

# ATTACHMENT “B”



City of Keller, Texas  
P.O. Box 770  
Keller, Texas 76244

## **DRAFT** Drought Contingency and Emergency Water Management Plan

Developed to comply with the requirements of  
The Texas Commission on Environmental Quality  
and The Texas Water Development Board

PWS# 2200096

Adopted by Ordinance No. **XXXX**:

Effective  
**April XX, 2019**



## TABLE OF CONTENTS

1.0	INTRODUCTION AND OBJECTIVES .....	1-1
2.0	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES.....	2-1
3.0	DROUGHT CONTINGENCY AND EMERGENCY WATER MANAGEMENT PLAN .....	3-1
3.1	Provisions to Inform the Public and Opportunity for Public Input.....	3-1
3.2	Provisions for Continuing Public Education and Information .....	3-1
3.3	Initiation and Termination of Drought Contingency and Emergency Water Management Stages .....	3-2
3.4	Drought Contingency and Emergency Water Management Plan Stages and Measures .....	3-3
3.5	Procedures for Granting Variances to the Plan .....	3-16
3.6	Procedures for Enforcing Mandatory Water Use Restrictions.....	3-16
3.7	Coordination with Other Entities .....	3-17
3.8	Review and Update of Drought Contingency and Emergency Water Management Plan...	3-17

## APPENDICES

<b>Appendix A</b>	List of References
<b>Appendix B</b>	Texas Commission on Environmental Quality Rules on Drought Contingency Plans <ul style="list-style-type: none"><li>• Texas Administrative Code Title 30, Part 1, Chapter 288, Subchapter B, Rule §288.20 – Drought Contingency Plans for Municipal Uses by Public Water Suppliers</li></ul>
<b>Appendix C</b>	Letters to Region C Planning Group, TRWD, and Fort Worth
<b>Appendix D</b>	Adoption of Drought Contingency and Water Emergency Response Plan

## **1.0 INTRODUCTION AND OBJECTIVES**

The City of Keller (Keller) has prepared this *Drought Contingency and Emergency Water Management Plan* in accordance with the requirements established by the Texas Commission on Environmental Quality (TCEQ), as well as the Texas Administrative Code in effect on January 21, 2019.<sup>1</sup> Keller purchases treated water from the City of Fort Worth (Fort Worth), who purchases raw water from Tarrant Regional Water District (TRWD). As a wholesale water customer of Fort Worth, Keller is required to institute and apply the same rationing, conservation measures and restrictions to the use of water as Fort Worth. This Plan complies with the requirements established in the City of Fort Worth *Drought Contingency and Emergency Water Management Plan for Retail and Wholesale Water Customers* adopted April XX, 2019.<sup>2</sup>

This Plan addresses all of the current TCEQ requirements for a Drought Contingency Plan which are included in Appendix B. This Plan replaces the Plan included in Ordinance 1700 dated April 17, 2014. The measures included in this *Drought Contingency and Emergency Water Management Plan* are intended to provide short-term water savings during drought or emergency conditions. Water savings associated with ongoing, long-term strategies are discussed in the City of Keller *Water Conservation Plan*.<sup>3</sup>

The purpose of this *Drought Contingency and Emergency Water Management Plan* is as follows:

- To conserve the available water supply in times of drought and emergency
- To maintain supplies for domestic water use, sanitation, and fire protection
- To protect and preserve public health, welfare, and safety
- To minimize the adverse impacts of water supply shortages
- To minimize the adverse impacts of emergency water supply conditions

In the absence of drought response measures, water demands tend to increase during a drought due to increases in outdoor irrigation. The severity of a drought depends on the degree of depletion of water supplies, and on the relationship of demand to available supplies. Keller considers a drought to begin or end when Fort Worth has made the determination that the drought has begun or ended.

<sup>1</sup> Superscripted numbers match references listed in Appendix A.

## **2.0 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES**

TCEQ rule Title 30, Part 1, Chapter 288, subchapter A, rule 288.1 defines a drought contingency plan as “a strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies.”<sup>1</sup>

The TCEQ rules governing development of Drought Contingency Plans for public water suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.20 of the Texas Administrative Code, a current copy of which is included in Appendix B.

TCEQ’s minimum requirements for Drought Contingency Plans are addressed in the following subsections of this report:

- 288.20(a)(1)(A) – Provisions to Inform the Public and Provide Opportunity for Public Input – Section 3.1
- 288.20(a)(1)(B) – Provisions for Continuing Public Education and Information – Section 3.2
- 288.20(a)(1)(C) – Coordination with the Regional Water Planning Group – Section 3.7
- 288.20(a)(1)(D) – Criteria for Initiation and Termination of Drought Contingency and Water Emergency Response Stages – Section 3.3
- 288.20(a)(1)(E) – Drought Contingency and Water Emergency Response Stages – Section 3.4
- 288.20(a)(1)(F) – Specific, Quantified Targets for Water Use Reductions – Section 3.4
- 288.20(a)(1)(G) – Water Supply and Demand Management Measures for Each Stage – Section 3.4
- 288.20(a)(1)(H) – Procedures for Initiation and Termination of Drought Contingency and Water Emergency Response Plan Stages – Section 3.3
- 288.20(a)(1)(I) - Procedures for Granting Variances – Section 3.5
- 288.20(a)(1)(J) - Procedures for Enforcement of Mandatory Restrictions – Section 3.6
- 288.20(a)(3) – Consultation with Wholesale Supplier – Section 3.3
- 288.20(b) – Notification of Implementation of Mandatory Measures – Section 3.4
- 288.20(c) – Review and Update of Plan – Section 3.8

### **3.0 DROUGHT CONTINGENCY AND EMERGENCY WATER MANAGEMENT PLAN**

#### **3.1 PROVISIONS TO INFORM THE PUBLIC AND OPPORTUNITY FOR PUBLIC INPUT**

The City of Keller provided opportunity for public input in the development of this *Drought Contingency and Emergency Water Management Plan* by the following means:

- Providing written notice of the proposed Plan and the opportunity to comment on the plan by posted notice, and notice on the City's web site ([www.cityofkeller.com](http://www.cityofkeller.com)).
- Making the draft plan available on the City's web site ([www.cityofkeller.com](http://www.cityofkeller.com)).
- Providing the draft plan at City Hall for anyone to review upon request.
- Providing opportunity for public comment on the plan at a City Council Meeting held on April XX, 2019.

#### **3.2 PROVISIONS FOR CONTINUING PUBLIC EDUCATION AND INFORMATION**

The City of Keller will inform and educate the public about the *Drought Contingency and Emergency Water Management Plan* by the following means:

- Preparing fact sheets describing the plan and making these available online and at various City of Keller sites, as well as at events where the Public Works Department may have a booth.
- Posting a copy of the Plan on the City's website ([www.cityofkeller.com](http://www.cityofkeller.com)).
- Notifying local organizations, schools, and civic groups that staff are available to make presentations on the Plan.
- Providing a public feedback comment window on the City of Keller's website.

At any time that this *Drought Contingency and Emergency Water Management Plan* is activated or the stage changes, the City will notify local media of the issues, the current response stage (if applicable), and the specific actions required of the public. The information will also be publicized on the City of Keller's website (if available). Billing inserts may also be used as appropriate.

### **3.3 INITIATION AND TERMINATION OF DROUGHT CONTINGENCY AND EMERGENCY WATER MANAGEMENT STAGES**

The provisions of this Plan shall apply to all persons, customers, and property utilizing potable water provided by the City of Keller. The terms “person” and “customer” as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities. The Plan does not apply to locations using treated wastewater effluent, private wells, or possessing their own water rights in the Trinity River.

The Plan may be applied to the entire city or geographic portions of the city as necessary. If the Plan is applied only to a limited sector, the boundaries will be defined in terms of roadways, creeks and other easily distinguishable features, such as city limits.

#### Initiation of a Drought Contingency or Emergency Water Management Stage

The City Manager or his/her official designee may order the implementation of a Drought Contingency or Emergency Water Management stage when one or more of the trigger conditions for that stage is met. The following actions will be taken when a Drought Contingency or Emergency Water Management stage is initiated:

- The public will be notified through local media and the City’s web site as described in Section 3.2.
- The City of Fort Worth and Tarrant Regional Water District (TRWD) will be notified by telephone and with a follow-up letter, or email that provides details of the reasons for initiation of the Drought or Emergency Water Management stage.
- The City will notify the Executive Director of the TCEQ within 5 business days when mandatory provisions of the Plan are activated.

Stages imposed by the City of Fort Worth must be initiated by the City of Keller per the wholesale water contract with the City of Fort Worth.

For other trigger conditions internal to the City, the City Manager or his/her official designee may decide not to order the implementation of a drought response or water emergency stage even though one or more of the trigger criteria for the stage are met. Factors which could influence such a decision include, but are not limited to, the time of the year, weather conditions, the anticipation of replenished water supplies, or the anticipation that additional facilities will become available to meet needs. The reason for this decision should be documented.

### Termination of a Drought Contingency or Emergency Water Management Stage

The City Manager or his/her official designee may order the termination of a Drought Contingency or Emergency Water Management stage when the conditions for termination are met or at his/her discretion. The following actions will be taken when a Drought Contingency or Emergency Water Management stage is terminated:

- The public will be notified through local media and the City's web site as described in Section 3.2.
- The City of Fort Worth and TRWD will be notified by telephone with a follow-up letter or email.
- If any mandatory provisions of the *Drought Contingency or Emergency Water Management Plan* that have been activated are terminated, the City will notify the Executive Director of the TCEQ within 5 business days.

The City Manager or his/her official designee may decide not to order the termination of a drought response stage or water emergency even though the conditions for termination of the stage are met. Factors which could influence such a decision include, but are not limited to, the time of the year, weather conditions, or the anticipation of potential changed conditions that warrant the continuation of the drought stage. The reason for this decision should be documented.

## **3.4 DROUGHT CONTINGENCY AND EMERGENCY WATER MANAGEMENT PLAN STAGES AND MEASURES**

### **Stage 1 – Water Watch**

#### Triggering Conditions

- Keller's water demand reaches or exceeds 90% of reliable delivery capacity for three consecutive days. The delivery capacity could be citywide or in a specified portion of the system.
- Keller's water supply sources or water distribution system becomes contaminated.
- Keller's water demand for all or part of the delivery system approaches delivery capacity because delivery capacity is inadequate.

- Keller's water supply system is unable to deliver water due to the failure or damage of major water system components.
- Fort Worth initiates Stage 1 – Water Watch for one or more of the following reasons:
  - Total raw water supply in TRWD western and eastern division reservoirs drops below 75% (25% depleted) of conservation storage.
  - Water demand for all or part of the TRWD delivery system exceeds delivery capacity because delivery capacity is inadequate.
  - One or more of TRWD's water supply sources has become limited in availability.
  - Water demand is projected to approach the limit of TRWD's permitted supply.
  - TRWD's supply source becomes contaminated.
  - TRWD's water supply system is unable to deliver water due to the failure or damage of major water system components.
  - The TRWD General Manager finds that conditions warrant the declaration of a Stage 1 drought.

#### Terminating Conditions for Stage 1

Stage 1 will terminate when Fort Worth terminates its Stage 1 condition, or when the circumstances that caused the initiation of Stage 1 no longer prevail.

#### Goals for Use Reduction for Stage 1

The goal for water use reduction under Stage 1 – Water Watch is five percent (5%). If circumstances warrant, or if required by the City of Fort Worth, the City Manager or his/her official designee can set a goal for greater water use reduction.

#### Actions Available for Stage 1

The City Manager or his/her official designee may order the implementation of any or all of the actions listed below, as deemed necessary to achieve a five percent reduction in water use. The City Manager or his/her official designee must implement any action(s) required by the City of Fort Worth.



All Water Users

Initiate mandatory restrictions to prohibit non-essential water use as follows:

- Continue actions described in the Water Conservation Plan
- Prohibit hosing of paved areas, such as sidewalks, driveways, parking lots, tennis courts, patios, or other impervious surfaces, except to alleviate an immediate health or safety hazard. This may include premises with raw or processed food, pharmaceutical or vaccine processing, storage or vending establishments including restaurants and grocery stores may be washed to the extent necessary for sanitary purposes. These areas may also include:
  - Trash and dumpster areas
  - Areas around fuel pumps
  - Store front cleaning of areas with accumulated bird droppings, feathers and debris
  - Localized spot cleaning of parking areas to remove oil, grease buildup that may pose a health and safety issue.
- Prohibit hosing of buildings or other structures for purposes other than fire protection or surface preparation prior to painting.
- Prohibit using water in such a manner as to allow runoff or other waste, including:
  - failure to repair a controllable leak, including a broken sprinkler head, a leaking valve, leaking or broken pipes, or a leaking faucet;
  - operating a permanently installed 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 lot; or (c) a head that is misting because of high water pressure;
  - during irrigation, allowing water to (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 pond in a street or parking lot to a depth greater than one-quarter of an inch; or
  - allowing or causing an irrigation system or other lawn watering device to operate during any form of precipitation or when temperatures are at or below 32 degrees Fahrenheit.
- Increase enforcement of the landscape watering restriction from the Water Conservation Plan to prohibit outdoor watering with sprinklers or irrigation systems between 10 a.m. and 6 p.m.

- Increase the enforcement of the landscape watering restriction from the Water Conservation Plan to limit landscape watering with sprinklers or irrigation systems at each service address to a twice per week schedule as outlined below. This includes landscape watering of parks, golf courses, and sports fields.
  - Residential addresses ending in an even number (0, 2, 4, 6, or 8) may water on Wednesdays and Saturdays.
  - Residential addresses ending in an odd number (1, 3, 5, 7 or 9) may water on Thursdays and Sundays.
  - All non-residential locations (apartment complexes, businesses, industries, parks, medians, etc.) may water on Tuesdays and Fridays.

Exceptions:

- Lawns and landscaping may be watered on any day, at any time, by handheld hose, drip irrigation, a soaker hose or tree bubbler. (The intent of this measure is to allow for the protection of structural foundations, trees, and other high value landscape materials).
- Water use necessary for the repair of an irrigation system, plumbing line, fountain, etc. in the presence of the person making the repair.
- Outdoor watering at service addresses with large multi-station irrigation systems may take place in accordance with a variance granted by the Director of Public Works, if the Director determines that a property cannot be completely irrigated with an average of three-quarters of an inch of water in a single day, and that the property should be divided into sections to be irrigated on different days. If approved, no station will be watered more than twice per week.
- Establishing new turf is discouraged. If hydromulch, grass sod, or grass seed is installed for the purpose of establishing a new lawn, there are no watering restrictions for the first 30 days while it is being established. After that, the watering restrictions set forth in this stage apply. (This does not include over seeding with rye, or seasonal grasses, since turf already exists.)

- Golf courses may water greens and tee boxes as necessary, however watering must be done before 10 a.m. and after 6 p.m. Golf courses are encouraged to reduce water use by five percent.
- Skinned areas of sports fields may be watered as needed for dust control.
- Watering of athletic fields (fields only, does not include surrounding landscaped areas) used for organized sports practice, competition, or exhibition events may occur as necessary to protect the health and safety of the players, staff, or officials present for athletic events. Owners of such athletic fields are encouraged to reduce water use by five percent.

Exception Requiring a Variance:

- Public areas that are open to the public at-large and have a high-impact from frequent use may be allowed additional watering, with a variance granted by the Public Works Director, if it is deemed to be beneficial to serve and protect the community amenity. Examples may include but are not limited to: outdoor amphitheaters, demonstration gardens, public art exhibitions, outdoor learning areas, arboretums, etc.
- Discourage the filling, draining, or refilling of swimming pools, wading pools, hot tubs and Jacuzzi type pools except to maintain adequate water levels for structural integrity, proper operation and maintenance, and/or to alleviate an issue that poses a public safety risk.
- All users are encouraged to use native and adapted drought tolerant plants in landscaping.
- Washing of any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle shall be limited to the use of a bucket or a hand-held hose equipped with a positive-pressure shutoff nozzle for quick rinses. Vehicle washing may be done at any time on the premises of a commercial car wash or commercial service station. Companies with an automated on-site vehicle washing facility may wash its vehicles at anytime. Further, such washing may be exempt from these requirements if the health, safety, and welfare of the public are contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.

City and Local Governments

In addition to the actions listed above:

- Review conditions and problems that caused Stage 1. Take corrective action.
- Increase public education efforts on ways to reduce water use.
- Increase enforcement efforts.
- Intensify leak detection and repair efforts.
- Audit all city and local government irrigation systems to ensure proper condition, settings, and operation.
- Identify and encourage voluntary reduction measures by high-volume water users through water use audits.
- Reduce non-essential water use. As used herein, non-essential water uses are those that do not have any health or safety impact and are not needed to meet the core function of the agency.
- Per the contract, wholesale customers of Fort Worth are required to institute and apply the same rationing, conservation measures or restrictions to the use of water by their customers for so long as any part of their total water supply is being furnished by Fort Worth.

#### Commercial or Industrial

- All actions listed above for all water users apply to commercial and industrial users.
- Stock at commercial plant nurseries is exempt from Stage 1 watering restrictions.
- Hotels, restaurants, and bars are encouraged to serve drinking water to patrons on an “on demand” basis.
- Hotels are encouraged to implement laundry conservation measures by encouraging patrons to reuse linens and towels.
- Car wash facilities must keep equipment in good working order, which should include regular inspections to be sure there are no leaks, broken or misdirected nozzles, and that all equipment is operating efficiently.
- All commercial and industrial customers are encouraged to audit irrigation systems.

#### **Stage 2 – Water Warning**

##### Triggering Conditions

- Keller's water demand reaches or exceeds 95% of reliable delivery capacity for three consecutive days. The delivery capacity could be citywide or in a specified portion of the system.
- Keller's water supply sources or water distribution system becomes contaminated.
- Keller's water demand for all or part of the delivery system approaches delivery capacity because delivery capacity is inadequate.
- Keller's water supply system is unable to deliver water due to the failure or damage of major water system components.
- Fort Worth initiates Stage 2 – Water Warning for one or more of the following reasons:
  - Total raw water supply in TRWD western and eastern division reservoirs drops below 60% (40% depleted) of conservation storage.
  - Water demand for all or part of the TRWD delivery system exceeds delivery capacity because delivery capacity is inadequate.
  - One or more of TRWD's water supply sources has become limited in availability.
  - Water demand is projected to approach the limit of TRWD's permitted supply.
  - TRWD's supply source becomes contaminated.
  - TRWD's water supply system is unable to deliver water due to the failure or damage of major water system components.
  - The TRWD General Manager finds that conditions warrant the declaration of a Stage 2 drought.

#### Terminating Conditions for Stage 2

Stage 2 may terminate when Fort Worth terminates its Stage 2 condition, or when the circumstances that caused the initiation of Stage 2 no longer prevail.

#### Goals for Use Reduction for Stage 2

The goal for water use reduction under Stage 2 is a reduction of ten percent (10%). If circumstances warrant or if required by the City of Fort Worth, the City Manager or official designee can set a goal for greater water use reduction.

#### Actions Available for Stage 2

The City Manager or his/her official designee may order the implementation of any of the actions listed below, as deemed necessary. The City Manager or his/her official designee must implement any action(s) required by the Tarrant Regional Water District.

- Continue or initiate any actions available under Stage 1.
- Initiate engineering studies to evaluate water supply alternatives should conditions worsen.

#### All Water Users

- Limit landscape watering with sprinklers or irrigation systems to a once per week schedule at each service address as determined by the Director of Public Works. This includes landscape watering at parks, golf courses, and sports fields. Keller may use a different watering schedule than the one used for Fort Worth retail customers as long as it limits each service address to once per week schedule; however, use of the same schedule would simplify the messages passed to customers through the news media.

#### Exceptions:

- Lawns and landscaping may be watered on any day, at any time, by handheld hose, drip irrigation, a soaker hose, or tree bubbler. (The intent of this measure is to allow for the protection of structural foundations, trees, and other high value landscape materials). If drip irrigation or a soaker hose is used to water a foundation, the system must be placed within 24-inches of the foundation and must not produce a spray of water above the ground. Tree watering is limited to an area not to exceed the drip line of the tree.
- Outdoor watering at service addresses with large multi-station irrigation systems may take place in accordance with a variance granted by the Director of Public Works, if the director determines that a property cannot be completely irrigated with an average of three-quarters of an inch of water in a single day, and that the property should be divided into sections to be irrigated on different days. If approved, no station will be watered more than once per week.
- Golf courses may water greens and tee boxes as needed to keep them alive, however watering must be done before 10 a.m. and after 6 p.m. Fairways are restricted to once per week watering as outlined above. Golf course rough cannot be watered.

- Watering of athletic fields (fields only, does not include surrounding landscaped areas) used for organized sports practice, competition, or exhibition events may occur as necessary to protect the health and safety of the players, staff, or officials present for athletic events. Owners of such athletic fields are encouraged to reduce water use by 10 percent.
- All users are encouraged to wait until the current drought or emergency situation has passed before establishing new landscaping and turf. Variances granted for establishing new turfgrass or landscaping will be for a maximum of 30 days from the date of approval. After that, the watering restrictions set forth in this stage apply. (This does not include over seeding with rye since turf already exists.)
- Prohibit use of water for dust control, except as required to protect public health.
- Prohibit the operation of ornamental fountains or ponds that use potable water except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.
- Discourage the filling, draining, or refilling of swimming pools, wading pools, hot tubs and Jacuzzi type pools except to maintain adequate water levels for structural integrity, proper operation and maintenance, and/or to alleviate an issue that poses a public safety risk.
- Encourage the use of covers for all types of pools, hot tubs, and Jacuzzi type pools when not in use.

#### City and Local Governments

- Review conditions or problems that caused Stage 2. Take corrective action.
- Increase frequency of media releases on water supply conditions.
- Further accelerate public education efforts on ways to reduce water use.
- Eliminate non-essential water use. As used herein, non-essential water uses are those that do not have any health or safety impact and are not needed to meet the core function of the agency.
- Prohibit wet street sweeping.

- Per the contract, wholesale customers of Fort Worth are required to institute and apply the same rationing, conservation measures or restrictions to the use of water for so long as any part of their total water supply is being furnished by Fort Worth.

#### Commercial or Industrial

- All actions listed above for all water users apply to commercial and industrial users.
- Use of water from fire hydrants for any purpose other than firefighting related activities or other activities necessary to maintain public health, safety and welfare requires a variance issued by the Director of Public Works. Fire hydrant use may be limited to only designated hydrants. Upon declaration of this drought stage, all holders or applicants of a Water Fire Hydrant Meter Agreement are required to apply for a variance as set forth in this plan. If conditions allow, as determined by the Director of Public Works, the use of water from hydrants may continue until the Director of Public Works or his/her designee issues a determination on the petition for variance. If conditions do not allow, the Director of Public Works may require all fire hydrant meters be immediately returned from the field, pending determination of each petition for variance.

### **Stage 3 – Emergency Water Use**

#### Triggering Conditions

- Keller’s water demand has reached or exceeds 98% of reliable delivery capacity for one day. The delivery capacity could be citywide or in a specified portion of the system.
- Keller’s water supply sources or water distribution system becomes contaminated.
- Keller’s water demand for all or part of the delivery system approaches delivery capacity because delivery capacity is inadequate.
- Keller’s water supply system is unable to deliver water due to the failure or damage of major water system components.
- Fort Worth initiates Stage 3 – Emergency Water Use, which may also be initiated by one or more of the following:
  - Total raw water supply in TRWD western and eastern division reservoirs drops below 45% (55% depleted) of conservation storage.
  - Water demand exceeds the amount that can be delivered to customers.



- Water demand for all or part of the TRWD delivery system exceeds delivery capacity because delivery capacity is inadequate.
- One or more of TRWD's water supply sources has become limited in availability.
- Water demand is projected to approach or exceed the limit of TRWD's permitted supply.
- TRWD's supply source becomes contaminated.
- TRWD's water supply system is unable to deliver water due to the failure or damage of major water system components.
- The TRWD General Manager finds that conditions warrant the declaration of a Stage 3 drought.

#### Terminating Conditions for Stage 3

Stage 3 may terminate when Fort Worth terminates its Stage 3 condition, or when the circumstances that caused the initiation of Stage 3 no longer prevail.

#### Goals for Use Reduction for Stage 3

The goal for water use reduction under Stage 3 is a reduction of twenty percent (20%). If circumstances warrant or if required by the City of Fort Worth, the City Manager or official designee can set a goal for greater water use reduction.

#### Actions Available for Stage 3

The City Manager or his/her official designee may order the implementation of any of the actions listed below, as deemed necessary. The City Manager or his/her official designee must implement any action(s) required by the Tarrant Regional Water District.

- Continue or initiate any actions available under Stages 1 and 2.

#### All Water Users

- Prohibit landscape watering, including at parks, golf courses, and sports fields.

#### Exceptions:

- Watering with hand-held hose, soaker hose or drip irrigation system may occur any day and any time. (The intent of this measure is to allow for the protection of structural foundations, trees, and other high value landscape materials). If drip irrigation or a soaker

hose is used to water a foundation, the system must be placed within 24-inches of the foundation, and must not produce a spray of water above the ground. Tree watering is limited to an area not to exceed the drip line of the tree.

- Golf course greens only may be watered by hand-held hose as needed to keep them alive, however watering must be done before 10 a.m. or 6 p.m.
- Watering of athletic fields (fields only, does not include surrounding landscaped areas) used for organized sports practice, competition, or exhibition events may occur as necessary to protect the health and safety of the players, staff, or officials present for athletic events may be allowed to water by variance. A water management plan must be submitted to the Public Works Director detailing how each area will comply with Stage 3 drought measures.
- Prohibit establishment of new landscaping. Variances may be granted for those landscape projects started prior to the initiation of Stage 3 drought restrictions.
- Vehicle washing restricted to commercial car wash, commercial service station or a private on-site vehicle washing facility and can only be done as necessary for health, sanitation, or safety reasons, including but not limited to the washing of garbage trucks and vehicles used to transport food and other perishables. All other vehicle washing is prohibited.
- Prohibit the operation of ornamental fountains or ponds that use potable water except where necessary to support aquatic life.
- Prohibit the draining, filling, or refilling of swimming pools, wading pools and Jacuzzi type pools. Existing private and public pools may add water to maintain pool levels; however they may not be refilled using automatic fill valves.
- Prohibit hosing of buildings or other structures for purposes other than fire protection or surface preparation prior to painting with high-pressure equipment. Must be performed by a professional power washing service utilizing high efficiency equipment and a vacuum recovery system where possible.

#### City and Local Governments

In addition to actions listed above:

- Continue or initiate any actions available under Stages 1 and 2.

- Review conditions or problems that caused Stage 3. Take corrective action.
- Implement viable alternative water supply strategies.
- Increase frequency of media releases explaining emergency situation.
- Reduce city and local government water use to maximum extent possible.
- Prohibit the permitting of new swimming pools, Jacuzzi type pools, spas, ornamental ponds and fountain construction. Pools already permitted and under construction may be completely filled with water.
- Institute a mandated reduction in deliveries to all wholesale customers. Such a reduction will be distributed as required by Texas Water Code §11.039.
- If Fort Worth has imposed a reduction in water available to customers, impose the same percent reduction on Keller's customers.
- Per the contract, wholesale customers of Fort Worth are required to institute and apply the same rationing, conservation measures or restrictions to the use of water by their customers for so long as any part of their total water supply is being furnished by Fort Worth.

#### Commercial or Industrial

- All actions listed above for all water users apply to commercial and industrial users.
- Hotels, restaurants, and bars required to serve drinking water to patrons only on an "on demand" basis.
- Hotels are required to implement laundry conservation measures by encouraging patrons to reuse linens and towels.
- Stock at commercial plant nursery may be watered only with a hand-held hose, hand-held watering can, or drip irrigation system.
- Commercial and industrial water users required to reduce water use by a set percentage determined by the Director of Public Works.
- Use of water from hydrants for any purpose other than firefighting related activities or other activities necessary to maintain public health, safety and welfare requires a special permit issued by the Director of Public Works. Fire hydrant use may be limited to only designated hydrants.

### **3.5 PROCEDURES FOR GRANTING VARIANCES TO THE PLAN**

The Director of Public Works or his/her official designee may grant temporary variances for existing water uses otherwise prohibited under this *Drought Contingency and Emergency Water Management Plan* if one or more of the following conditions are met:

- Failure to grant such a variance would cause an emergency condition adversely affecting health, sanitation, or fire safety for the public or the person or entity requesting the variance.
- Compliance with this plan cannot be accomplished due to technical or other limitations.
- Alternative methods that achieve the same level of reduction in water use can be implemented.

Variances shall be granted or denied at the discretion of the Director of Public Works or his/her official designee. All petitions for variances should be in writing, using the forms provided, and must include the following information:

- Name and address of the petitioner(s)
- Purpose of water use
- Specific provisions from which relief is requested
- Detailed statement of the adverse effect of the provision from which relief is requested
- Description of the relief requested
- Period of time for which the variance is sought
- Detailed schedule of irrigation that shows a reduction in use over the 30 day period for new lawns and landscapes. Schedule should be designed so that at the end of the 30 day period, lawn and landscaped areas can adhere to the twice per week schedule defined in Stage 1.
- Alternative measures that will be taken to reduce water use
- Other pertinent information.

### **3.6 PROCEDURES FOR ENFORCING MANDATORY WATER USE RESTRICTIONS**

Mandatory water use restrictions may be imposed in Stages 1, 2, and 3. These mandatory water use restrictions will be enforced by warnings and penalties as follows:

- On the first violation, customers will be given a written warning that they have violated the mandatory water use restriction.
- On the second and subsequent violations, citations may be issued to customers, with minimum and maximum fines established by ordinance.
- After three violations have occurred, the utility may cut off water service to the customer.

Appendix D contains a copy of the City of Keller City ordinance adopting this Plan and the enforcement actions and penalties.

### **3.7 COORDINATION WITH OTHER ENTITIES**

The City of Keller's retail service area is located entirely within the Region C water planning area and the Tarrant Regional Water District. Appendix C includes copies of the letters sent to the Chair of the Region C Water Planning Group, the Tarrant Regional Water District, and the City of Fort Worth with a copy of this Plan.

### **3.8 REVIEW AND UPDATE OF DROUGHT CONTINGENCY AND EMERGENCY WATER MANAGEMENT PLAN**

As required by TCEQ rules, Keller will review this *Drought Contingency and Emergency Water Management Plan* at least every five years. The Plan will be updated as appropriate based on new or updated information.

## ***Appendix A***

### ***List of References***



## **APPENDIX A**

### **LIST OF REFERENCES**

1. Title 30 of the Texas Administrative Code, Part 1, Chapter 288, Subchapter B, Rule 288.20, downloaded from [http://texreg.sos.state.tx.us/public/readtac\\$ext.ViewTAC?tac\\_view=2&ti=30](http://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=2&ti=30), January 21, 2019.
2. City of Fort Worth, *Drought Contingency and Emergency Water Management Plan for Retail and Wholesale Water Customers*, April 2019.
3. Freese and Nichols, Inc., *Water Conservation Plan*, prepared for the City of Keller, April 2019.

## ***Appendix B***

### ***Texas Commission on Environmental Quality Rules on Drought Contingency Plans***



## **APPENDIX B**

# **TEXAS COMMISSION OF ENVIRONMENTAL QUALITY RULES ON DROUGHT CONTINGENCY PLANS**

**TITLE 30** ENVIRONMENTAL QUALITY

**PART 1** TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**CHAPTER 288** WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS,  
GUIDELINES AND REQUIREMENTS

**SUBCHAPTER B** DROUGHT CONTINGENCY PLANS

**RULE §288.20 Drought Contingency Plans for Municipal Uses by Public Water Suppliers**

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(a) A drought contingency plan for a retail public water supplier, where applicable, must include the following minimum elements.

(1) Minimum requirements. Drought contingency plans must include the following minimum elements.

(A) Preparation of the plan shall include provisions to actively inform the public and affirmatively provide opportunity for public input. Such acts may include, but are not limited to, having a public meeting at a time and location convenient to the public and providing written notice to the public concerning the proposed plan and meeting.

(B) Provisions shall be made for a program of continuing public education and information regarding the drought contingency plan.

(C) The drought contingency plan must document coordination with the regional water planning groups for the service area of the retail public water supplier to ensure consistency with the appropriate approved regional water plans.

(D) The drought contingency plan must include a description of the information to be monitored by the water supplier, and specific criteria for the initiation and termination of drought response stages, accompanied by an explanation of the rationale or basis for such triggering criteria.

(E) The drought contingency plan must include drought or emergency response stages providing for the implementation of measures in response to at least the following situations:

- (i) reduction in available water supply up to a repeat of the drought of record;
- (ii) water production or distribution system limitations;
- (iii) supply source contamination; or
- (iv) system outage due to the failure or damage of major water system components (e.g., pumps).

(F) The drought contingency plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. The entity preparing the plan shall establish the targets. The goals established by the entity under this subparagraph are not enforceable.

(G) The drought contingency plan must include the specific water supply or water demand management measures to be implemented during each stage of the plan including, but not limited to, the following:

- (i) curtailment of non-essential water uses; and
- (ii) utilization of alternative water sources and/or alternative delivery mechanisms with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.).

(H) The drought contingency plan must include the procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of the public.

(I) The drought contingency plan must include procedures for granting variances to the plan.

(J) The drought contingency plan must include procedures for the enforcement of mandatory water use restrictions, including specification of penalties (e.g., fines, water rate surcharges, discontinuation of service) for violations of such restrictions.

(2) Privately-owned water utilities. Privately-owned water utilities shall prepare a drought contingency plan in accordance with this section and incorporate such plan into their tariff.



(3) Wholesale water customers. Any water supplier that receives all or a portion of its water supply from another water supplier shall consult with that supplier and shall include in the drought contingency plan appropriate provisions for responding to reductions in that water supply.

(b) A wholesale or retail water supplier shall notify the executive director within five business days of the implementation of any mandatory provisions of the drought contingency plan.

(c) The retail public water supplier shall review and update, as appropriate, the drought contingency plan, at least every five years, based on new or updated information, such as the adoption or revision of the regional water plan.

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**Source Note:** The provisions of this §288.20 adopted to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective October 7, 2004, 29 TexReg 9384

## ***Appendix C***

### ***Letters to Region C Planning Group, TRWD and Fort Worth***

## **APPENDIX C**

### **LETTERS TO REGION C WATER PLANNING GROUP, TRWD AND FORT WORTH**

Date

Mr. Kevin Ward, Chair  
Region C Water Planning Group  
c/o Trinity River Authority  
P.O. Box 60  
Arlington, TX 76004

Dear Mr. Ward:

Enclosed please find a copy of the **April 2019** *Drought Contingency and Emergency Water Management Plan* (which is an update to the June 2014 *Drought Contingency and Emergency Water Management Plan*) for the City of Keller. I am submitting a copy of this plan to the Region C Water Planning Group in accordance with the Texas Water Development Board and Texas Commission on Environmental Quality rules. The City Council of Keller adopted the updated Plan on **April XX, 2019**.

Sincerely,

Alonzo Liñán, P.E.  
Director of Public Works  
City of Keller

City of Keller



Date

Mr. Jim Oliver, General Manager  
Tarrant Regional Water District  
800 East Northside Drive  
Fort Worth, TX 76102

Dear Mr. Oliver:

Enclosed please find a copy of the **April 2019** *Drought Contingency and Emergency Water Management Plan* (which is an update to the June 2014 *Drought Contingency and Emergency Water Management Plan*) for the City of Keller. I am submitting a copy of this plan to the Tarrant Regional Water District in accordance with the Texas Water Development Board and Texas Commission on Environmental Quality rules. The City Council of Keller adopted the updated Plan on **April XX, 2019**.

Sincerely,

Alonzo Liñán, P.E.  
Director of Public Works  
City of Keller

City of Keller



Date

Mr. Chris Harder, P.E., Water Director  
Fort Worth Water Department  
P.O. Box 870  
Fort Worth, TX 76101

Dear Mr. Harder:

Enclosed please find a copy of the **April 2019** *Drought Contingency and Emergency Water Management Plan* (which is an update to the June 2014 *Drought Contingency and Emergency Water Management Plan*) for the City of Keller. I am submitting a copy of this plan to the City of Fort Worth in accordance with the Texas Water Development Board and Texas Commission on Environmental Quality rules. The City Council of Keller adopted the updated Plan on June 17, 2014.

Sincerely,

Alonzo Liñán, P.E.  
Director of Public Works  
City of Keller

## ***Appendix D***

# ***Adoption of Drought Contingency and Emergency Water Management Plan***



## **APPENDIX D**

### **ADOPTION OF DROUGHT CONTINGENCY AND WATER EMERGENCY RESPONSE PLAN**