
WATER CONSERVATION & DROUGHT CONTINGENCY PLAN

for

WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY

FIRM WATER CONTRACT

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1.0 INTRODUCTION

The West Travis County Public Utility Agency (WTCPUA) has developed this Water Conservation and Drought Contingency Plan (Plan) for its treated water utility systems to manage public water resources efficiently and to plan appropriate responses to emergency and drought conditions. This Plan fulfills requirements of the Texas Administrative Code, Title 30, sections 288.2, 288.20 and 288.22, regarding water conservation and drought contingency planning for municipal water suppliers. Appendix A provides details on how the Water Conservation and Drought Contingency Plan adheres to the Texas Administrative Code for water conservation and drought contingency plan requirements. The Plan recognizes that conservation is a valuable tool in managing water and wastewater utility systems. Water conservation can extend available water supplies; reduce the risk of shortage during periods of extreme drought; reduce water and wastewater utility operating costs; improve the reliability and quality of water utility service; reduce customer costs for water service; reduce wastewater flows; improve the performance of wastewater treatment systems; enhance water quality and protect the environment.

1.1 Authorization and Implementation

The WTCPUA Board of Directors is authorized and directed to implement the applicable provisions of this Plan. The WTCPUA Board of Directors has the authority to initiate and terminate drought or other water supply emergency response measures as described in this Plan.

Further, the WTCPUA Board of Directors will designate an individual to act as administrator of this Plan. The administrator will oversee the implementation of the program and will be responsible for ensuring that staff keeps adequate records for program verification. LCRA water conservation staff will assist with implementation of programs and projects described in this Plan.

1.2 Public Involvement

This Plan is based on the *2014 Raw Water Conservation Plan*, the *2015 Drought Contingency Plan for Firm Water Customers*, the *2013 Drought Contingency Plan Rules for Water Sale Contracts*, and the *2015 Water Conservation Plan Rules for Water Sale Contracts*. All customers in the service area of the utilities were provided an opportunity for input through the LCRA and WTCPUA adoption processes. Any future revisions to this Water Conservation and Drought Contingency Plan will be made through a process that includes the opportunity for public participation.

1.3 Application

This Plan applies only to treated water utility systems, both wholesale and retail, owned and operated by WTCPUA.

1.4 Coordination with Regional Water Planning Groups

The service area of the WTCPUA is located within the Lower Colorado Regional Water Planning Area and WTCPUA will provide a copy of this Plan to the Lower Colorado Regional Water Planning Group (Region K).

2.0 DEFINITIONS

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

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

Agriculture water use: water use for fruit and vegetable gardens.

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

Customer: any person, company, or organization using water supplied by WTCPUA.

Domestic water use: use of water by an individual or a household to support its domestic activity. Such use may include consumption, washing, or cooking; irrigation of lawns, family garden or orchard; consumption by animals; and recreation including fishing, swimming, and boating. If the water is diverted, it must be diverted solely through the efforts of the user. Domestic use does not include water used to support activities for which consideration is given or received or for which the product of the activity is sold.

Industrial water use: water used in commercial processes, including commercial fish and shellfish production and the development of power by means other than hydroelectric. This does not include agricultural use.

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.

Livestock water use: water used for the open-range watering of livestock, exotic livestock, game animals or fur-bearing animals. For purposes of this definition, the terms “livestock” and “exotic livestock” are to be used as defined in § 142.001 of the Agriculture Code, and the terms “game animals” and “furbearing animals” are to be used as defined in §63.001 and §71.001, respectively, of the Parks and Wildlife Code.

“New landscape” means:

- a. Installed during construction of a new house, multi-family building, or commercial building;
- b. Installed as part of a governmental entity’s capital improvement project; or
- c. Alters more than one-half of the area of an existing landscape.

Non-essential water use: water uses that are not essential or are not required for the protection of public health, safety and welfare, such as:

- a. Irrigating landscape areas, including parks, athletic fields, and golf courses, except for as otherwise provided under this Plan;
- b. Washing any motor vehicle, motorbike, boat trailer, airplane, or other vehicle;
- c. Washing any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
- d. Washing 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. Filling, refilling, or adding to any indoor or outdoor swimming pools or Jacuzzi-type pools;
- g. Filling a fountain or pond for aesthetic or scenic purposes except when necessary to support aquatic life;
- h. Failure to repair a controllable leak within a reasonable period after having been directed to do so by formal notice; and
- i. Drawing from hydrants for construction purposes or any other purposes other than fire fighting or protecting public drinking water supplies.

Use of water for agriculture or livestock is not included in the definition of “non-essential water use.”

Retail Water Customer: an individual or entity that purchases water from an LCRA water utility for its consumption.

Wholesale Treated Water Customer: an individual or entity that purchases raw water from LCRA to sell to the public for consumption. The term does not include an individual or entity that supplies LCRA water to its employees, visitors, or tenants.

3.0 WATER CONSERVATION PLAN

3.1 Service Area Characteristics and Goals

The WTCPUA Water System provides water to about 8,000 commercial and residential customer accounts which represents an equivalent population of approximately 34,500. In addition, the WTCPUA Water System also provides water service for twelve wholesale water customers with an estimated equivalent population approximately 24,500 for a total population served of approximately 59,000.

The WTCPUA Water System serves mostly single-family residential homes, although the number of multi-family, mixed-use, and commercial customers has grown significantly in the past five years. The service area generally consists of residential and commercial development west of the City of Austin— in and around the City of Bee Cave, along Hamilton Pool Road, and along State Highway 290 from Austin to the City of Dripping Springs.

Appendix B includes tables that provide the baseline total water use, per capita water use and water loss for the WTCPUA Water System from 2016 through 2018. The three-year average for total gallons per capita per day water use (GPCD) was 124 which includes both wholesale and retail treated water customers. Of the 124 GPCD, 12.3 GPCD was attributable to unbilled water in 2018 (*e.g.*, losses, waterline & hydrant flushing, *etc.*), or 9.9 percent of total water use.

The water demands in this region more than triple during the summer months due to water for outdoor irrigation purposes. With this in mind, the WTCPUA has focused its conservation and demand management measures on outdoor water use, and will continue to expand this effort to meet the growing need for water in this system.

3.2 Water Conservation Goals

In accordance with Title 30 Texas Administrative Code, Chapter 288 rules, water conservation plans must have specific, quantified goals for municipal use in gallons per capita per day (GPCD). Water conservation goals for WTCPUA were established in 2014 using baseline data available at that time. Goals have been updated in 2019 per baseline data, which is shown in [Appendix B](#). [Appendix C](#) includes a TWDB Goal Form (No.1964). This form does not include Residential GPCD since this would require an extensive data processing effort in the customer database based on current tracking setup.

Conservation goals for the WTCPUA have been set for three metrics:

1. Total unit water use reduction (GPCD)
2. Peak day demand reduction (peak day/average day)
3. System-wide water loss reduction.

The five-year total unit water use reduction goal is five percent (5%), or a unit usage of 122 GPCD. The 10-year goal for total unit water use reduction is an additional five percent (5%), or a total unit usage of 116 GPCD.

3.3 Water Conservation Strategies

The water conservation strategies to meet these goals include measures to decrease outdoor water use, which will decrease overall water use and peak day demands, and strategies to reduce system-wide water loss. Additional strategies include expanded public education and outreach efforts.

3.3.1 Watering Schedule

In October 2014, the WTCPUA Board approved a plan to adopt a mandatory twice-weekly watering schedule for the West Travis County Regional Water System, to conserve water, and lower daily peak demand at the water treatment plant.

This schedule assumes an application rate of one inch of water per week in two half-inch applications. According to research, one inch of water per week is sufficient to sustain most residential lawns and landscapes. However, multiple applications on yards of shallow soil depth allow for less runoff and improved soil retention.

WTCPUA will continue this program, which begins on May 1 and runs through September 30. Based on data collected during summer 2018, WTCPUA's watering schedule, coupled with water conservation education and increased water rates, resulted in an estimated peak day demand savings of 0.8 MGD.

3.3.2 Increasing Block Water Rates

The West Travis County Regional Water System has a multi-tiered, increasing block water rate that reflects the cost drivers for the water systems and sends a water conservation price signal to customers.

Copies of the complete rates schedules for these systems are available on the WTCPUA web site.

3.3.3 LCRA Water Smart Rebates Program

The WTCPUA actively promotes, through its website and customer newsletters, LCRA's WaterSmart Rebates program, which can help offset the cost of upgrading irrigation systems, maintaining landscapes and pools, and installing rainwater harvesting equipment to help customers save water and money. LCRA provides rebates of 50 percent of the total cost, or up to \$600 per residential property, for irrigation evaluations, retrofitting or replacing irrigation system equipment, new pool filters and covers, aeration, compost and mulch, and rainwater harvesting equipment. In 2018, thirteen WTCPUA customers participated in the Water Smart Rebates Program.

3.3.4 Landscape Irrigation Standards

In June 2008, the Texas Commission on Environmental Quality (TCEQ) adopted new water efficiency rules for the design, installation, and maintenance of landscape irrigation systems, effective January 1, 2009. Compliance with the rules is required of municipalities with populations of 20,000 or more, and allows water districts to adopt and enforce them.

WTCPUA will evaluate adopting and enforcing supplemental standards for the design, installation, and maintenance of landscape irrigation systems in its retail utility service area.

3.3.5 Conservation Landscape Best Management Practices

WTCPUA reviews all applications for irrigation meters to ensure meters are sized correctly, landscape irrigation complies with WTCPUA’s two day a week watering restrictions, and best management practices (BMP) are followed.

3.3.6 Water Loss

WTCPUA has experienced rapid growth. In such systems, water loss typically occurs from construction flushing and theft. In addition, additional flushing is needed to maintain water quality in dead-end lines. WTCPUA evaluates the water losses for our systems and determines the best corrective actions to minimize those losses, which can include monthly audits and can include monthly audits or periodic inspections along distribution lines.

3.4 Adoption of Plan

Formal adoption of the Water Conservation Plan will be by a resolution from the West Travis County Public Utility Agency Board of Directors.

4.0 ADDITIONAL WATER CONSERVATION STRATEGIES

4.1 Water Monitoring and Records Management

WTCPUA maintains records of water distribution and sales through a central customer consumption tracking and billing system. The billing system provides a way to compile, present, and view water-use and billing information.

4.2 Water Metering

WTCPUA Water Contract Rules impose requirements on wholesale customers, which require all water meters to be accurate within plus or minus 5 percent of the indicated flow over the possible flow range. The meters are read on a monthly basis.

WTCPUA follows metering, leak detection and repair requirements as stated in the LCRA Water Conservation Plan Rules. Water is metered in and out of all WTCPUA water treatment plants.

The water use of all retail customers is also metered. A regularly scheduled maintenance program of meter repair and replacement is performed in accordance with the manufacturer's recommendations. Zero consumption accounts are checked to see if water is actually being used or not recorded.

4.3 Wholesale Water Conservation Plans

Wholesale treated water customers must develop a drought contingency and a water conservation plan in accordance with LCRA Water Contract Rules. The plans must include a governing board resolution, ordinance, or other official document noting that the plan has been formally adopted by the utility. Wholesale treated water customers must include in their wholesale water supply contracts the requirement that each successive wholesale customer develop and implement a water conservation and drought contingency plan.

WTCPUA provides technical assistance with the development and review of wholesale treated water customers' water conservation plans and programs. LCRA assists with the development of rules and regulations that encourage water conservation, such as adding water conservation components into landscape ordinances. Conservation education materials are available to wholesale customers for either no charge, or at a reduced rate.

WTCPUA requires drought contingency plans, which meet or exceed LCRA rules for drought contingency plans, for each of its wholesale treated water customers.

4.4 Education and Outreach

4.4.1 Water Conservation Public Awareness Program

WTCPUA posts its Water Conservation and Drought Contingency Plan, Water Conservation Tips and the LCRA WaterSmart Rebates program on its web site Home Page to promote and ensure customer awareness of water conservation. WTCPUA also promotes water conservation through quarterly newsletters, articles in the Lake Travis View, billing insert notifications, and alerts for changes in Drought Contingency Plan Stages. Finally, WTCPUA conducts two annual Customer Academies where customers attend a presentation of WTCPUA finances, rates, operations, regulatory compliance and conservation measures, and receive tours of the WTCPUA water plant and wastewater plants.

4.4.2 WaterSmart Landscaping for Central Texas

WTCPUA promotes and posts on its Web Site Home Page the LCRA WaterSmart landscape guidelines to help homeowners and homebuilders create well-designed, water-efficient landscapes.

4.4.3 Highland Lakes Firm Water Customer Cooperative (HLFWCC).

WTCPUA is a member of HLFWCC which is comprised of municipal utilities that have firm water wholesale contracts with LCRA. HLFWCC meets quarterly to discuss water utility management, conservation best management practices, and LCRA water plans. Feedback is provided through periodic meetings with LCRA.

4.4.4 Support and Participation in Other Organizations

WTCPUA supports and participates in organizations that promote water conservation, including the Central Texas Water Efficiency Network and Hill Country Alliance.

5.0 DROUGHT CONTINGENCY PLAN

5.1 Permanent Water Use Restrictions

The following restrictions apply to all West Travis County Public Utility Agency (WTCPUA) water utility systems on a year-round basis, regardless of water supply or water treatment plant production conditions.

According to the restrictions, a water user must not:

- (1) Fail to repair a controllable leak, including:
 - a. a broken sprinkler head,
 - b. a leaking valve,
 - c. leaking or broken pipes, or
 - d. a leaking faucet.
- (2) Operate an irrigation system with:
 - a. a broken head,
 - b. a head that is out of adjustment and the arc of the spray head is over a street or parking area, or
 - c. a head that is fogging or misting because of excessive water pressure.
- (3) During irrigation, allow water:
 - a. to run off a property and form a stream of water in a street for a distance of 50 feet or greater, or
 - b. to pool in a street or parking lot to a depth greater than one-quarter of an inch.
- (4) Irrigate outdoors using an in-ground irrigation system or hose-end sprinkler more than twice per week or outside of scheduled days and times as indicated below:

Residential Customers are allowed to use water for outside irrigation only on the following days, based upon their address:

- Addresses ending in 0,1,2,3: Monday and Thursday.
- Addresses ending in 4,5,6: Tuesday and Friday
- Addresses ending in 7,8,9: Wednesday and Saturday
- No outdoor watering allowed on Sundays

Commercial Customers (including large landscapes such as HOA common areas) are allowed to use water for outside irrigation only on the following days:

- Tuesday and Friday – all Commercial and HOAs may water landscapes
- No outdoor watering allowed on Sundays

Watering times are midnight to 10 a.m. and/or 7 p.m. to midnight

5.2 Triggering Criteria for Initiation and Termination of Drought Response Stages

The WTCPUA General Manager shall monitor water supply and demand conditions and shall determine when conditions warrant initiation and termination of each stage of the Drought Contingency Plan. Water supply conditions will be determined by the availability of the source of supply for each individual system, system capacity, and weather conditions. Demand will be measured by the peak daily demands on each system. Notification of the initiation or termination of drought response stages shall be by a variety of methods, possibly including local media, direct mail to each customer, the WTCPUA web site and signs posted at other public places.

The following triggering criteria shall apply to WTCPUA water utility systems:

(1) Stage 1 - Mild Water Shortage Conditions (Voluntary Measures-October 1-April 30)

Requirements for Initiation— Customers shall be requested to conserve water voluntarily and adhere to the Stage 1 Drought Response Measures unless Stage 2 or greater measures are initiated.

(2) Stage 2—Moderate Water Shortage Conditions (Mandatory Measures-May 1-September 30)

Requirements for initiation — Customers shall be required to comply with the Stage 2 Drought Response Measures of this Plan when the following triggering criteria are met:

- a. When total daily water demand equals or exceeds 80 percent of
 - i. the total design capacity of a WTCPUA water treatment plant for three consecutive days; or
 - ii. the total design capacity of the WTCPUA raw water transmission main for three consecutive days;
- b. When the combined storage level of Lakes Travis and Buchanan reaches 900,000 acre-feet and interruptible stored water supplies to the Lakeside, Gulf Coast, and Pierce Ranch irrigation operations are being curtailed in accordance with the LCRA DCP; or

Requirements for termination — Stage 2 of the Plan may be rescinded when:

- a. When water treatment plant capacity condition listed above as a triggering event has ceased to exist for five consecutive days; or
- b. LCRA announces that curtailment of water supplies to firm water customers is no longer required under the drought contingency measures

of the LCRA DCP; or

Upon termination of Stage 2, Stage 1 becomes operative.

(3) Stage 3 - Severe Water Shortage Conditions (Additional Mandatory Measures)

Requirements for initiation – Customers shall be required to comply with Stage 3 Drought Response Measures of this Plan when severe water shortage conditions exist. WTCPUA will recognize that a severe water shortage condition exists when either of the following criteria is met:

- a. When total daily water demand equals or exceeds 85 percent of:
 - i. the total design capacity of a WTCPUA water treatment plant for three consecutive days; or
 - ii. the total design capacity of the WTCPUA raw water transmission main for three consecutive days; or
- b. The LCRA Board determines a drought worse than the drought of record.

Requirements for termination — Stage 3 of the Plan may be rescinded when:

- a. The WTCPUA water treatment plant capacity condition listed above as a triggering event has ceased to exist for five consecutive days; or
- b. LCRA announces that curtailment of water supplies to firm water customers is no longer required under drought contingency measures of the LCRA DCP.

Upon termination of Stage 3, Stage 2 becomes operative.

(4) Stage 4 - Emergency Water Conditions

Initiation and termination of water emergencies will operate under measures listed in the LCRA Drinking Water Emergency Response Plan. A copy of this Plan is available upon request. The WTCPUA General Manager or designee will notify affected retail customers, wholesale customers, and the media of the initiation and termination of Stage 4. Examples of a water emergency include, but are not limited to, the following:

- a. Major water line breaks, loss of distribution pressure, or pump system failures that cause substantial loss in its ability to provide water service;
- b. Contamination of the water supply source;

- c. Any other emergency water supply or demand conditions that the WTCPUA General Manager or designee, determines to constitute a water supply emergency more severe than that contemplated in the triggers contained in the LCRA Water Management Plan; or

Upon declaration of Stage 4—Emergency Water Conditions, water use restrictions outlined in Stage 4 Emergency Response Measures shall immediately apply and be in effect until lifted by WTCPUA.

5.3 Drought Response Measures

The WTCPUA General Manager shall monitor reports of water supply and demand conditions and, in accordance with the triggering criteria set forth in Section 5.2 of the WTCPUA Drought Contingency Plan, shall determine that a mild, moderate, severe, or emergency condition exists and shall implement the following measures. Drought response measures are grouped into a category for retail customers and a category for wholesale treated water customers.

5.3.1 Targets for Water-Use Reductions

The target for all WTCPUA water utility systems required to implement their drought contingency plans based on water supply shortage will vary according to the severity and projected duration of the shortage. If the water system receives WTCPUA surface water, the system targets will follow the drought contingency plan targets adopted for the LCRA Water Management Plan.

5.3.2 Retail Customers

(1) Stage 1 - Voluntary Measures

Supply Management Measures:

WTCPUA will review system operations and identify ways to improve system efficiency and accountability.

Demand Management Measures:

Water Supply Reduction Target: Achieve a 5% reduction in water use.

- a. Provide consumer information and materials on water conservation measures and practices to retail customers
- b. Request that customers voluntarily comply with the water-use restrictions outlined in Stage 1 of this plan

(2) Stage 2- Mild Water Shortage - Mandatory Measures

Supply Management Measures:

In addition to measures implemented in Stage 1 of the plan, the WTCPUA will:

- a. Apply water-use restrictions prescribed for Stage 2 of the Plan to WTCPUA facilities for which Stage 2 has been declared.
- b. Discontinue water main and line flushing unless necessary for public health reasons; and
- c. Keep customers informed about issues regarding current and projected water supply and demand conditions.

Demand Management Measures:

Water Supply Reduction Target: Achieve a 10-20% reduction in water use.

Under threat of penalty as described in Section 5.4, the following water-use restrictions shall apply to all retail water customers:

Irrigation of Landscaped Areas:

- a. Irrigation of landscaped areas with hose-end sprinklers or in-ground irrigation systems shall be limited to a no more than a twice weekly watering schedule determined by WTCPUA and based on the nature of the current drought or water emergency.
- b. Outdoor watering hours will be limited to between midnight and 10 a.m. and between 7 p.m. and midnight on designated days. This prohibition does not apply to irrigation of landscaped areas if it is by means of:
 - i. Hand-held hose
 - ii. Faucet-filled bucket or water can of five gallons or less
- c. New landscapes may be installed and re-vegetation seeding performed under these specific criteria:
 - i. A completed variance form for new landscapes has been submitted to WTCPUA and has been approved prior to the installation of the landscape, or re-vegetation seed application;

and

- ii. Irrigation of the new landscape, or application follows the schedule identified in the new landscape variance:
 1. once a day for the first 10 days after installation;
 2. once every other day before 10 a.m. and after 7 p.m. for days 11 through 20 after installation;
 3. once every third day before 10 a.m. and after 7 p.m. for day 21 through 30 after installation.
- iii. Alternatives to re-vegetation may be available in times of low water supply. Specific information regarding such alternatives is available in the LCRA Highland Lakes Watershed Ordinance Technical Manual (sec. 3.2.8).
- iv. Variances for new landscapes and re-vegetation will be issued for the shortest period necessary to reasonably assure the landscapes survival. A variance is not an exemption from compliance with the permanent water use restrictions under *Permanent Water Restrictions* of this plan. Variances will not be granted for seasonal “color bed” or temporary grass installation (over seeding).

Vehicle Washing:

Use of water to wash any motor vehicle, such as a motorbike, boat, trailer, or airplane is prohibited except on designated watering days between the hours of midnight and 10 a.m. and between 7 p.m. and midnight. Such activity, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle. A vehicle may be washed any time at a commercial car wash facility or commercial service station. Further, this activity is exempt from these regulations if the health, safety, and welfare of the public are served by washing the vehicle, such as a truck used to collect garbage or used to transport food and perishables.

Pools:

- a. Filling of all new and existing swimming pools, hot tubs, wading pools, is prohibited, unless application for variance is approved on a case by case basis. Replenishing to maintenance level is permitted. Draining is permitted only onto pervious surfaces or onto a surface where water will be transmitted directly to a pervious surface, and only if:
 - i. Draining excess water from pool due to rain in order to lower water to maintenance level;

- ii. Repairing, maintaining or replacing pool components that have become hazardous; or
 - iii. Repair of a pool leak.
- b. Refilling of public/community swimming pools permitted only if pool has been drained for repairs, maintenance, or replacement as outlined in items above.

Outside Water Features:

Operation of outside water features, such as, but not limited to, fountains or outdoor misting systems, is prohibited, except where such features are designed and consistently maintained to sustain aquatic life or maintain water quality. WTCPUA may require proof of such design and consistent maintenance.

Ponds:

Ponds used for aesthetic, amenity, and/or storm water purposes may maintain water levels only necessary to preserve the integrity of the liner and operating system. WTCPUA may require proof of specific design documentation regarding a pond and the intended purpose.

Golf Courses:

Golf courses receiving water from the WTCPUA or WTCPUA wholesale customer must develop a drought contingency plan in accordance to the LCRA Drought Contingency Plan rules for firm water contracts and will implement its Stage 2 mandatory components.

Golf courses using alternative sources of water, such as reclaimed water, rainwater, or groundwater, and that supplement with LCRA raw water through the utility, will work with LCRA to develop appropriate measures to reduce the use of raw water consistent with a 10 – 20 % reduction in raw water use during Stage 2 conditions.

Events:

Events involving the use of water such as: car washes; festivals; parties; water slides; and other activities involving the use of water are permitted, if the water being used drains to a re-circulating device, or are used for a beneficial purpose such as watering landscaping to prevent water waste.

Restaurants:

All restaurants are encouraged to serve water to their patrons only upon request.

Fire Hydrants:

Use of water from fire hydrants shall be limited to firefighting and activities necessary to maintain public health, safety and welfare. Use of water from designated fire hydrants for construction purposes may be allowed under special conditions and will require a meter; a variance application must be submitted and approved before a hydrant meter will be provided.

Recreational Areas (Includes Parks and Athletic Fields):

The areas can only be used for designated or scheduled events or activities. Unnecessary foot traffic must be discouraged. Watering must follow irrigation of landscaped areas schedule. A variance can be applied for if necessary.

Water Waste:

The following uses of water are prohibited at all times during periods in which restrictions have gone into effect unless a variance has been approved:

- a. Washing sidewalks, walkways, driveways, parking lots, street, tennis courts, and other impervious outdoor surfaces; except for immediate health and safety;
- b. Washing buildings, houses or structures with a pressure washer or garden hose is prohibited for aesthetic purposes but permitted for surface preparation of maintenance work to be performed.
- c. Controlling dust, unless there is a demonstrated need to do so for reasons of public health and safety, or as part of a construction plan approved by a governmental entity;
- d. Flushing gutters or allowing a substantial amount of water to run off a property and accumulate in a gutter, street, or parking lot to a depth greater than one-fourth of an inch.

(3) Stage 3 - Moderate Water Shortage – Additional Mandatory Measures

Supply Management Measures:

In addition to measures implemented in the preceding stages of the plan, affected WTCPUA water utility systems will implement additional water control options to limit water to only critical use for protection of health and safety and maintenance of treatment quality.

Demand Management Measures:

Water Supply Reduction Target: Achieve a minimum 20% reduction in water use.

Under threat of penalty as described in Section 5.4, all retail customers are required to further reduce non-essential water uses as follows. All requirements of Stage 2 shall remain in effect during Stage 3, with the following modifications and additions:

Irrigation of Landscaped Areas:

Outdoor watering hours will be limited to between midnight and 6 a.m. on designated days. This prohibition does not apply to irrigation of landscaped areas if it is by means of:

- i. Hand-held hose
- ii. Faucet-filled bucket or water can of five gallons or less

No new landscapes may be installed. No variances will be approved.

Golf Courses:

Golf courses receiving water from a WTCPUA utility must develop a drought contingency plan in accordance with the LCRA Drought Contingency Plan rules for firm water contracts and will implement its Stage 3 mandatory components. Golf courses using alternative sources of water, such as reclaimed water, rainwater, or groundwater, and that supplement with LCRA raw water through the utility, with work with WTCPUA to develop appropriate measures to reduce the use of raw water consistent with a 20% reduction in raw water use during Stage 3 conditions.

Vehicle Washing:

Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle is prohibited. A vehicle can be washed at any time at a commercial

car wash facility or commercial service station. Further, this activity is exempt from these regulations if the health, safety, and welfare of the public are served by washing the vehicle, such as a truck used to collect garbage or used to transport food and perishables.

Pools:

Installation of swimming pools is prohibited. The filling or replenishing of water to swimming pools, hot tubs, wading pools, and other types of pools is prohibited. Public/community swimming pools may be exempt from this prohibition to maintain safe levels of water quality for human contact. Operation of splash pad type fountains is prohibited.

Events:

Events involving the use of water such as: car washes, festivals; parties; water slides; and other activities involving the use of water are prohibited.

Recreational Areas (Includes Parks and Athletic Fields):

The areas can only be used for designated or scheduled events or activities. Unnecessary foot traffic must be discouraged. Watering is prohibited except with a hand-held hose.

(4) Stage 4 - Severe Water Shortage – Additional Mandatory Measures

In addition to measures implemented in the preceding stages of the plan, affected WTCPUA water utility systems will implement additional water control options to limit water to only critical use for protection of health and safety and maintenance of treatment quality.

Water Supply Reduction Target: As determined by the WTCPUA Board of Directors.

Under threat of penalty for violation as described in Section 5.4, customers are required to eliminate non-essential water uses during an emergency. This includes, but is not limited to the following measures:

Outdoor watering will be restricted to:

	Addresses ending:
Monday	1, 3
Tuesday	2, 4
Wednesday	5, 7
Thursday	6, 8
Friday	9, 0
Saturday	All commercial & HOAs

Hours will be limited to between midnight and 6 a.m. on designated days. This prohibition does not apply to irrigation of landscaped areas if it is by means of a hand-held hose or a faucet-filled bucket or water can of five gallons or less.

Additionally:

- a. No new landscapes may be installed. No variances will be approved.
- b. Use of water for the irrigation of golf course greens, tees, and fairways is prohibited unless the golf course uses an alternative water supply source, such as reclaimed water, rainwater, or gray water
- c. Use of water from fire hydrants shall be limited to firefighting and activities necessary to maintain public health, safety, and welfare only.
- d. No applications for new, additional, expanded, or larger water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be allowed or approved.

(5) Stage 5 - Emergency Measures

Water Supply Reduction Target: As determined by the WTCPUA Board of Directors.

Under threat of penalty for violation as described in Section 5.4, customers are required to eliminate non-essential water uses during an emergency. This includes, but is not limited to the following measures:

- a. Irrigation of landscaped areas is prohibited.
- b. Use of water for the irrigation of golf course greens, tees, and fairways is prohibited unless the golf course uses an alternative water supply source, such as reclaimed water, rainwater, or gray water

- c. Use of water from fire hydrants shall be limited to firefighting and activities necessary to maintain public health, safety, and welfare only.
- d. No applications for new, additional, expanded, or larger water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be allowed or approved.

Additional measures may be added as needed.

5.3.3 Wholesale Customers

All WTCPUA wholesale treated water customers are required to develop and formally adopt drought contingency plans for their own systems in accordance with Title 30 Texas Administrative Code Sections 288.20 and 288.22. The measures of this Plan must be at least as stringent as the drought response measures required by WTCPUA for its retail customers. Wholesale treated water customers must include in their wholesale water supply contracts the requirement that each successive wholesale customer develop and formally adopt a drought contingency plan.

Stage 1 —Mild Water Shortage — Voluntary Measures

WTCPUA will contact wholesale treated water customers to discuss supply and demand conditions. WTCPUA will provide a limited supply of consumer information and materials on water conservation measures and practices to wholesale customers.

Stage 2 —Moderate Water Shortage — Mandatory Measures

WTCPUA will keep wholesale treated water customers informed about demand and current and projected water supply conditions. WTCPUA will initiate discussions with wholesale treated water customers about potential curtailment and the implementation of mandatory measures to reduce all non-essential water uses.

Stage 3 —Severe Water Shortage – Additional Mandatory Measures

WTCPUA will contact its wholesale treated water customers to initiate additional mandatory measures to control water demand and to ensure capacity for emergency response requirements. Additional mandatory measures will include the curtailment of non-essential water uses in accordance with the wholesale treated water customer's own drought contingency plan.

In addition, if the Stage 3 triggering criteria is based on a water supply shortage, WTCPUA will initiate the curtailment of water provided to wholesale treated water customers on a *pro rata* basis. The wholesale treated water customer's monthly allocation of water shall be based on a percentage of the customer's baseline water use.

The percentage will be determined by the WTCPUA General Manager and may be adjusted as conditions warrant.

Stage 4 —Emergency Measures

Additional measures may be added as necessary to ensure only essential use of water.

Watering Stage table

Stage 1	Stage 2	Stage 3	Stage 4	Emergency
Voluntary – October 1 st . to April 30 th .	Mandatory – May 1 st . to September 30 th .	Mandatory	Mandatory	Mandatory
Two days per week, two times per day.	Two times per week, two times per day. (30 hrs.)	Two times per, week, one time per day. (12 hrs.)	One time per week, one time per day. (6 hrs.)	None

5.4 Conservation and Drought Contingency Plan Implementation

5.4.1 Public Notification

WTCPUA will periodically provide information about the drought contingency components of this plan, including (1) the conditions under which each stage of the Plan is to be initiated or terminated, and (2) the drought response measures to be implemented at each stage. This information will be provided by various means depending on the audience, including articles in the local media and special materials mailed to customers and available on the WTCPUA web site.

5.4.2 Enforcement for Retail Customers

The following enforcement provisions shall apply to all WTCPUA retail water customers:

- a. No person shall knowingly or intentionally allow the use of water from a WTCPUA water utility system for residential, commercial, industrial, agricultural, ornamental, 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.
- b. Except as otherwise provided in this Section 5.4.2, any person who violates this Plan shall be subject to the following surcharges and conditions of service:
 - i. Following the first documented violation, the violator shall be given a notice specifying the type of violation and the date and time it was observed.

- ii. Following the second documented violation, the violator shall be sent by certified mail a notice of violation and shall be assessed a surcharge of \$200;
 - iii. Following the third documented violation, the violator shall be sent by certified mail a notice of violation and shall be assessed a surcharge of \$700;
 - iv. Following the fourth documented violation, the WTCPUA Board of Directors or it's designee 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 reconnection charge, hereby established at \$500, and any other costs incurred by a WTCPUA water utility system in discontinuing service, and any outstanding charges including late payment fees or penalties. In addition, suitable assurance in the amount of a deposit of \$500 must be given to the WTCPUA Board of Directors or it's designee, that the same action shall not be repeated while the Plan is in effect. The WTCPUA Board of Directors or it's designee may apply the deposit to any surcharges or penalties subsequently assessed under this Plan against a customer. Any remaining amount of such deposit, if any, shall be returned to the customer at the time of the customer's voluntary disconnection from the utility system.
- c. Compliance with this Plan also may be sought through injunctive relief in district court. Each day that one or more of the provisions in this Plan is violated shall constitute a separate violation. Any person, including one classified as a water customer of the WTCPUA, in apparent control of the property where a violation occurs or originates, shall be presumed to be the violator. Any such person, however, shall have the right to show that he or she did not commit the violation. Parents shall be presumed to be responsible for violations of their minor children, but any such parent may be excused if he proves that he had previously directed the child not to use the water in violation of this Plan and that there is no reasonable expectation that parent could have known about the violation. Table 5-1 shows the progressive steps of the drought response enforcement process for retail customers.

Table 5-1: Drought Response Retail Enforcement Process

First documented violation	Notice of violation issued Customer is notified of actions to be taken if violations continue
Second documented violation	Issue surcharge No. 1 \$200
Third documented violation	Issue surcharge No. 2 \$700
Fourth documented violation	Cut-off service \$500 reconnection fee and \$500 deposit required

5.4.3 Enforcement for Wholesale Customers

Wholesale treated water customers shall provide WTCPUA with an order, ordinance, or resolution to demonstrate adequate enforcement provisions for the wholesale customer’s own conservation and drought contingency plan.

In addition, wholesale treated water customers who fail to comply with the conservation and drought contingency measures in the Plan may be subject to civil penalties or any other remedies available to WTCPUA by law or under the terms of the raw water or wholesale water contracts and subject to the penalties in Table 5-2 below:

Table 5-2: Wholesale Customer Drought Response Violation Penalties

First documented violation	Written notice of violation
Second documented violation	Penalty fee up to \$2,000
Third documented violation	Penalty fee up to \$10,000

5.4.4 Variances

- a. The WTCPUA Board of Directors or it’s designee may grant variances:
 - i. From specific applications of the outdoor water schedule, providing that the variances do not increase the time allowed for watering but rather alter the schedule for watering; and,
 - ii. Allowing the use of alternative water sources that do not increase demand on potable water sources for outdoor use. Variance requests may be submitted to Water Customer Services and need not meet the requirements of subsection (b) below.

- b. WTCPUA Board of Directors or it’s designee may grant in writing temporary variances for existing water uses otherwise prohibited under this Plan if it is determined that failure to do so would cause an emergency adversely affecting the public health, sanitation, or fire protection, and if one or more of the following conditions are met:

- i. Compliance with this Plan cannot be accomplished during the duration of the time the Plan is in effect, or
 - ii. Alternative methods can be implemented that will achieve the same level of reduction in water use.
- c. Persons requesting a variance from the provisions of this Plan shall file a petition for variance with WTCPUA Customer Service any time the Plan or a particular drought response stage is in effect. The WTCPUA General Manager, or designee, will review petitions for variances. The petitions shall include the following:
 - i. Name and address of the petitioner
 - ii. Purpose of water use
 - iii. Specific provision of the Plan from which the petitioner is requesting relief.
 - iv. Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm the petitioner or others will sustain if petitioner complies with this Plan
 - v. Description of the relief requested
 - vi. Period of time for which the variance is sought
 - vii. 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
 - viii. Other pertinent information
- d. Variances shall be subject to the following conditions, unless waived or modified by the WTCPUA Board of Directors or it's designee:
 - i. Variances granted shall include a timetable for compliance.
 - ii. Variances granted shall expire when the Plan, or its requirements, is no longer in effect, unless the petitioner has failed to meet specified requirements.

No variance shall be retroactive or otherwise excuse any violation occurring before the variance was issued.

5.4.5 Plan Updates

The Plan will be reviewed consistent with LCRA and TCEQ rules and updated based on developments in the WTCPUA water service area.

5.4.6 Drought Surcharge

In order to offset the impact of lost revenues resulting from extended periods of implementing water conservation/drought contingency measures and/or due to

implementation of LCRA raw water supply curtailments, the Board of Directors may assess a Drought Surcharge as authorized in the WTCPUA's Tariff, as may be amended from time to time.

5.4.7 Notification to LCRA and TCEQ

The WTCPUA shall notify the LCRA General Manager and the TCEQ Executive Director in writing within five (5) business days of the implementation of any mandatory provisions of this Drought Contingency Plan.

Appendix A – Adherence to TCEQ Chapter 288 Rules

As a municipal water supplier, the minimum requirements in the Texas Administrative Code for water conservation plans for municipal uses by public water suppliers are covered in this Plan as follows:

- 288.2 (a)(1)(A) – Utility Profile – Section 2.1, 3.1
- 288.2 (a)(1)(C) – Specific, Quantified Five and Ten Year Goals – Section 2.2, 3.2
- 288.2 (a)(1)(D) – Measure and Account Water Diverted – Section 4.1, 4.2
- 288.2 (a)(1)(E) – Universal Metering – Section 4.2
- 288.2 (a)(1)(F) – Measures to Determine and Control Unaccounted-for Uses of Water – Section 4.2
- 288.2 (a)(1)(G) – Continuing Public Education and Outreach – Section 4.4
- 288.2 (a)(1)(H) – Rate Structure that is not Promotional – Section 2.3.2, 3.3.2
- 288.2 (a)(1)(I) – Reservoir Systems Operation Plan –Water Management Plan.
- 288.2 (a)(1)(J) – Means of Implementation and Enforcement – Section 1.1, 1.6
- 288.2 (a)(1)(K) – Coordination with Regional Water Planning Group(s) – Section 1.4
- 288.2 (a)(2)(A) – Program for Leak Detection, Repair and Water Loss Accounting – Section 3.3.1
- 288.2 (a)(2)(B) – Record Management System with Customer Classification – Section 4.1
- 288.2 (a)(2)(C) – Wholesale Customer Conservation Plan Requirement – Section 4.3
- 288.2 (a)(3) – Additional Conservation Strategies – Section 2.3, 4.4

As a municipal water supplier, the minimum requirements in the Texas Administrative Code for drought contingency plans for municipal uses by public water suppliers are covered in this Plan as follows:

- 288.20 (a)(1)(A) – Public Input – Section 1.2
- 288.20 (a)(1)(B) – Continuing Public Education – Section 4.4
- 288.20 (a)(1)(C) – Coordination with Regional Water Planning Group(s) – Section 1.4
- 288.20 (a)(1)(D) – Monitoring and Criteria for the Initiation and Termination of Drought Response Stages – Section 5.2
- 288.20 (a)(1)(E) – Emergency Response Stages – Section 5.3
- 288.20 (a)(1)(F) – Water Use Reduction Targets – Section 5.3
- 288.20 (a)(1)(G) – Water Supply or Water Demand Management Measures – Section 5.3
- 288.20 (a)(1)(H) – Procedures for the Initiation or Termination of Drought Stages and Public Notification – Section 5.2,5.3,5.4.1
- 288.20 (a)(1)(I) – Variances Procedures – Section 5.4.4
- 288.20 (a)(1)(J) – Enforcement of Mandatory Water Use Restrictions – Section 5.4.2, 5.4.3

Appendix B – Water Conservation Goals

Total Water Pumped/Diverted (MG)

Month	2016	2017	2018	3 Year Average
Jan	293.03	294.10	364.25	317.13
Feb	316.06	338.88	244.45	299.80
Mar	416.05	267.53	236.33	306.64
Apr	445.44	520.48	467.52	477.81
May	331.96	499.57	402.52	411.35
Jun	482.36	378.61	687.17	516.05
Jul	462.24	812.47	586.31	620.34
Aug	809.78	625.85	818.68	751.44
Sep	452.13	562.15	668.47	560.92
Oct	479.69	547.10	305.25	444.01
Nov	522.08	396.22	299.20	405.83
Dec	441.56	366.13	297.22	368.30
Total	5452.38	5609.09	5377.37	5479.61
Average daily use (MGD)	4.87	5.01	4.80	4.89

Total Water Sold (MG)

Month	2016	2017	2018	3 Year Average
Jan	110.82	126.74	143.37	126.98
Feb	116.70	120.18	112.19	116.36
Mar	135.68	138.77	157.09	143.85
Apr	130.13	180.48	194.71	168.44
May	130.61	208.21	240.89	193.24
Jun	193.58	238.27	291.62	241.16
Jul	275.25	305.29	338.83	306.46
Aug	260.29	278.31	332.47	290.36
Sep	218.89	238.31	230.89	229.36
Oct	206.80	209.59	130.84	182.41
Nov	165.09	182.12	128.53	158.58
Dec	113.66	137.59	117.64	122.96
Total	2057.50	2363.86	2419.07	2280.14
Gross yearly water loss	62.3%	57.9%	55.0%	2.403188104

_____ Water Conservation Plan: Baseline Water Use

Peak Day (MGD) and Peak Day/Average Day Ratio								
Year	Peak Day	Date Occurred	Peak/Ave Day	5-Year Reduction Goal	Year	GPCD* Water Loss		
2016	14.52	8/10/2016	2.9832		2016	9.8		
2017	14.43	8/17/2017	2.8819		2017	10.3		
2018	15.79	8/29/2018	3.2894		2018			
		Average:	3.0515	2.7500	90%			
2018 Population					58807			
2018 GPCD*					83.18			
Water Use Reduction Goal								
				5-year goal	79.02	95%		
				10-year goal	75	90%		

* GPCD = Gallons per person per day.

Appendix C – TWDB Goal Form (No. 1964)

Water Conservation Plan Goals Table
 TWDB Form No.1964
 Revised 12/14/2012 1:53 PM



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

Facility Name: WTC PUA

Water Conservation Plan Year: 2019

	Historic 5yr Average	Baseline	5-yr Goal for year <u>2024</u>	10-yr Goal for year <u>2029</u>
Total GPCD ¹	129	125	122	116
Residential GPCD ²				
Water Loss (GPCD) ³	18	12.3	6.1	5.8
Water Loss (Percentage) ⁴	14 %	10 %	5%	5 %

- 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