tolerant plants and grasses along with efficient irrigation systems, and to promote the use of these types of water conserving strategies mentioned through demonstrations and advertisements

### 6.8 Water Use Restrictions

The City has implemented, through its Drought Contingency Plan (August 2019), permanent water use restrictions that apply year-round, regardless of drought stage. Refer to the Drought Contingency Plan in Appendix D for detailed information regarding permanent water use restrictions.

### 6.9 Water Pressure Reduction

As dictated by location within the water distribution system, each service connection incorporates a pressure-reducing valve to limit service connection pressure where system pressure exceeds 85 psig.

### 6.10 Reuse Water

The City of Bastrop has received authorization from the TCEQ for reuse of Type I and Type II wastewater effluent from the City’s wastewater treatment plant facility. Historically under this authorization, the City has provided reuse water to support local construction activities and operations at the City’s wastewater treatment facility.

### 6.11 Non-Promotional Water Rate Structure

The City utilizes an inclining water rate structure to encourage customers to reduce both peak and overall water usage, while at the same time fairly allocating cost of service to each customer class. Under an inclining rate structure, the rate per thousand gallon increases as the amount of water used increases. The current rate structure charges a minimum monthly service charge based on meter size, plus a fee based on consumption. Table 6.11.1 provides the rate structure for the minimum monthly service charge, inside and outside the city limits, based on a customer’s meter size. Table 6.11.2 provides the rate structure for the consumption fee, inside and outside the city limits, based on every 1,000 gallons of the total number of gallons a customer consumes each month.

Table 6.11.1  
Minimum Base Charge by Meter Size

Meter Size	Residential and Commercial	
	Inside City Limits	Outside City Limits
3/4"	\$ 27.72	\$ 41.59
1"	\$ 47.13	\$ 70.69
1-1/2"	\$ 79.47	\$ 119.22
2"	\$ 118.28	\$ 177.43
3"	\$ 221.78	\$ 332.68
4"	\$ 255.07	\$ 507.34
6"	\$ 661.68	\$ 992.48

Table 6.11.2  
Consumption Fee per 1,000 gallons Used

Consumption (gallons)	Residential and Commercial	
	Charge (\$/1,000 gallons)	
	Inside City Limits	Outside City Limits
0 - 3,000	\$ 2.85	\$ 4.13
3,001 - 5,000	\$ 3.04	\$ 4.42
5,001 - 10,000	\$ 3.22	\$ 4.70
10,001 - 20,000	\$ 3.42	\$ 4.98
20,001 - 50,000	\$ 3.69	\$ 5.39
> 50,000	\$ 3.87	\$ 5.66

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This rate structure will be reviewed on a regular basis to ensure that the rates adequately recover cost of service and conform to the goals of this plan. In order to meet critical needs of the City's water system, it is the City's intention to increase the rates for minimum and volume charges each year as outlined by separate ordinances.

## 7. Wholesale Water Contracts

The City, as part of contracts for sale of water, will require any other entity re-selling water to adopt applicable provisions of the City's WCP or have a plan in effect, previously adopted, meeting the basic requirements of 30 TAC §288. These provisions will be through contractual agreement prior to the sale of any water to the water re-seller. It should be noted that at this time, the City does not have any wholesale water contracts.

## 8. Coordination with Regional Water Planning Group

The City's water service area is located within the Region K (Lower Colorado Region) planning area. The City has provided a copy of this plan to the Region K Group. A copy of the submission letter is provided in Appendix E of this plan.

## 9. Water Conservation Plan Adoption and Enforcement

This Water Conservation Plan was adopted by the Bastrop City Council; a copy of the corresponding ordinance is included in Appendix F of this plan. The City Manager, or designee thereof, will be responsible for the implementation and enforcement of the plan and educating all City staff personnel. Implementation of the plan by City staff shall begin immediately in 2020 upon adoption.

## 10. Reporting Requirements

Each entity required to submit a WCP to the TWDB shall file a report annually, no later than May 1<sup>st</sup>, on the entity's progress in implementing each of the minimum requirements of the WCP. The annual report is to be submitted electronically to the TWDB, as described at:

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

## 11. Plan Review and Update

The City will review and update this Water Conservation Plan based on an assessment of the 5-year and 10-year targets and any other new or updated information. The City will review and update the next revision of its WCP every five (5) years to coincide with the regional water planning group.

# **APPENDIX A**

City of Bastrop Utility Profile  
TWDB Form No. 1965-R

# UTILITY PROFILE FOR RETAIL WATER SUPPLIER

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

## CONTACT INFORMATION

Name of Utility: City of Bastrop

Public Water Supply Identification Number (PWS ID): TX0110001

Certificate of Convenience and Necessity (CCN) Number: Water - 11198; Sewer - 20466

Surface Water Right ID Number: N/A

Wastewater ID Number: WQ0011076001

Completed By: Curtis Hancock Assistant Director  
Title: Public Works

Physical: 300 Water Street  
Address: Mailing: P.O. Box 427 City: Bastrop Zip Code: 78602

Email: chancock@cityofbastrop.org Telephone Number: 512-332-8960

Date: 12/16/2019

Regional Water Planning Group: Region K [Map](#)  
Lost Pines

Groundwater Conservation District: GCD [Map](#)

Check all that apply:

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

# Section I: Utility Data

## A. Population and Service Area Data

1. Current service area size in square miles: 11  
 (Attach or email a copy of the service area map.)
  
2. Provide historical service area population for the previous five years, starting with the most current year.

Year	Historical Population Served By Retail Water Service	Historical Population Served By Wholesale Water Service	Historical Population Served By Wastewater Service
2014	7,716	0	7,092
2015	7,834	0	7,228
2016	8,080	0	7,363
2017	8,391	0	7,714
2018	8,508	0	7,841

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

Year	Projected Population Served By Retail Water Service	Projected Population Served By Wholesale Water Service	Projected Population Served By Wastewater Service
2020	9,653	0	10,540
2030	13,088	0	15,210
2040	17,553	0	22,320
2050	23,603	0	27,466
2060	31,775	0	33,108

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

Historical Population Served by Retail Water Service - based on the reported population served in the City's annual TWDB Water Use Surveys.

Projected Population Served by Retail Water Service - equal to the population projections provided in the Region K 2016 Regional Water Plan.

Historical Population Served by Wastewater Service - calculated by using internal billing reports that show number of sewer connections; added multi-family units; and then multiplied by 2.49 (population equivalent provided by TCEQ). For example: Dec. 2014 residential sewer customers is 2,130. Multi-family units are 718. So,  $(2130+718) * 2.49 = 7,092$ .

Projected Population Served by Wastewater Service - based on design info. for new WWTP.

### B. System Input

Provide system input data for the previous five years.

Total System Input = Self-supplied + Imported – Exported

Year	Self-supplied Water in Gallons	Purchased/Imported Water in Gallons	Exported Water in Gallons	Total System Input	Total GPCD
2014	485,759,635	0	0	485,759,635	172
2015	467,373,992	0	0	467,373,992	163
2016	485,676,056	0	0	485,676,056	165
2017	519,172,553	0	0	519,172,553	170
2018	542,252,000	0	0	542,252,000	175
<b>Historic 5-year Average</b>	500,046,847	0	0	500,046,847	169

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

1. Designed daily capacity of system \_\_\_\_\_ **8,496,000 gallons** per day.

2. Storage Capacity:  
 Elevated \_\_\_\_\_ **1,250,000 gallons**  
 Ground \_\_\_\_\_ **1,510,000 gallons**

3. List all current water supply sources in gallons.

Water Supply Source	Source Type*	Total Gallons
Alluvial aquifer	Ground	6,331,700
Simsboro aquifer	Ground	576,000
	Choose One	

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

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

## D. Projected Demands

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

Year	Population	Water Demands (gallons)
2020	9,653	595,261,662
2021	9,997	616,474,758
2022	10,341	637,687,853
2023	10,685	658,900,949
2024	11,029	680,114,045
2025	11,373	701,327,140
2026	11,717	722,540,236
2027	12,061	743,753,331
2028	12,405	764,966,427
2029	12,749	786,179,523

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

Population - The current Region K data for population projections (current planning cycle) for the City of Bastrop was used to determine population growth over the next decade. An annual average growth rate of 344 people per year was calculated based on the projected 2020 and 2030 populations.

Water Demand - estimated using the historic 5-year average for Total GPCD. Projected water demands do not account for/incorporate water conservation goals provided in subsequent sections of this Utility Profile.

### E. High Volume Customers

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

Retail Customer	Water Use Category*	Annual Water Use	Treated or Raw
Bastrop County Law Center	Commercial	111,250	Treated
Bastrop Walnut Ridge	Commercial	86,714	Treated
Bucees	Commercial	63,890	Treated
Texas Parks and Wildlife	Commercial	51,988	Treated
Brite and Shiny Carwash	Commercial	42,564	Treated

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

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

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

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

### F. Utility Data Comment Section

Provide additional comments about utility data below.

Water System Description - The City of Bastrop's Water and Wastewater Department manages a water distribution service area covering an extent of approximately 11 square miles in area and serving a population of approximately 8,510 people. The city has approximately 4,100 retail connections. Connections within the system are categorized and broken out by percentage of the total water usage as follows: single family residential (66%), multi-family residential (18%), and commercial (17%). The City provides drinking water to its customers from groundwater produced from the City's seven (7) active groundwater wells capable of producing up to 6.91 million gallons per day (MGD). This groundwater is treated at the City's two (2) water treatment plant facilities before entering the distribution system. Customers are served through a network of approximately 70 miles of transmission and distribution lines ranging in size from 2-inch through 16-inch in diameter.

## Section II: System Data

### A. Retail Connections

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

Water Use Category*	Active Retail Connections			
	Metered	Unmetered	Total Connections	Percent of Total Connections
Residential – Single Family	2,699		2,699	66%
Residential – Multi-family (units)	718		718	18%
Industrial	0		0	0%
Commercial	680		680	17%
Institutional	0		0	0%
Agricultural	0		0	0%
<b>TOTAL</b>	4,097	0	4,097	

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

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

Water Use Category*	Net Number of New Retail Connections				
	2014	2015	2016	2017	2018
Residential – Single Family	73	47	99	125	47
Residential – Multi-family (units)	-80	0	0	0	0
Industrial					
Commercial	50	-36	-13	22	21
Institutional					
Agricultural					
<b>TOTAL</b>	43	11	86	147	68

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

## B. Accounting Data

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

Water Use Category*	Total Gallons of Retail Water				
	2014	2015	2016	2017	2018
Residential - Single Family	145,211,834	209,761,800	183,589,000	203,218,100	201,295,300
Residential – Multi-family	43,788,666	43,790,500	51,989,727	53,658,627	47,980,915
Industrial					
Commercial	209,547,600	184,368,600	201,496,773	193,500,273	205,569,685
Institutional					
Agricultural					
<b>TOTAL</b>	<b>398,548,100</b>	<b>437,920,900</b>	<b>437,075,500</b>	<b>450,377,000</b>	<b>454,845,900</b>

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

## C. Residential Water Use

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

Water Use Category*	Residential GPCD				
	2014	2015	2016	2017	2018
Residential - Single Family	52	73	62	66	65
Residential – Multi-family	16	15	18	18	15

## D. Annual and Seasonal Water Use

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

Month	Total Gallons of Treated Retail Water				
	2014	2015	2016	2017	2018
January	28,658,100	36,296,100	29,038,500	31,328,200	32,522,100
February	27,614,200	23,927,220	30,748,800	27,855,500	27,539,900
March	28,000,100	24,531,200	31,783,300	32,633,500	31,856,300
April	28,308,000	25,865,900	30,188,500	35,023,200	36,241,700
May	37,542,200	26,702,700	33,474,500	45,815,500	39,369,700
June	36,101,900	33,075,000	36,932,000	30,454,500	46,267,600
July	34,453,000	39,079,800	50,794,800	54,157,100	52,789,600
August	43,701,800	62,474,300	42,431,700	49,259,800	53,586,500
September	43,595,200	49,677,400	40,760,500	43,596,400	41,221,500
October	31,453,500	53,865,700	38,730,100	48,277,000	31,964,300
November	32,102,500	30,874,100	33,607,300	33,510,700	31,748,900
December	26,117,300	27,767,500	28,557,000	29,501,500	29,147,800
<b>TOTAL</b>	<b>397,647,800</b>	<b>434,136,920</b>	<b>427,047,000</b>	<b>461,412,900</b>	<b>454,255,900</b>

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

Month	Total Gallons of Raw Retail Water				
	2014	2015	2016	2017	2018
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
<b>TOTAL</b>	0	0	0	0	0

3. Summary of seasonal and annual water use.

Water Use	Seasonal and Annual Water Use					Average in Gallons
	2014	2015	2016	2017	2018	
Summer Retail (Treated + Raw)	114,256,700	134,629,100	130,158,500	133,871,400	152,643,700	133,111,880 5yr Average
TOTAL Retail (Treated + Raw)	397,647,800	434,136,920	427,047,000	461,412,900	454,255,900	434,900,104 5yr Average

**E. Water Loss**

Provide Water Loss data for the previous five years.

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

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

Year	Total Water Loss in Gallons	Water Loss in GPCD	Water Loss as a Percentage
2014	81,758,785	29	17%
2015	23,610,917	8	5%
2016	36,023,508	12	7%
2017	56,537,525	18	11%
2018	80,627,950	26	15%
<b>5-year average</b>	55,711,737	19	11%

### F. Peak Water Use

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

Year	Average Daily Use (gal)	Peak Day Use (gal)	Ratio (peak/avg)
2014	1,234,000	1,714,000	1.39
2015	1,271,000	2,323,000	1.83
2016	1,315,000	2,314,000	1.76
2017	1,411,000	2,817,000	2.00
2018	1,484,000	2,546,000	1.72

### G. Summary of Historic Water Use

Water Use Category	Historic 5-year Average	Percent of Connections	Percent of Water Use
Residential SF	188,615,207	66%	0%
Residential MF	48,241,687	18%	0%
Industrial	0	0%	0%
Commercial	198,896,586	17%	0%
Institutional	0	0%	0%
Agricultural	0	0%	0%

### H. System Data Comment Section

Provide additional comments about system data below.

## Section III: Wastewater System Data

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

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

1. Design capacity of wastewater treatment plant(s): 1,400,000  
**gallons** per day.
2. List the active wastewater connections by major water use category.

Water Use Category*	Active Wastewater Connections			
	Metered	Unmetered	Total Connections	Percent of Total Connections
Municipal	2,431		2,431	81%
Industrial			0	0%
Commercial	561		561	19%
Institutional			0	0%
Agricultural			0	0%
<b>TOTAL</b>	2,992	0	2,992	

2. What percent of water is serviced by the wastewater system? 96%
3. For the previous five years, enter the number of gallons of wastewater that was treated by the utility.

Month	Total Gallons of Treated Wastewater				
	2014	2015	2016	2017	2018
January	22,612,000	26,056,000	25,286,000	27,621,000	26,793,000
February	21,223,000	21,857,000	23,675,000	25,593,000	24,615,000
March	24,298,000	26,743,000	27,901,000	29,760,000	28,826,000
April	23,662,000	27,420,000	31,428,000	28,458,000	27,507,000
May	27,146,000	34,613,000	34,914,000	30,297,000	30,642,000
June	26,962,000	29,418,000	29,105,000	28,541,000	30,204,000
July	25,623,000	29,701,000	29,646,000	28,679,000	30,830,000
August	26,275,000	28,918,000	34,353,000	34,656,000	31,679,000
September	26,446,000	26,346,000	29,156,000	28,344,000	30,748,000
October	26,243,000	29,864,000	27,969,000	28,158,000	31,608,000
November	24,195,000	28,349,000	26,256,000	26,679,000	28,878,000
December	24,227,000	26,958,000	29,076,000	27,090,000	30,244,000
<b>TOTAL</b>	298,912,000	336,243,000	348,765,000	343,876,000	352,574,000

4. Can treated wastewater be substituted for potable water?

Yes  No

**B. Reuse Data**

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

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

**C. Wastewater System Data Comment**

Provide additional comments about wastewater system data below.

Wastewater System Description - Raw wastewater in the City is conveyed through a network of over 54 miles of wastewater collection lines and numerous lift stations to the City’s wastewater treatment plant facility. The facility is located on the south end of Water Street and is comprised of two (2) treatment plant units which discharge treated effluent to the Colorado River under TPDES permit WQ0011076001. The City is also under contractual obligations to treat up to 200,000 gallons per day (GPD) of wastewater flows from Bastrop County Water Control and Improvement District #2 (BCWCID #2). In total for 2018, the wastewater treatment plant facility treated an average daily flow of approximately 0.97 MGD; the design capacity of the wastewater treatment facility is 1.4 MGD. The City is currently in the planning and design phase for a new wastewater treatment plant facility. The new wastewater treatment plant facility is being designed for a phased build-out approach to cover the City’s projected wastewater demands for the future. Once completed, the new plant will replace the existing wastewater treatment plant facility.

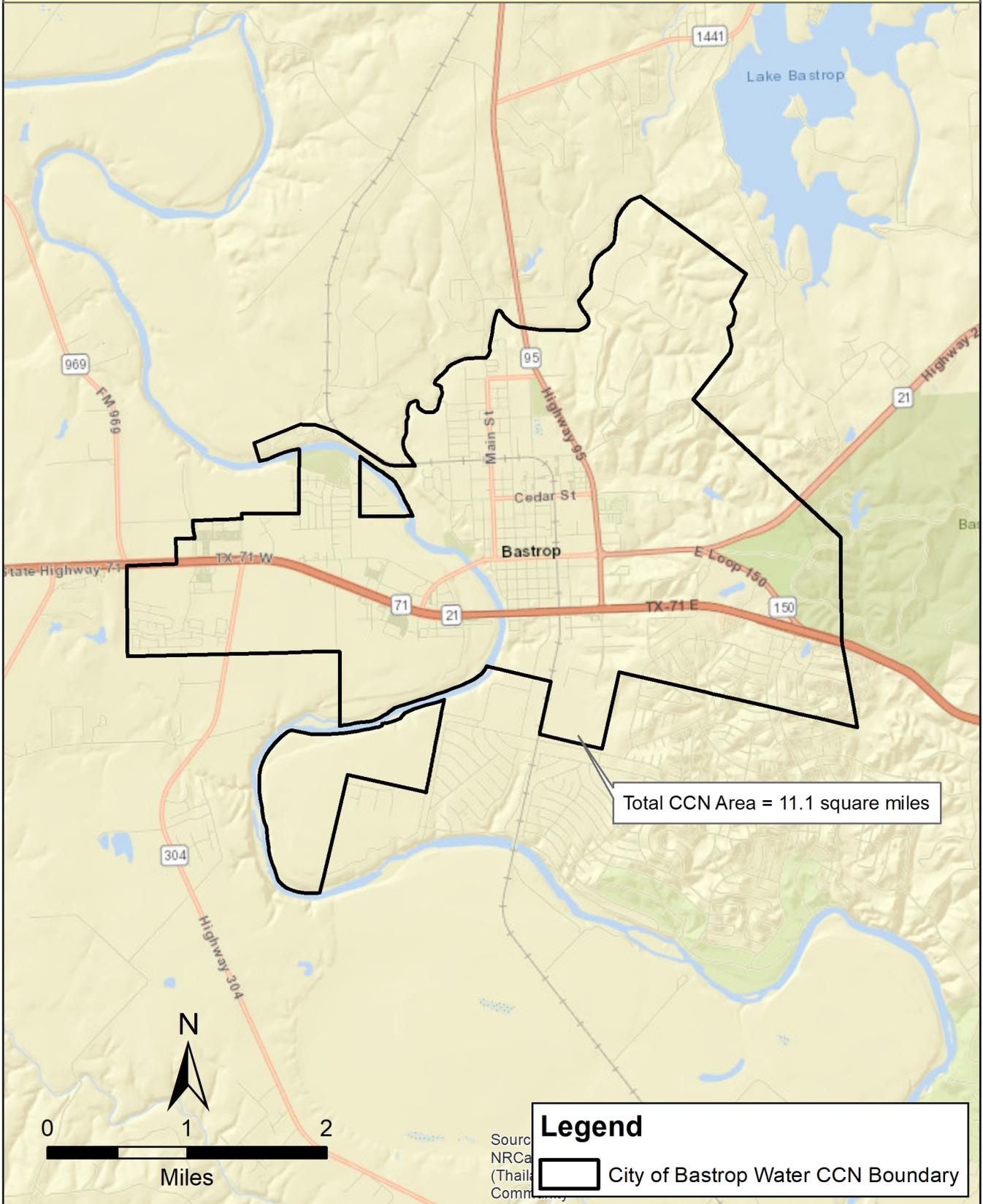
The City has received authorization from the TCEQ for reuse of Type I and Type II wastewater effluent from the City’s wastewater treatment plant facility. Historically under this authorization, the City has provided reuse water to support local construction activities and operations at the City’s wastewater treatment facility. Currently, the City is not utilizing reuse water as additional capital improvements to supporting pumping and storage facilities are needed before the system can be brought back online.

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

## **APPENDIX B**

City of Bastrop Water CCN Map

# City of Bastrop Water CCN No. 11198



## **APPENDIX C**

5-year and 10-year Goals for Water Savings  
TWDB Form No. 1964

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

Facility Name: CITY OF BASTROP

Water Conservation Plan Year: 2019

	<b>Historic 5yr Average</b>	<b>Baseline</b>	<b>5-yr Goal for year <u>2024</u></b>	<b>10-yr Goal for year <u>2029</u></b>
Total GPCD <sup>1</sup>	169	169	165	161
Residential GPCD <sup>2</sup>	80	80	78	76
Water Loss (GPCD) <sup>3</sup>	19	19	17	16
Water Loss (Percentage) <sup>4</sup>	11 %	11 %	10 %	10 %

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

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

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

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

# **APPENDIX D**

City of Bastrop Drought Contingency Plan

9/5/2019

Texas Commission on Environmental Quality  
P.O. Box 13087  
Resource Protection Team  
MC-160  
Austin, TX 78711-3087

Attn: Resource Protection Team

Re: Updated Drought Contingency Plan for the City of Bastrop, TX

To the Resources Protection Team

The City of Bastrop (City) has recently revised and updated their Drought Contingency Plan (DPC) in accordance with the rules and requirements provided by the Texas Commission on Environmental Quality (TCEQ). The current plan, which was adopted by Bastrop City Council on August 27, 2019, replaces the previous DCP for the City dated May 2012.

The updated DCP is provided as an attachment to this letter. Also included as attachments are the following:

- Summary log of revisions to current plan from previous plan;
- Cover letter for the DCP submittal to the Region K Regional Water Planning Group; and
- Copy of the signed City of Bastrop City Council resolution adopting the updated DCP.

The TCEQ previously provided a notice dated July 24, 2019 to the City reminding the City of the deadlines for the DCP and the City's Water Conservation Plan. After further discussion with TCEQ staff, it was clarified that the City is not required to submit a Water Conservation Plan to the TCEQ as the City is not a surface water right holder. The City is in the process of updating their Water Conservation Plan for submission to the Texas Water Development Board pursuant to the rules and requirements under 31 TAC 363.

Please feel free to contact me directly should you have any questions concerning these items.

Sincerely,



**DANIEL M. FRAZIER, P.E.**  
PROJECT MANAGER

W 512.382.0021 M 512.960.0081

DF

Attachments: City of Bastrop Drought Contingency Plan (August 2019); Summary Log of DCP Revisions, Cover Letter for DCP Submittal to the Region K Regional Water Planning Group; Bastrop City Council Resolution Adopting Current DCP

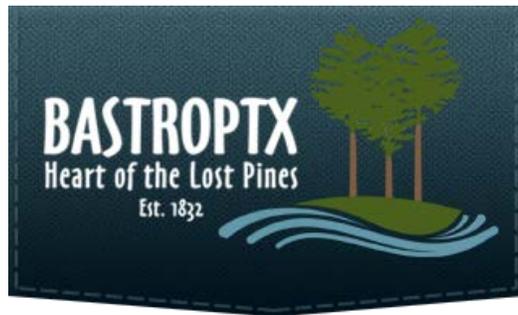
Electronic Delivery

Cc: Project File

Attachment 1 – Updated Drought Contingency Plan for  
the City of Bastrop (August 2019)

# CITY OF BASTROP

## DROUGHT CONTINGENCY PLAN



Adopted: August 27, 2019

Prepared by:



# **AMENDED DROUGHT CONTINGENCY PLAN FOR THE CITY OF BASTROP, TEXAS**

## **Introduction and Background**

The City of Bastrop provides utility services which includes providing treated water to its residents. Refer to the information below concerning general details for the city's water utility.

- Name of Utility: City of Bastrop
- Address: 300 Water Street., Bastrop, TX 78602
- Water CCN#: 11198
- PWS #: TX0110001

Safe, high quality drinking water is a precious resource in the Bastrop region. This Drought Contingency Plan (Plan) requires that the available resources of the City of Bastrop be put to the most beneficial use possible. The Plan also requires that the waste, unreasonable use, or unreasonable method of use of water be prevented and that conservation of water be extended with a view to reasonable and beneficial use in the interests of public health and welfare of the Bastrop community.

## **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 City of Bastrop hereby adopts the following regulations and restrictions on the delivery and consumption of water by ordinance.

Water uses regulated or prohibited under this Plan are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply conditions are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in Section XI 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 Bastrop by means of public hearing during a City Council meeting on August 27, 2019.

## **Section III: Public Education**

The City of Bastrop will periodically provide the public with information about the Plan as well as water conservation and drought conditions, 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 paid advertisements, public notices, press releases, publication through City social media account(s), and/or utility bill inserts.

## **Section IV: Coordination with the Lower Colorado Regional Water Planning Group**

The service area of the City of Bastrop is located within the Lower Colorado Regional Water Planning Region (Region K) and the City of Bastrop has provided a copy of this plan to the Lower Colorado 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 authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan. This Plan shall also be referenced in, and become an Appendix to, the City of Bastrop Emergency Management Plan, Annex L; Utilities.

## **Section VI: Application**

The provisions of this Plan shall apply to all persons, customers, and property utilizing water provided by the City of Bastrop. The terms “person” and “customer” as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities. Utilization of a water source other than City potable water is exempt from the provisions of this Plan.

## **Section VII: Permanent Water Restrictions**

This section establishes permanent water conservation regulations and applies year-round regardless of Drought stage.

- (a) Landscape irrigation using automatic in-ground or hose-end sprinkler systems is prohibited between the hours of 9:30 a.m. and 6:30 p.m.
  1. The time restrictions do not apply to:
    - i. The irrigation of commercial plant nurseries.
    - ii. Irrigation using reclaimed water or other non-potable water sources.
    - iii. New landscape installation during planting and the first ten (10) days after planting.
    - iv. The testing of new irrigation systems or systems that are under repair.
    - v. Irrigation using a hand-held bucket or hose equipped with a positive shut-off valve, pressure washer system, or other device that automatically shut off water flow when the hose is not being held by the water user.
    - vi. Irrigation by drip irrigation or soaker hoses.
- (b) The following constitute a waste of water and are prohibited:
  1. Washing sidewalks, walkways, driveways, parking lots, tennis courts, patios, or other hard-surfaced areas except with a pressure-washing system or to alleviate immediate health or safety hazards.
  2. Allowing water to run off a property or allowing water to pond or pool in the street, parking lot, or sidewalk.
  3. Operating an irrigation system with sprinkler heads that are broken or out of adjustment.
  4. Failure to repair a controllable leak(s) within a reasonable time period after having been given notice directing the repair of such leak(s).
- (c) Ornamental fountains or ponds for aesthetic or scenic purposes must be equipped with a recirculation device. This restriction does not apply to ornamental fountains or ponds that use reclaimed water, non-potable water, or water provided by sources other than the City.
- (d) Use of water for irrigation of golf course greens, tees, and fairways is permitted only on designated watering days as outlined in Section X of this plan. Such irrigation shall only occur from 1:00 a.m. to 7:00 a.m. and from 8:00 p.m. to midnight. These restrictions do not apply to irrigation of any golf course that uses reclaimed water or other non-potable sources.

## Section VIII: Definitions

For the purposes of this Plan, the following definitions shall apply:

Aesthetic water use: water used for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

Commercial and institutional water use: water use which is integral to the operations of commercial and non-profit establishments and governmental entities such as retail establishments, hotels and motels, restaurants, and office buildings.

Conservation: those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water or increase the recycling and reuse of water so that a supply is conserved and made available for future or alternative uses.

Customer: any person, company, or organization using water supplied by the City of Bastrop.

Daily water demand: the total amount of water pumped or otherwise released into distribution system(s) for customer use. Expressed in gallons, which are metered in a given 24-hour period (gallons per day).

Declaration of disaster: that action taken by the Mayor, as authorized by the City of Bastrop Emergency management Basic Plan and the Texas Disaster Act of 1975, when the Mayor determines that the public health, safety, and welfare may be threatened by a disastrous event, or the imminent threat of such an event.

Director: the director of water and wastewater, City of Bastrop, Texas.

Domestic water use: water use for personal needs or for household or sanitary purposes such as drinking, bathing, heating, cooking, sanitation, or for cleaning a residence, business, industry, or institution.

Drip irrigation: also known as *trickle irrigation* or *micro-irrigation* is an irrigation method which minimizes the use of water and fertilizer by allowing water to drip slowly to the roots of plants through a network of valves, pipes, tubing, and emitters.

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

Hose-end sprinkler: designed to screw into a standard hose and rest on the ground wherever you drag it and set it down; it then delivers water in a spray pattern in the immediate area.

Industrial water use: the use of water in processes designed to convert materials of lower value into forms having greater usability and value.

Landscape irrigation use: water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, and rights-of-way and medians.

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

- (a) irrigation of landscape areas, including parks, athletic fields, and golf courses, except otherwise provided under this Plan;
- (b) use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;
- (c) use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
- (d) use of water to wash down buildings or structures for purposes other than immediate fire protection;
- (e) flushing gutters or permitting water to run or accumulate in any gutter or street;
- (f) use of water to fill, refill, or add indoor or outdoor swimming pools or Jacuzzi-type pools;
- (g) use of water in a fountain or pond for aesthetic water use or scenic purposes except where necessary to support aquatic life;

- (h) failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s); and
- (i) use of water from hydrants for construction purposes or any other purposes other than firefighting.

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

Total production capability: the total net aggregate amount of water that can be produced from all water wells capable of supplying water to the system in any given 16-hour period.

Trigger: a threshold level to be used as an initiation or termination point for actions based on certain mathematical criteria, or as per the authority granted by Section 13.06.013 of the Bastrop City Code of Ordinances.

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

Daily water demand will be monitored for emergency conditions by the City Manager or his/her designee. Trigger conditions will be based on an emergency situation caused by a natural disaster, equipment or system failure, natural or manmade contamination, high daily average water demand, or any other condition that substantially and negatively affects the City's potable water supply. The City Manager, on either the recommendations of the Director or pursuant to their sole discretion and authority, shall determine when conditions warrant initiation or termination of each stage of the Plan.

The triggering criteria described below are based on a statistical analysis of the vulnerability of the water source under drought of record condition, and on known system capacity limits.

### **Stage 1 Trigger – MILD Water Shortage Conditions / Water Awareness**

#### Requirements for initiation

Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain non-essential water uses, as provided in Section X of this Plan, when daily water demand exceeds 85% of Total Production Capability for three (3) consecutive days or water demand approaches a reduced delivery capacity for all or parts of the system, and the City Manager determines that no circumstances exist that will decrease the demand except conservation by customers.

#### Requirements for termination

Stage 1 of the Plan may be terminated or rescinded when all of the conditions listed as triggering events have ceased to exist for a period of (3) consecutive days and would be unlikely to recur upon termination, or until such time as determined by the City Manager.

### **Stage 2 Trigger – MODERATE Water Shortage Conditions / Water Watch**

#### Requirements for initiation

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses, as provided in Section X of this Plan, when the daily water demand exceeds 90 % of Total Production Capability for three (3) consecutive days, and that response measures required by Stage 1 trigger – MILD Water Shortage Conditions / Water Awareness have been implemented, and the City Manager determines that no circumstances exist that will decrease the demand below the Stage 2 Trigger except conservation by customers.

#### Requirements for Termination

Stage 2 of the Plan may be terminated or rescinded when all of the conditions listed as triggering events have ceased to exist for a period of (3) consecutive days and would be unlikely to recur upon termination, as determined by the City Manager. Upon termination of Stage 2, Stage 1 becomes operative.

### **Stage 3 Trigger -- CRITICAL Water Shortage Conditions**

#### Requirements for Initiation

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses, as provided in Section X of this Plan, when the daily water demand exceeds 95 % of Total Production Capability for three (3) consecutive days, and that response measures required by Stage 2 trigger – MODERATE Water Shortage Conditions / Water Watch have been implemented, and the City Manager determines that no circumstances exist that will decrease the demand below the Stage 3 Trigger except conservation by customers.

#### Requirements for Termination

Stage 3 of the Plan may be terminated or rescinded when all of the conditions listed as triggering events have ceased to exist for a period of (3) consecutive days. Upon termination of Stage 3, Stage 2 becomes operative.

### **Stage 4 Trigger -- EMERGENCY Water Shortage Conditions / Water Emergency**

#### Requirements for Initiation

Customers shall be required to comply with the requirements and restrictions for Stage 4 of this Plan when the City Manager determines that a water supply emergency exists based on:

1. Major water line breaks, or pump or system failures occur, which cause substantially significant threat of a loss of capability to provide water service; or
2. Natural or man-made contamination of the water supply sources(s); or
3. Daily water demand equals or exceeds 100 % of the Total Production Capability for three (3) consecutive days.

#### Requirements for Termination

Stage 4 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days and would be unlikely to recur upon termination, as determined by the City Manager. Upon termination of Stage 4, the City Manager may impose requirements of Stage 1, 2, or 3 of the Plan if circumstances exist that require continued abatement to the effects of the emergency water shortage condition.

### **Stage 5 Trigger — WATER ALLOCATION**

#### Requirements for Initiation

Customers shall be required to comply with the water allocation plan prescribed in Section IX of this Plan if the City Manager makes the determination that water shortage conditions threatened public health, safety, and welfare due to the type, effect, or magnitude of such conditions.

#### Requirements for Termination

Stage 5 of the plan may be rescinded when the City Manager makes a determination that the triggering conditions no longer threaten public health, safety, and welfare of the City of Bastrop water utility customers.

## **Section X: Drought Response Stages**

The City Manager, or his/her designee, shall monitor water supply and/or demand conditions on a daily basis and, in accordance with the triggering criteria set forth in Section IX of this Plan, and the City Manager will determine if conditions exist that would trigger any of the designated drought stages, and if so, shall implement the following notification protocol:

#### Notification of the Public:

The City Manager or his/her designee shall notify the public by means of:

- (a) Publication in a newspaper of general circulation, and/or direct mail to customers, or
- (b) Public service announcements, or signs posted in public places, or

- (c) Notice posted on the City of Bastrop's website at <https://www.cityofbastrop.org>

Additional Notification:

The City Manager or his/her designee shall notify directly, or cause to be notified directly, the following individuals and entities:

- (a) Mayor / Members of the City Council
- (b) Fire Chief
- (c) City and/or County Emergency Management Coordinator(s)
- (d) County Judge
- (e) State Disaster District / Department of Public Safety
- (f) TNRCC (required when mandatory restrictions are imposed) Major water users
- (g) Critical water users; i.e. hospitals, clinics and nursing homes
- (h) City of Bastrop Department Heads

**Stage 1 Response -- MILD Water Shortage Conditions**

**Target: Raise public awareness of water demand conditions and achieve a voluntary reduction such that daily water demand is equal to 85 % or less of Total Production Capability.**

Best Management Practices for Supply Management:

The City Manager shall implement supply management measures that include reduction in flushing of water mains, visually inspect lines and repair leaks on a daily basis, monthly review of customer use/consumption records and follow-up on any that have unusually high usage, as well as conservation of incidental water usage at water and wastewater plants. Activities shall be implemented which include increased monitoring of meters, gauges, water levels in tanks, and water well production data.

Voluntary Water Use Restrictions for Reducing Demand:

Water customers are requested to voluntarily limit the use of water for nonessential purposes and to practice water conservation.

- (a) Restricted Days/Hours: Water customers are requested to voluntarily limit the irrigation of landscaped areas to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and to irrigate landscapes only between the hours of 12:00 a.m. (midnight) and 7:00 a.m., and between the hours of 6:00 p.m. to 9:00 p.m. on designated watering days. However, irrigation of landscaped areas is permitted at any time if it is by means of a hand-held hose, a faucet-filled bucket or watering can of five (5) gallons or less, or drip irrigation system.
- (b) All general operations of the City of Bastrop shall adhere to mandatory water use restrictions prescribed for Stage 2 of the Plan.
- (c) Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes.

## Stage 2 Response –MODERATE Water Shortage Conditions

**Target: Achieve a reduction in water use such that daily water demand is equal to 90% or less of Total Production Capability.**

### Best Management Practices for Supply Management:

The City Manager shall implement supply management measures that discontinue flushing of water mains, irrigation of public landscaped areas and all water usage at water and wastewater plants not required for direct operations of the facilities.

### Mandatory Water Use Restrictions for Demand Reduction:

Under threat of penalty for violation, the following water use restrictions shall apply to all City of Bastrop water utility customers.

- (a) Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and irrigate landscapes only between the hours of 4:00 a.m. and 8:00 a.m. and between the hours of 8:00 p.m. and 12:00 a.m. (midnight) on designated watering days. However, irrigation of landscaped areas is permitted at any time if it is by means of a hand-held hose, a faucet-filled bucket or watering can of five (5) gallons or less, or drip irrigation system.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated watering days between the hours of 7:00 p.m. until 11:00 p.m. Such washing, when allowed, shall be done with a faucet-filled bucket or a hand-held hose equipped with a positive shut-off nozzle. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public is contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.
- (c) Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or Jacuzzi-type pools is prohibited except on designated watering days during the hours prior to 8:00 a.m. and the hours after 8:00 p.m.
- (d) Use of water from hydrants shall be limited to firefighting, related activities, or other activities necessary to maintain public health, safety, and welfare, except that use of water from designated fire hydrants for construction purposes may be allowed under special permit from the City Manager.
- (e) Use of water for the irrigation of athletic fields or golf course greens, tees, and fairways is prohibited except on designated watering days between the hours of 4:00 a.m. and 8:00 a.m. and the hours of 8:00 p.m. and 12:00 a.m. (midnight). However, if the athletic field or golf course utilizes a water source other than that provided by the City of Bastrop, the facility shall not be subject to these regulations.
- (f) The following uses of water are defined as non-essential and are prohibited:
  1. Use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
  2. Use of water to wash down buildings or structures for purposes other than immediate fire protection;
  3. Use of water for dust control;
  4. Flushing gutters or permitting water to run or accumulate in any gutter or street; and
  5. Failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

### Stage 3 Response - CRITICAL Water Shortage Conditions

**Target: Achieve a reduction in water use such that daily water demand is equal to 95% or less of Total Production Capability.**

#### Best Management Practices for Supply Management:

The City Manager shall implement supply management measures that discontinue flushing of water mains, irrigation of public landscaped areas and all water usage at water and wastewater plants not required for direct operations of the facilities. Water usage at all City buildings shall be restricted to health, sanitation, cleanliness or firefighting purposes.

#### Mandatory Water Use Restrictions:

Under threat of penalty for violation, the following water use restrictions shall apply to all City of Bastrop water utility customers:

- (a) Irrigation of landscaped areas by means of hand-held hoses, hand-held buckets or drip irrigation shall be limited to designated watering days, as outlined in Stage 2 of this Plan and between the hours of 6:00 a.m. and 8:00 a.m. and between 8:00 p.m. and 12:00 a.m. (midnight). The use of hose-end sprinklers or automatic sprinkler systems are prohibited at all times.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle not occurring on the premises of a commercial car wash and commercial service stations and not in the immediate interest of public health, safety and welfare is prohibited. Further, such vehicle washing at commercial car washes and commercial service stations shall occur only between the hours of 8:00 and 6:00 p.m.
- (c) The filling, refilling, or adding of water to indoor or outdoor swimming pools, wading pools, and Jacuzzi-type pools is prohibited.
- (d) Operation of any 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 re-circulation system.
- (e) No new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved or installed for such time as this drought response stage or a higher-numbered stage shall be in effect.
- (f) Use of water from hydrants shall be limited to firefighting, related activities, or other activities necessary to maintain public health, safety, and welfare. Use of water from fire hydrants for construction purposes is prohibited.
- (g) Use of water for the irrigation of athletic fields or golf course greens, tees, and fairways is prohibited. However, if the athletic field or golf course utilizes a water source other than that provided by the City of Bastrop, the facility shall not be subject to these regulations.
- (h) All non-essential uses of water as listed in Stage 2 of this plan are prohibited.

### Stage 4 Response - EMERGENCY Water Shortage Conditions

**Target: Achieve reduction in daily water demand sufficient to assure protection of public health, safety, and welfare of the City of Bastrop water utility customers.**

#### Best Management Practices for Supply Management:

The City Manager shall implement supply management measures that discontinue flushing of water mains, irrigation of public landscaped areas and all water usage at water and wastewater plants not required for direct operations of the facilities. Water usage at all City buildings shall be restricted to health, sanitation, cleanliness or firefighting purposes.

Mandatory Water Use Restrictions:

Under threat of penalty for violation, all requirements of Stage 3 shall remain in effect during Stage 4 except:

- (a) Irrigation of landscaped areas is absolutely prohibited.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is absolutely prohibited.
- (c) Curtailment of service to persons shown to be of violation of prohibited uses of water may be ordered by the City Manager, if the City Manager determines that such curtailment would not be detrimental to the public health, safety, and welfare, and determines that such curtailment would benefit the mitigation of Stage 4 conditions.

**Stage 5 Response - WATER ALLOCATION**

In the event that water shortage conditions threaten public health, safety, and welfare due to the duration, type, effect or magnitude of such conditions, and a Declaration of Disaster has been issued relating to such conditions, the City Manager is hereby authorized to allocate water according to the following plan. In addition to other restrictions required in Stage 2, 3, or 4 Response, a monthly water allocation may be established by the City Manager for single family residential water customers.

Single-Family Residential Customers

The allocation to residential water customers residing in a single-family dwelling shall be as follows:

<b>Persons per Household</b>	<b>Gallons per Month</b>
1 or 2	4,500
3 or 4	5,500
5 or 6	6,500
7 or 8	7,500
9 or 10	8,500
11 or more	10,000

"Household" means the residential premises served by the customer's meter. "Persons per household" includes only those persons currently physically residing at the premises and expected to reside there for the entire billing period. It shall be assumed that a particular customer's household is comprised of two (2) persons unless the customer notifies the City of Bastrop of a greater number of persons per household on a form prescribed by the City Manager. It shall be the customer's responsibility to go to the City of Bastrop offices to complete and sign the form claiming more than two (2) persons per household. When the number of persons per household increases so as to place the customer in a different allocation category, the customer may notify the City of Bastrop on such form and the change will be implemented in the next practicable billing period. If the number of persons in a household is reduced, the customer shall notify the City of Bastrop in writing. Any person who knowingly, recklessly, or with criminal negligence falsely reports the number of persons in a household or fails to timely notify the City of Bastrop of a reduction in the number of persons in a household shall be subject to penalties set forth in Section XI of this Plan.

Residential water customers shall pay the following surcharge: 125 % of the normal and routine charge for water billed in excess of allocation.

Master-Metered Multi-Family Residential Customers

In addition to other restrictions in Stage 2, 3 or 4 Responses, a monthly water allocation may be established by the City Manager for master-metered multi-family water customers. The allocation to a customer billed from a master meter which jointly measures water to multiple permanent residential dwelling units (e.g., apartments, mobile homes) shall be allocated 6,000 gallons per month for each dwelling unit. A dwelling unit may be claimed under this provision whether it is occupied or not. Any person who knowingly, recklessly, or with criminal negligence falsely reports the

number of dwelling units served by a master meter shall be subject to penalties set forth in Section XI of this Plan.

Customers billed from a master meter under this provision shall pay the following monthly surcharge: 125 % of the normal and routine charges for water billed in excess of allocation.

#### Commercial Customers

In addition to other restrictions in Stage 2, 3 or 4 Responses, a monthly water allocation may be established by the City Manager for each commercial customer. The commercial customer's allocation shall be no less than 75 percent of the customer's usage for corresponding month's billing period for the previous 12 months. If the customer's billing history is shorter than 12 months, the monthly average for the period for which there is a record shall be used for any monthly period for which no history exists. However, a customer for which 75 percent of the monthly usage is less than 6,000 gallons, shall be allocated 6,000 gallons. Upon request of a customer or at the initiative of the City Manager, the allocation may be reduced or increased if, (1) the designated period does not accurately reflect the customer's normal water usage or (2) other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the Bastrop City Council.

Non-residential commercial customers shall pay the following surcharges: 150 % of the normal and routine charges for water billed in excess of allocation.

#### Industrial Customers

In addition to other restrictions in Stage 2, 3 or 4 Responses, a monthly water allocation may be established by the City Manager for each industrial customer, which uses water for processing purposes. The industrial customer's allocation shall be no less than 85 percent of the customer's water usage baseline. However, a customer of which 85 percent of the monthly usage is less than 6,000 gallons, shall be allocated 6,000 gallons. The industrial customer's water use baseline will be computed on the average water use for the three month period ending prior to the date of implementation of Stage 2 of the Plan. If the industrial water customer's billing history is shorter than 3 months, the monthly average for the period for which there is a record shall be used. Upon request of the customer or at the initiative of the City Manager, the allocation may be reduced or increased if, (1) the designated period for baseline calculation does not accurately reflect the customer's normal water usage, (2) the customer has added or is in the process of adding significant additional processing capacity, (3) the customer has shut down or significantly reduced the production of a major processing unit, (4) the customer has previously implemented significant permanent water conservation measures such that the ability to further reduce water use is limited, or (5) if other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the Bastrop City Council.

Industrial customers shall pay the following surcharges: 150 % of the normal and routine charges for water billed in excess of allocation.

### **Section XI: Enforcement**

(a) No person shall knowingly or intentionally allow the use of water from the City of Bastrop for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this Plan, or in an amount in excess of that permitted by the drought response stage in effect at the time pursuant to action taken by in accordance with provisions of this plan.

(b) Any person who violates this Plan is guilty of a Class C misdemeanor and, upon conviction shall be punished by a fine of not less than FIFTY DOLLARS (\$50.00) and not more than FIVE HUNDRED DOLLARS (\$500.00). Each day that one or more of the provisions in this Plan is violated shall constitute a separate offense. If a person is convicted of two or more distinct violations of this Plan, the City Manager shall, upon due notice to the customer, be authorized to discontinue water service to the premises where such violations occur. Services discontinued under such circumstances shall be

restored only upon payment of a re-connection charge, hereby established at \$25.00, and any other costs incurred by the City of Bastrop in discontinuing service. In addition, suitable assurance must be given to the City Manager that the same action shall not be repeated while the Plan is in effect. Compliance with this Plan may also be sought through injunctive relief in the District Court.

(c) Any person, including a person classified as a water customer of the City of Bastrop, in apparent control of the property where a violation occurs or originates shall be presumed to be the 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, but any such person shall have the right to show the he/she did not commit the violation. Parents shall be presumed to be responsible for violations of their minor children and proof that violation, committed by a child, occurred on property within the parents' control shall constitute a rebuttable presumption that the parent committed the violation, but any such parent may be excused if he/she proves that he/she had previously directed the child not to use the water as it was used in violation of this Plan and that the parent could not have reasonably known of the violation.

(d) Any police officer, Code Compliance Official, building official or other City of Bastrop employee designated by the City Manager, may issue a citation to a person he/she reasonably believes to be in violation of this Ordinance. The citation shall be prepared in duplicate and shall contain the name and address of the alleged violator, if known, the offense charged, and shall direct him/her to appear in the Municipal Court on the date shown on the citation for which the date shall not be less than three (3) days nor more than five (5) days from the date the citation was issued. The alleged violator shall be served a copy of the citation. Service of the citation shall be complete upon delivery of the citation to the alleged violator, to an agent or employee of a violator, or to a person over fourteen (14) years of age who is a member of the violator's immediate family or is a resident of the violator's residence. The alleged violator shall appear in Municipal Court to enter a plea of guilty or not guilty for the violation of this Plan. If the alleged violator fails to appear in Municipal Court, a warrant for his/her arrest may be issued. A summons to appear may be issued in lieu of an arrest warrant. These cases shall be expedited and given preferential setting in Municipal Court before all other cases.

## **Section XII: Variances**

The City Manager may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:

- (a) Compliance with this Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect.
- (b) Alternative methods can be implemented which will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of this Ordinance shall file a petition for variance with the City of Bastrop within five (5) days after the Plan or particular drought response stage has been invoked. All petitions for variances shall be reviewed by the City Manager, or his/her designee, and shall include the following:

- (a) Name and address of the petitioner(s).
- (b) Purpose of water use.
- (c) Specific provision(s) of the Plan from which the petitioner is requesting relief.
- (d) Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if the petitioner complies with this Ordinance.
- (e) Description of the relief requested.
- (f) Period of time for which the variance is sought.
- (g) 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.

- (h) Other pertinent information.

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

- (a) Variances granted shall include a timetable for compliance.
- (b) Variances granted in a particular stage shall expire upon advancing to a more restrictive stage of the Plan.
- (c) Petitioners shall promptly display the variance granted where it can be read by the general public at all location(s) for which the variance applies, and make said variance available to the public.
- (d) Variances granted may be rescinded or revoked by the City Manager if the Petitioner fails to meet specific requirements set forth in the variance. The variance will automatically expire when the Plan is no longer in effect.
- (e) No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

### **Section XIII: City Manager's Authority to Impose Additional Restrictions**

- (a) The City Manager may, in his/her sole discretion, implement mandatory water restrictions in addition to those previously described in this Drought Contingency Plan, to protect the public health and safety in the event of an unusual water system operation event, equipment failure, catastrophic occurrence, or severe weather event.
- (b) The City Manager may implement mandatory restrictions, immediately effective, by public announcement.

## Attachment 2 – Summary Log of Revisions from Previous Drought Contingency Plan

2019 Bastrop Drought Contingency Plan  
Change Log

Edits	Section	Description
1	General	Renumbered plan sections to be consistent with model template provided by Lower Colorado Planning Group
2	Introduction and Background	Added utility information including name of utility, address, Water CCN #, and Public Water Supply System #
2.1	Introduction and Background	Removed reference to coordination with Regiona K as this is provided in its own dedicated section further down in the Plan
3	Section 1	Added "by ordinance" to the end of first paragraph
4	Section 2	Added in new Section 2 to address public involvement provisions
5	Section 3	Revised paragraph to include the Plan in the first sentence
6	Section 3	Added reference to City social media account
7	Section 4	Modified references to Lower Colorado Regional Water Planning Group to align with how it's referenced in the model template from LCRPG
8	Section 5	Added 'his/her designee' after mentions of City Manager
8.1	Section 7	Reformatted sub-listing to include the 'Time Restrictions do not apply' bullet within the heading bullet of landscape irrigation.
9	Section 9	Replaced 'their' with 'his/her' after reference to City Manager
10	Section 9	Revised Water/Wastewater Director to be Director to match Definitions reference
11	Section 9, Stage 1	Replaced 'Stage 1 conditions' with 'all of the conditions listed as triggering events have ceased to exist' to standardize to language provided in LCRPG model
12	Section 9, Stage 2	Replaced 'Stage 1 conditions' with 'all of the conditions listed as triggering events have ceased to exist' to standardize to language provided in LCRPG model
13	Section 9, Stage 3	Replaced 'Stage 1 conditions' with 'all of the conditions listed as triggering events have ceased to exist' to standardize to language provided in LCRPG model
14	Section 9, Stage 4	Update Item 3 under requirements for initiation to read 'equals or exceeds' in liue of just 'equal'
15	Section 9, Stage 4	Replaced 'Stage 1 conditions' with 'all of the conditions listed as triggering events have ceased to exist' to standardize to language provided in LCRPG model
16	Section 9, Stage 5	Added Stage 5 Trigger Water Allocation to Section IX;
17	Section 10	First paragraph, added reference to City Manager to clarify only City Manager can make determination
18	Section 10	Added 'his/her designee' after mentions of City Manager, for notifications
19	Section 10	Added 'his/her designee' after mentions of City Manager, for additional notifications
20	Section 10	Included URL to city's website under notifications
21	Section10, Stage 1	Changed Goal to Target to align with LCPRPG model template; reworded target statement to indicate demand equal to % of target production in liue of providing mandated decrease. Previous version read as if the % given is the target reduction vs a reduction to get below the %
22	Section10, Stage 1	Changed 'Supply Management Measures' to 'Best Management Practices for Supply Management' in heading to align with language in LCRPG model template
23	Section10, Stage 1	Revised irrigation water times to be 12:00 am; previous version incorrectly listed 12:00 pm as midnight.
24	Section10, Stage 1	changed 'permanant' to 'mandatory'.

2019 Bastrop Drought Contingency Plan  
Change Log

25	Section 10, Stage 2	Changed Goal to Target to align with LCPRPG model template; reworded target statement to indicate demand equal to % of target production in lieu of providing mandated decrease. Previous version read as if the % given is the target reduction vs a reduction to get below the %
26	Section 10, Stage 2	Changed 'Supply Management Measures' to 'Best Management Practices for Supply Management' in heading to align with language in LCRPG model template
27	Section 10, Stage 2	Revised times to be 12:00 am; previous version incorrectly listed 12:00 pm as midnight.
28	Section 10, Stage 3	Changed Goal to Target to align with LCPRPG model template; reworded target statement to indicate demand equal to % of target production in lieu of providing mandated decrease. Previous version read as if the % given is the target reduction vs a reduction to get below the %
29	Section 10, Stage 3	Changed 'Supply Management Measures' to 'Best Management Practices for Supply Management' in heading to align with language in LCRPG model template
30	Section 10, Stage 3	Deleted Restricted Days/Hours as this heading is applicable to multiple subitems, not just the one it was included for. Deleted for consistency
31	Section 10, Stage 3	Added 12:00 a.m. to be consistent with time callouts in used elsewhere in document.
32	Section 10, Stage 4	Changed Goal to Target to align with LCPRPG model template
33	Section 10, Stage 4	Changed 'Supply Management Measures' to 'Best Management Practices for Supply Management' in heading to align with language in LCRPG model template

Attachment 3 – Cover Letter for Drought Contingency  
Plan Submittal to the Region K Regional Water Planning  
Group

9/3/2019

Lower Colorado River Authority  
P.O. Box 220  
Austin, TX 78767-0220

Attn: Stacy Pandey

Re: Drought Contingency Plan for the City of Bastrop, Texas

Dear Ms. Pandey:

The City of Bastrop is submitting the enclosed Drought Contingency Plan to the Region K – Lower Colorado Regional Water Planning Group as prescribed by the Texas Commission on Environmental Quality (TCEQ) in 30 TAC §288. This plan is an update to the City's previous drought contingency plan prepared in May 2012, and it was adopted by the City of Bastrop through a council resolution on August 27, 2019. Updates to the current plan have been incorporated based on a review of the Region K 2016 Regional Water Plan and sample model plan guidance provided by the regional planning group.

Please feel free to contact me should you have any questions or comments concerning the information in the enclosed Drought Contingency Plan.

Sincerely,



**DANIEL M. FRAZIER, P.E.**  
PROJECT MANAGER  
M 512.960.0081

DF

Attachments: 2019 City of Bastrop Drought Contingency Plan

Postal Delivery

Cc: Project File

Attachment 4 – City Council Resolution Adopting  
Current Drought Contingency Plan for the City of  
Bastrop

**RESOLUTION NO. R-2019-76**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BASTROP, TEXAS APPROVING THE ADOPTION OF A DROUGHT CONTINGENCY; REPEALING CONFLICTING PROVISIONS; AND ESTABLISHING AN EFFECTIVE DATE.**

**WHEREAS**, the City Council of the City of Bastrop, Texas recognizes that the amount of water available to the City of Bastrop and its water utility customers are limited and subject to depletion during periods of extended drought; and

**WHEREAS**, the City Council of the City of Bastrop, Texas recognizes that natural limitations due to drought conditions and other acts of God cannot guarantee an uninterrupted water supply for all purposes; and

**WHEREAS**, Section 11.1272 of the Texas Water Code and applicable rules of the Texas Commission on Environmental Quality require all public water supply systems in Texas to prepare a drought contingency plan; and

**WHEREAS**, as authorized under law, and in the best interests of the customers of the City of Bastrop, the City Council of the City of Bastrop, Texas deems it expedient and necessary to establish certain rules and policies for the orderly and efficient management of limited water supplies during drought and other water supply emergencies; and

**WHEREAS**, the City of Bastrop previously adopted a Drought Contingency Plan and requires it be amended or revised and resubmitted to the Texas Commission on Environmental Quality.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BASTROP, TEXAS:**

**SECTION 1.** That the amended Drought Contingency Plan attached hereto as Exhibit "A" and made part hereof for all purposes be, and the same is hereby, adopted as the official policy of the City of Bastrop.

**SECTION 2.** That the City Manager is hereby directed to implement, administer, and enforce the Drought Contingency Plan.

**SECTION 3.** That this resolution shall take effect immediately upon its passage.

**DULY RESOLVED AND ADOPTED** by the City Council of the City of Bastrop,  
Texas this 27<sup>th</sup> day of August 2019.

**APPROVED:**

  
\_\_\_\_\_  
Connie B. Schroeder, Mayor

**ATTEST:**

  
\_\_\_\_\_  
Ann Franklin, City Secretary

**APPROVED AS TO FORM:**

  
\_\_\_\_\_  
Alan Bojorquez, City Attorney

## **APPENDIX E**

Regional Water Planning Group – Region K Notification Letter

March XX, 2020

Lower Colorado River Authority  
P.O. Box 220  
Austin, TX 78767-0220

Attn: Stacy Pandey

Re: Water Conservation Plan for the City of Bastrop, Texas

Dear Ms. Pandey:

The City of Bastrop is submitting the enclosed Water Conservation Plan to the Region K – Lower Colorado Regional Water Planning Group as prescribed by the Texas Water Development Board (TWDB) in 31 TAC §363. This plan is an update to the City's previous water conservation plan (adopted August 2016). The updated plan was adopted by the City of Bastrop by passing Ordinance No. 2020-07 on March 24, 2020. Updates to the current plan have been incorporated based on a review of the City's most recent water use data; these plan updates primarily include revisions to the City's 5-year and 10-year water conservation targets, as well as an updated water utility profile. The City's current Water Conservation Plan is not required to be updated until 2021; however, the City has gone ahead and incorporated the updates in the enclosed plan as this was prepared in conjunction with an update to the City's Drought Contingency Plan.

Please feel free to contact me should you have any questions or comments concerning the information in the enclosed Water Conservation Plan.

Sincerely,

S. **JARED** NIERMANN, P.E.  
PROJECT MANAGER  
○ 512.382.0021

SJN

Attachments: 2019 City of Bastrop Water Conservation Plan

Postal Delivery

Cc: Project File

# **APPENDIX F**

City of Bastrop City Council Ordinance of Adoption