

DROUGHT CONTINGENCY AND EMERGENCY WATER MANAGEMENT PLAN

MAY 2024



Tarrant Regional Water District
800 East Northside Drive
Fort Worth, TX 76102

ACKNOWLEDGEMENTS

Tarrant Regional Water District (TRWD) has modified this plan to maintain a consistent and regional approach to water conservation, drought response and emergency water management strategies. Certain sections of the plan were customized to meet the needs of TRWD customers. The plan was prepared pursuant to Texas Commission on Environmental Quality rules.

This document was originally approved by the TRWD Board of Directors on April 16, 2024. Questions regarding this Drought Contingency and Emergency Water Management Plan can be directed to the Governmental Affairs Department at conservation@trwd.com.

1. DROUGHT CONTINGENCY AND EMERGENCY WATER MANAGEMENT PLAN

1.1 Introduction

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.

Tarrant Regional Water District (TRWD) and its customer cities experienced Stage 1 drought restrictions from 2011-2012 and 2013-2015. Fortunately, water supply reservoirs have not dropped below 75% capacity since. With that experience, TRWD has taken a more active role in educating the public about the importance of reducing water waste and being prepared for the next drought.

1.2 State Requirements for Drought Contingency Plans

This drought contingency and emergency water management plan is consistent with the Texas Commission on Environmental Quality (TCEQ) guidelines and requirements for the development of drought contingency plans by wholesale water suppliers, contained in Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.22 of the Texas Administrative Code. This rule is included in Appendix B.

Minimum Requirements

TCEQ's minimum requirements for drought contingency plans are addressed in the following subsections of this report:

- 288.22(a)(1) – Provisions to Inform the Public and Provide Opportunity for Public Input – Section 11.3
- 288.22(a)(2) – Coordination with the Regional Water Planning Group – Section 11.9
- 288.22(a)(3) – Criteria for Initiation and Termination of Drought Stages – Section 11.4
- 288.22(a)(4) – Drought and Emergency Response Stages – Section 11.5
- 288.22(a)(5) – Procedures for Initiation and Termination of Drought Stages – Section 11.5

- 288.22(a)(6) – Specific, Quantified Targets for Water Use Reductions – Section 11.5
- 288.22(a)(7) – Specific Measures to Be Implemented during Each Drought Stage – Section 11.5
- 288.22(a)(8) – Provision for Wholesale Contracts to Require Water Distribution According to Texas Water Code §11.039 – Sections 11.5 and 11.6.
- 288.22(a)(9) – Procedures for Granting Variances to the Plan – Section 11.7
- 288.22(a)(10) – Procedures for Enforcement of Mandatory Restrictions – Section 11.8
- 288.22(b) – Notification of Implementation of Mandatory Measures – Section 11.4
- 288.22(c) – Review and Update of Plan – Section 11.10

1.3 Provisions to Inform the Public and Opportunity for Public Input

TRWD provided opportunity for public input in the development of this drought contingency and emergency water management plan by the following means:

- Several meetings with customer representatives were held to discuss and coordinate the development of this plan.
- TRWD will provide the draft plan to anyone requesting a copy.
- The proposed plan was posted to SaveTarrantWater.com web site (April 2024) providing the public an opportunity to review and comment on the plan in writing.
- Public comment was available at the Tarrant Regional Water District board meeting held at in Fort Worth at 9:00 a.m. on Tuesday, April 16, 2024.

1.4 Initiation and Termination of Drought Response Stages

Initiation of Drought Response Stage

The General Manager may order the implementation of a drought response stage or water emergency when one or more water supply trigger conditions is met. The following actions will be taken when a drought stage is initiated:

- The designated representative(s) of primary wholesale customers will be notified by email, mail, telephone, or fax that provides details of the reasons for initiation of the drought stage.
- The public will be notified through local media following the notification of primary wholesale customers.
- If any mandatory provisions of the drought contingency plan are activated, TRWD will notify TCEQ within five business days.

Notwithstanding the foregoing, the General Manager may decide, under special circumstances, not to order the implementation of a drought response stage or water emergency 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 year, weather conditions, the anticipation of replenished water supplies, or the anticipation that additional facilities will become available to meet needs.

The trigger conditions in this plan pertaining to TRWD's system volume were established following an intensive study of the North Texas climate and its impact on water supplies by Hydros Consulting, Inc. (Hydros), an engineering firm based in Boulder, Colorado. The 2007 study projected the effects of simulated weather patterns on the combined storage capacity of TRWD reservoirs. Using computer simulations, Hydros compared the water savings that would be achieved at various trigger points with and without outdoor watering restrictions in place. Under severe drought conditions, the estimated water savings that would be achieved by implementing this plan would extend water supplies by several weeks. In late 2023/early 2024, Hydros completed a sensitivity analysis of TRWD's water supply system to variations in the existing drought triggers. The sensitivity analysis included updated infrastructure, operations, permitting, supplies and demands, and evaluated whether adjusting the existing drought triggers would have a meaningful impact on water supply availability. Based on the results of the analysis, staff has determined the best decision for the system and TRWD water customers at this time is to maintain the same drought trigger conditions as the previous plan.

Termination of a Drought Stage

The General Manager will order the termination of a drought response stage or water emergency when the conditions for termination are met. The following actions will be taken when a drought stage is terminated:

- The designated representative(s) of primary wholesale customers will be notified by email, mail, telephone, or fax that provides details of the reasons for termination of the drought stage.
- The public will be notified through local media following the notification of primary wholesale customers.
- When mandatory provisions of the drought contingency plan that have been activated are terminated, TRWD will notify the Executive Director of the TCEQ within five business days.

Notwithstanding the foregoing, the General Manager may decide, under special circumstances, not to order the termination of a drought response stage or water emergency even though conditions for termination of the stage are met. Factors which could influence such a decision include, but are not limited to, the time of year, weather conditions, or the anticipation of potential changes in conditions that warrant the continuation of the drought stage.

1.5 Drought and Emergency Response Stages and Measures

Stage 1, Water Watch

Triggering and Terminating Conditions

- Total combined raw water supply in TRWD water supply reservoirs (Bridgeport, Eagle Mountain, Richland Chambers and Cedar Creek) drops below 75% (25% depleted) of conservation storage capacity.
- Water demand has exceeded or is expected to exceed 80% of maximum sustainable production of delivery capacity for an extended period.
- One or more of TRWD's water supply sources has become limited in availability.
- Water demand is projected to approach the limit of permitted supply.
- Supply source becomes contaminated or unusable for other regulatory reasons (i.e., invasive species).
- Water supply system is unable to deliver water due to the failure or damage of major water system components.
- The General Manager finds that conditions warrant the declaration of a Stage 1 drought.

Subject to preceding paragraphs regarding the Termination of a Drought Response stage, Stage 1, Water Watch, will be terminated when the total combined raw water supply in TRWD's West Fork and East Texas reservoirs exceeds 95% of conservation storage or remains above 85% for 90 consecutive days, whichever occurs first.

Goal for Use Reduction

The goal for water use reduction under Stage 1, Water Watch, is to decrease use by five percent. If circumstances warrant, the General Manager can set a goal for greater water use reduction.

Water Use Reduction Actions under Stage 1, Water Watch

The General Manager may order the implementation of any of the actions listed below, as deemed necessary. Measures imposing mandatory requirements on customers require notification to TCEQ. TRWD must notify TCEQ within five business days if any mandatory measures are implemented.

- Require customers (including indirect customers) to initiate Stage 1 in their drought contingency plans. Indirect customers include any successive wholesale customers of TRWD's primary wholesale customers to the extent provided for in water sales contracts.

All Water Users

- Maximum of twice per week watering for hose-end sprinklers and automatic irrigation systems based on odd/even addresses and day of week schedule.

Stage 1, Water Watch, Outdoor Watering Schedules		
Monday	No Outdoor Watering	Water System Recovery Day
Tuesday and Friday	Non-Residential Sites	Apartments, Parks, Common Areas, HOA's, Businesses
Wednesday and Saturday	Residential Addresses Ending in Even Numbers	0,2,4,6,8
Thursday and Sunday	Residential Addresses Ending in Odd Numbers	1,3,5,7,9

Exceptions:

- Watering with a handheld hose, soaker hose or drip irrigation may occur any day and any time.
- Watering of trees and structural foundations may occur any day and any time by means of handheld hose, soaker hose, or drip irrigation.
- The use of water necessary to protect the health, safety, or welfare of the public.
- Water use necessary for the repair of an irrigation system, plumbing line, fountain, etc. in the presence of person making repair.
- Variances may be available for the following:
 - Establishing new turfgrass and/or landscaping. Variances granted for establishing new turfgrass or landscaping will be for a maximum of 30 days from the date of approval then maximum of twice per week watering schedule applies.
 - Variances do not apply to the installation (over seeding) of cool season grasses.
 - Outdoor watering at addresses with large multi-station irrigation systems may take place in accordance with a variance granted by TRWD, if TRWD determines that a property cannot be completely irrigated under the twice per week schedule. Under such variance, no irrigation station will be allowed to water more than twice per week.
 - Areas open to the public and have high-impact from frequent use may be allowed additional watering with a variance granted by TRWD if it is deemed to be beneficial to serve and protect the community facility or amenity.

- Restrictions do not apply to locations using well water, reclaimed water, or other alternative water sources.
- No watering with hose-end sprinklers and/or automatic spray irrigation systems between the hours of 10 a.m. and 6 p.m.
- Prohibit using water in such a manner as to allow runoff or other waste, including:
 - failure to repair a controllable leak, including, broken sprinkler heads, leaking valves, leaking or broken pipes or faucets;
 - operating an irrigation system with: (a) a broken head; (b) a head that is out of adjustment and spraying into the street, parking area, or sidewalk; or (c) a system that is misting/fogging due to excessive water pressure; or
 - allowing any water to: (a) run off property forming a stream of water for a distance of 50 feet or greater; (b) run into a storm drain; or (c) pond to a depth of ¼ inch or greater; 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.
- All users are encouraged to use native and adapted drought tolerant plants in landscaping.
- Discourage hosing of paved areas.
- Discourage hosing of buildings or other structures for purposes other than fire protection or surface preparation prior to painting or maintenance.
- Washing of any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle shall be limited to the use of a hand-held 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 automated on-site vehicle washing facilities may wash its vehicles at any time.
- 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.

City and Local Governments

- 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.
- Landscape watering of municipal parks, golf courses and athletic fields is restricted to a twice per week watering schedule; or twice per week per irrigation station if a variance is granted by TRWD. (See exceptions to outdoor watering restrictions in all water users category above for facilities with large multi-station irrigation systems.)

Exceptions:

- Golf courses may water greens and tee boxes as necessary, however, use of spray irrigation may not be done between 10 a.m. and 6 p.m. Encouraged to reduce water use by five percent.
- Watering of athletic fields (field 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. Encouraged to reduce water use by five percent.
- Reduce non-essential water use. As used herein, non-essential water uses are those that do not have a health or safety impact and are not needed to meet the core function of the agency.
- Notify wholesale customers of actions being taken and request them to implement the same drought stage and measures.

Commercial or Industrial

- All actions listed above for all water users apply to commercial and industrial users.
- Landscape watering of parks, golf courses and athletic fields is restricted to the twice per week watering schedule; or twice per week per irrigation station if a variance is granted by the water provider. (See exceptions to outdoor watering restrictions in all water users category above for facilities with large multi-station irrigation systems.)

Exceptions:

- Golf courses may water greens and tee boxes as necessary, however, use of spray irrigation may not be done between 10 a.m. and 6 p.m. Encouraged to reduce water use by five percent.
- Watering of athletic fields (field 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. Encouraged to reduce water use by 5 five percent.
- Stock at commercial plant nurseries is exempt from Stage 1 watering restrictions.

- Hotels, restaurants, and bars are encouraged to serve drinking water to patrons per request only.
- 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 to ensure proper condition, settings, and operation. If irrigation audit or repair occurs during restricted watering times or days, a sign indicating such work is taking place must be placed in public view until job is completed.

Stage 2, Water Warning

Triggering and Terminating Conditions

- Total raw water supply in TRWD water supply reservoirs (Bridgeport, Eagle Mountain, Richland Chambers and Cedar Creek) drops below 60% (40% depleted) of conservation storage capacity.
- Water demand has exceeded or is expected to exceed 85% of maximum sustainable production of delivery capacity for an extended period.
- One or more of TRWD's water supply sources has become limited in availability.
- Water demand is projected to approach the limit of permitted supply.
- Supply source becomes contaminated or unusable for other regulatory reasons (i.e. invasive species).
- Water supply system is unable to deliver water due to the failure or damage of major water system components.
- The General Manager finds that conditions warrant the declaration of a Stage 2 drought.

Subject to preceding paragraphs regarding the Termination of a Drought Response stage, Stage 2, Water Warning, will be terminated when the Total combined raw water supply in TRWD's West Fork and East Texas reservoirs exceeds 75% of conservation storage or remains at or above 70% for 30 consecutive days, whichever occurs first.

Goal for Use Reduction

The goal for water use reduction under Stage 2, Water Warning, is to decrease use by 10 percent. If circumstances warrant, the General Manager can set a goal for greater water use reduction.

Water Use Reduction Actions under Stage 2, Water Warning

The General Manager may order the implementation of any of the actions listed below, as deemed necessary. The General Manager may order the implementation of additional actions not listed below, as deemed necessary. Measures imposing mandatory requirements on customers require notification to TCEQ. TRWD must notify TCEQ within five business days if any mandatory measures are implemented.

- Continue actions under Stage 1.
- Require customers (including indirect customers) to initiate Stage 2 in their drought contingency plans. Indirect customers include any wholesale customer of TRWD's primary wholesale customers to the extent provided for in water sales contracts.
- Initiate engineering studies to evaluate water supply alternatives should conditions worsen.

All Water Users

- Maximum of once per week watering for hose-end sprinklers and automatic irrigation systems at each service address.
- An effort will be made by TRWD and its primary customers to coordinate once per week watering schedules to simplify messages passed to customers through the news media. However, due to the variation in water storage and delivery systems of TRWD customers, specific watering days per address may vary across TRWD's service area.

Exceptions:

- Watering with a handheld hose, soaker hose or drip irrigation may occur any day and any time.
- Watering of trees and structural foundations may occur any day and any time by means of handheld hose, soaker hose, or drip irrigation.
- Variances may be available through TRWD for the following:
 - All users are encouraged to wait until the current drought or emergency situation has passed before establishing new landscaping. Variances granted for establishing new turfgrass or landscaping will be for a maximum of 30 days from the date of approval then maximum of once-per-week watering schedule applies.
 - Variances do not apply to the installation (over seeding) of cool season grasses.
 - Outdoor watering at addresses with large multi-station irrigation systems may take place in accordance with a variance granted by TRWD, if TRWD determines that a property cannot be completely irrigated under the once per week schedule. Under such variance, no irrigation station will be allowed to water more than once per week.

- Areas open to the public and have high-impact from frequent use may be allowed additional watering with a variance granted by TRWD if it is deemed to be beneficial to serve and protect the community facility or amenity.
- Restrictions do not apply to well water, reclaimed water, or other alternative water sources.
- Encourage the use of covers for all types of pools, hot tubs, and Jacuzzi type pools when not in use.

City and Local Governments

In addition to the actions listed above:

- Continue actions under Stage 1.
- 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.
- Landscape watering of municipal parks, golf courses and athletic fields is restricted to a once-per-week schedule; or once-per-week per irrigation station if a variance is granted by the water provider. (See Stage 1 exceptions to outdoor watering restrictions in all water users category for facilities with large multi-station irrigation systems.)

Exceptions:

- Golf courses may water greens and tee boxes as necessary, however, use of spray irrigation may not be done between 10 a.m. and 6 p.m. Encouraged to reduce water use by ten percent.
- Watering of athletic fields (field 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. Encouraged to reduce water use by ten percent.
- 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.
- Notify wholesale customers of actions being taken and request them to implement the same drought stage and measures.

Commercial or Industrial

- All actions listed above for all water users apply to commercial and industrial users.
- Landscape watering of municipal parks, golf courses and athletic fields is restricted to a once-per-week schedule; or once-per-week per irrigation station if a variance

is granted by the water provider. (See Stage 1 exceptions to outdoor watering restrictions in all water users category for rules that apply to facilities with large multi-station irrigation systems.)

Exceptions:

- Golf courses may water greens and tee boxes as necessary, however, use of spray irrigation may not be done between 10 a.m. and 6 p.m. Encouraged to reduce water use by ten percent.
- Watering of athletic fields (field 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. Encouraged to reduce water use by ten percent.

Stage 3, Water Emergency

Triggering and Terminating Conditions

- Total raw water supply in TRWD water supply reservoirs (Bridgeport, Eagle Mountain, Richland Chambers and Cedar Creek) drops below 45% (55% depleted) of conservation storage capacity.
- Water demand has exceeded or is expected to exceed 90% of maximum sustainable production of delivery capacity for an extended period.
- Water demand for all or part of the TRWD delivery system approaches 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 permitted supply.
- Supply source becomes contaminated or unusable for other regulatory reasons (i.e., invasive species).
- Water supply system is unable to deliver water due to the failure or damage of major water system components.
- The General Manager finds that conditions warrant the declaration of a Stage 3 drought.

Subject to preceding paragraphs regarding the Termination of a Drought Response stage, Stage 3, Water Emergency, will be terminated when the total combined raw water supply in TRWD's West Fork and East Texas reservoirs exceeds 60% of conservation storage or remains at or above 55% for 30 consecutive days, whichever occurs first.

Goal for Use Reduction

The goal for water use reduction under Stage 3, Water Emergency, is to decrease use by 20 percent. If circumstances warrant, the General Manager can set a goal for greater water use reduction.

Actions Available under Stage 3, Water Emergency

The General Manager can order the implementation of any of the actions listed below, as deemed necessary. The General Manager may order the implementation of additional actions not listed below, as deemed necessary. Measures imposing mandatory requirements on customers require notification to TCEQ. TRWD must notify TCEQ within five business days if these measures are implemented.

- Continue actions under Stages 1 and 2.
- Require customers (including indirect customers) to initiate Stage 3 in their drought contingency plans. Indirect customers include any wholesale customer of TRWD's primary wholesale customers to the extent provided for in water sales contracts.

All Water Users

- Prohibit all outdoor watering with hose-end sprinklers and automatic irrigation systems, 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.
- Watering of trees and structural foundations may occur any day and any time by means of handheld hose, soaker hose, or drip irrigation.
- Restrictions do not apply to well water, reclaimed water, or other alternative water sources.
- Irrigation of new landscapes and/or turfgrass installations is prohibited by means of automatic irrigation system or hose-end sprinkler. Variances may be granted for those landscape projects started prior to the initiation of stage 3 drought restrictions. However, variances will not be granted for the irrigation of new landscape and/or turfgrass installations after the initiation of Stage 3 drought restrictions.
- Prohibit washing of paved areas by any means except where a variance is granted to alleviate a possible public health and safety risk. Any pressure/power washing activities must be performed by a professional pressure/power washing service provider utilizing high efficiency equipment and a vacuum recovery system where possible.
- Prohibit hosing of buildings or other structures for purposes other than fire protection or surface preparation prior to painting with high-pressure equipment. Services must be performed by a professional pressure/power

washing service provider utilizing high efficiency equipment and a vacuum recovery system where possible.

- Vehicle washing is restricted to commercial car washes, commercial service stations, or professional washing services only. This includes home and charity car washing. The washing of garbage trucks and vehicles used to transport food and/or other perishables may take place as necessary for health, sanitation, or public safety reasons.
- Prohibit permitting of private pools. Pools already permitted may be completed and filled. Existing private and public pools may add water to maintain pool levels, but may not be drained and refilled.
- Prohibit the operation of ornamental fountains or ponds that use potable water except where necessary to support aquatic life or water quality.

City and Local Governments

- Continue actions under Stages 1 and 2.
- Review conditions or problems that caused Stage 3. Take corrective action.
- Increase frequency of media releases explaining emergency situation and/or water supply conditions.
- Landscape watering at municipal parks, golf courses, and sports fields is prohibited. Variances may be granted by the water provider under special circumstances.

Exceptions:

- Golf course greens and tee boxes may be watered by hand as necessary.
- Variances may be available for watering of athletic fields (field only, does not include surrounding landscaped areas) used for organized sports practice, competition, or exhibition events to protect the health and safety of the players, staff, or officials present for the athletic event. If granted, encouraged to reduce water use by twenty percent.
- Professional and college sports fields (playing fields with a stadium only – not surrounding landscaping) may be watered as necessary to maintain league standards. Encouraged to reduce water use by twenty percent.
- 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 TRWD has imposed a reduction in water available to customers, impose the same percent reduction on wholesale customers.

Commercial or Industrial

- All actions listed above for all water users apply to commercial and industrial users. Landscape watering of municipal parks, golf courses and athletic fields is

prohibited. Variances may be granted by the water provider under special circumstances.

Exceptions:

- Golf course greens and tee boxes may be watered by hand, as necessary.
- Variances may be available for watering of athletic fields (field only, does not include surrounding landscaped areas) used for organized sports practice, competition, or exhibition events to protect the health and safety of the players, staff, or officials present for the athletic event. If granted, encouraged to reduce water use by twenty percent.
- Professional and college sports fields (playing fields with a stadium only – not surrounding landscaping) may be watered as necessary to maintain league standards. Encouraged to reduce water use by twenty percent.
- Require hotels, restaurant, and bars to serve drinking water to patrons on an “on demand” basis.
- Require hotels to implement laundry conservation measures by encouraging patrons to reuse linens and towels.
- Stock at commercial plant nursery may be watered by hand only with a handheld hose, hand-held watering can, soaker hose, or drip irrigation system.
- Commercial and industrial water users may be required to reduce water use by a set percentage as determined by TRWD.

1.6 Procedure for Curtailment of Water Supplies

Any mandatory reduction to deliveries from TRWD to its customers shall be distributed as required by Texas Water Code §11.039, which is attached as Appendix J. In addition, every wholesale water supply contract entered into or renewed after adoption of this plan, including contract extensions, shall include a provision that water will be distributed in accordance with the Texas Water Code §11.039 in case of a water shortage resulting from drought.

To the extent not prevented by enforcement of provisions in TRWD’s wholesale contracts in effect before November 28, 1999, TRWD will implement pro rata curtailment of water deliveries pursuant to Texas Water Code §11.039.

1.7 Procedure for Granting Variances to the Plan

The General Manager may grant temporary variances for existing water uses otherwise prohibited under this drought contingency and emergency water management plan to a customer 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 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 General Manager. All petitions for variances should be in writing and should include the following information:

- Name and address of 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
- Alternative measures that will be taken to reduce water use
- Other pertinent information.

1.8 Procedure for Enforcing Mandatory Water Restrictions

TRWD customers (direct and indirect) shall provide TRWD with an order, ordinance, or resolution to demonstrate adequate enforcement provisions for the customer's own drought contingency plan.

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

- On the first violation, the customer will be given a written warning that they have violated one or more of the mandatory water use restrictions.
- After a second violation, TRWD will require the customer to implement a more comprehensive public education and outreach program in a manner that increases the public's awareness about mandatory water use restrictions and the current drought status. The customer will also be required to submit documentation to TRWD of the steps it has taken to ensure compliance with the drought contingency and emergency water management plan within 30 days after receiving the second notice of violation.
- TRWD may petition the Texas Commission on Environmental Quality to initiate formal enforcement action against customers that repeatedly fail to comply with the mandatory water use restrictions implemented during any stage of the drought contingency and emergency water management plan.

1.9 Coordination with the Regional Water Planning Groups

Appendix I includes a copy of a letter sent to the Chair of the Region C water planning group with this water conservation and drought contingency plan.

1.10 Review and Update of Drought Contingency Plan

As required by TCEQ rules, TRWD reviewed this drought contingency and emergency water management plan in 2024 and will do so every five years thereafter. The plan will also be updated as appropriate based on new or updated information.

1.11 Drought Contingency Plan Definitions

Term	Definition
Aesthetic Water Use	Water use for ornamental or decorative features, such as fountains, reflecting pools, and water gardens.
Alternative Water Source	Water produced by a source other than a water treatment plant and is not considered potable. These sources can include, but are not limited to: reclaimed/recycled water, collected rain water, collected grey water, private well water.
Athletic field	A sports playing field, the essential feature of which is turf grass, used primarily for organized sports for schools, professional sports, or sanctioned league play.
Automatic Irrigation System	A site specific system of delivering water generally for landscaping via a system of pipes or other conduits installed below ground that automatically cycles water use through water emitters to a preset program, whether on a designated timer or through manual operation.
Aquatic Life	A vertebrate organism dependent upon an aquatic environment to sustain its life.
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 other or future uses.

Term	Definition
Customer	Any person, company, or organization using water supplied by TRWD or through an entity supplied by TRWD.
Drip irrigation	An irrigation system (drip, porous pipe, etc.) that applies water at a predetermined controlled low-flow levels directly to the roots of the plant
Drought Contingency Plan	A strategy or combination of strategies for temporary supply management and demand management responses to temporary or potentially recurring water supply shortages and other water supply emergencies.
Fountain	An artificially created jet, stream or flow of water, a structure, often decorative, from which a jet, stream or flow of water issues.
Golf Course	An irrigated and landscaped playing area made up of greens, tees, fairways, roughs and related areas used for the playing of golf.
Hand-held hose	A hose physically held by one person, fitted with a manual or automatic shutoff nozzle.
Hose-end Sprinkler	A device through which water flows from a hose to a sprinkler to water any lawn or landscape.
Hosing	To spray, water, or wash with a water hose.
Irrigation system	A system of fixed pipes and water emitters that apply water to landscape plants or turfgrass, including, but not limited to: in-ground and permanent irrigation systems.
Lake, lagoon, or pond	Artificially created body of fresh or salt water.

Term	Definition
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, right-of-ways, medians and entry ways.
“New landscape”	<p>A landscape:</p> <ul style="list-style-type: none"> a. Installed during construction of a new house, multi-family dwelling, or commercial building; b. Installed as part of a governmental entity’s capital improvement project; or <p>Alters more than one-third the area of an existing landscape.</p>
Non-essential water use	<p>Water uses that are not required for the protection of public health, safety and welfare, such as:</p> <ul style="list-style-type: none"> a. Irrigating landscape areas, including parks, athletic fields, and golf courses, except as otherwise provided under this plan; b. Washing any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas; except to alleviate a public health and safety issue; c. Washing any automobile, motorbike, boat (and/or trailer), airplane, or other vehicle except where required by law for safety and sanitary purposes. d. Washing buildings or structures for purposes other than immediate fire protection, or other uses provided under this plan; e. Filling, refilling, or adding to any swimming pools or Jacuzzi-type pools, except to maintain safe operating levels; f. Filling or operation of a fountain or pond for aesthetic or scenic purposes except when necessary to support aquatic life; g. Failure to repair a controllable leak within a reasonable time period after being directed to do so by formal notice; and h. Drawing from hydrants for construction purposes or any other purpose other than firefighting or protection of public drinking water supplies.

Term	Definition
Park	A non-residential or multifamily tract of land, other than a golf course, maintained by a city, private organization, or individual, as a place of beauty or public recreation and available for use to the general public.
Power/Pressure washer	A machine that uses water or a water-based product applied at high pressure to clean impervious surfaces.
Power/Pressure washer (High-Efficiency)	A machine that uses water or a water-based product applied at 1500 pounds per square inch (PSI) or greater.
Reclaimed Water	Municipal wastewater effluent that is given additional treatment and distributed for reuse in certain applications. Also referred to as recycled water.
Soaker hose	A flexible hose that is designed to slowly emit water across the entire length and connect directly to a flexible hose or spigot. Does not include hose that by design or use sends a fine spray in the air. It is not considered drip irrigation.
Structural Foundation	The lowest and supporting layer of a structure.
Swimming pool	Any structure, basin, chamber, or tank including hot tubs, containing an artificial body of water for swimming, diving, or recreational bathing, and having a depth of two (2) feet or more at any point.
Well Water	Water that has been, or is, obtained from the ground by digging, boring, or drilling to access an underground aquifer.

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APPENDIX A

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES
ON DROUGHT CONTINGENCY PLANS FOR MUNICIPAL AND
WHOLESALE WATER PROVIDERS**

Texas Administrative Code

<u>TITLE 30</u>	ENVIRONMENTAL QUALITY
<u>PART 1</u>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
<u>CHAPTER 288</u>	WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS
<u>SUBCHAPTER B</u>	DROUGHT CONTINGENCY PLANS
RULE §288.22	Drought Contingency Plans for Wholesale Water Suppliers

- (a) A drought contingency plan for a wholesale water supplier must include the following minimum elements.
- (1) Preparation of the plan shall include provisions to actively inform the public and to affirmatively provide opportunity for user input in the preparation of the plan and for informing wholesale customers about the plan. 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.
 - (2) The drought contingency plan must document coordination with the regional water planning groups for the service area of the wholesale public water supplier to insure consistency with the appropriate approved regional water plans.
 - (3) 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.
 - (4) The drought contingency plan must include a minimum of three drought or emergency response stages providing for the implementation of measures in response to water supply conditions during a repeat of the drought-of-record.
 - (5) The drought contingency plan must include the procedures to be followed for the initiation or termination of drought response stages, including procedures for notification of wholesale customers regarding the initiation or termination of drought response stages.
 - (6) 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 paragraph are not enforceable.
 - (7) 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:
 - (A) pro rata curtailment of water deliveries to or diversions by wholesale water customers as provided in Texas Water Code, §11.039; and

- (B) utilization of alternative water sources 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.).
- (8) The drought contingency plan must include a provision in every wholesale water contract entered into or renewed after adoption of the plan, including contract extensions, that in case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code, §11.039.
- (9) The drought contingency plan must include procedures for granting variances to the plan.
- (10) The drought contingency plan must include procedures for the enforcement of any mandatory water use restrictions including specification of penalties (e.g., liquidated damages, water rate surcharges, discontinuation of service) for violations of such restrictions.
- (b) The wholesale public 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 wholesale 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 adoption or revision of the regional water plan.

Source Note: The provisions of this §288.22 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

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APPENDIX B

**TARRANT REGIONAL WATER DISTRICT BOARD RESOLUTION
ADOPTING THE WATER CONSERVATION AND DROUGHT
CONTINGENCY AND EMERGENCY WATER MANAGEMENT
PLAN**

Tarrant Regional Water District Board Resolution Adopting the Water Conservation and Drought Contingency and Water Management Plan

**RESOLUTION
OF
THE BOARD OF DIRECTORS OF
TARRANT REGIONAL WATER DISTRICT
ADOPTING THE WATER CONSERVATION AND
DROUGHT CONTINGENCY AND EMERGENCY WATER MANAGEMENT PLAN**

WHEREAS, Tarrant Regional Water District, a Water Control and Improvement District (the “District”), as a wholesale water supplier, is required by the Texas Commission on Environmental Quality to develop (a) a water conservation plan pursuant to Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.5 of the Texas Administrative Code and (b) a drought contingency plan pursuant to Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.22 of the Texas Administrative Code; and

WHEREAS, the District recognizes the importance of a long-term approach to conserving water supplies by reducing the volume of water withdrawn from its reservoirs, reducing the loss or waste of water, improving water use efficiency, and increasing the recycling and reuse of water; and

WHEREAS, the plan provides significant benefits to the District, its customers, and the public they serve through the implementation of year-round water saving strategies to increase District reservoir storage volumes during wet or dry weather conditions; and

WHEREAS, as authorized under law, and in the best interests of its customers, the District deems it expedient and necessary to establish certain rules and policies for the orderly and efficient management of limited water supplies during drought and other water supply emergencies.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE TARRANT REGIONAL WATER DISTRICT that the Water Conservation and Drought Contingency and Emergency Water Management Plan attached hereto as Exhibit A is adopted as the controlling policy of the District.

Passed and approved this 16th day of April, 2024.

By: _____

Leah M. King
President, Board of Directors

ATTEST:

By: _____

Mary Kelleher
Secretary, Board of Directors

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APPENDIX C
LETTER TO REGION C
WATER PLANNING GROUP

May 1, 2024

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

Dear Mr. Ward:

Enclosed please find a copy of the recently adopted water conservation and drought contingency and emergency water management plan for the Tarrant Regional Water District. 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 Board of the Tarrant Regional Water District adopted the attached plan on April 16, 2024.

Sincerely,

Dan Buhman
General Manager
Tarrant Regional Water District

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APPENDIX D
TEXAS WATER CODE
SECTION 11.039

Texas Water Code Section 11.039

§ 11.039. Distribution of Water During Shortage

(a) If a shortage of water in a water supply not covered by a water conservation plan prepared in compliance with Texas Natural Resource Conservation Commission or Texas Water Development Board rules results from drought, accident, or other cause, the water to be distributed shall be divided among all customers pro rata, according to the amount each may be entitled to, so that preference is given to no one and everyone suffers alike.

(b) If a shortage of water in a water supply covered by a water conservation plan prepared in compliance with Texas Natural Resource Conservation Commission or Texas Water Development Board rules results from drought, accident, or other cause, the person, association of persons, or corporation owning or controlling the water shall divide the water to be distributed among all customers pro rata, according to:

(1) the amount of water to which each customer may be entitled; or

(2) the amount of water to which each customer may be entitled, less the amount of water the customer would have saved if the customer had operated its water system in compliance with the water conservation plan.

(c) Nothing in Subsection (a) or (b) precludes the person, association of persons, or corporation owning or controlling the water from supplying water to a person who has a prior vested right to the water under the laws of this state.

Amended by Acts 1977, 65th Leg., p. 2207, ch. 870, § 1, eff. Sept. 1, 1977.

Amended by Acts 2001, 77th Leg., ch. 1126, § 1, eff. June 15, 2001.

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