

**RESOLUTION OF THE BOARD OF DIRECTORS
OF TARRANT REGIONAL WATER DISTRICT
APPROVING AND ADOPTING LAKE RESIDENT WATER CONSERVATION AND
DROUGHT MANAGEMENT PLAN**

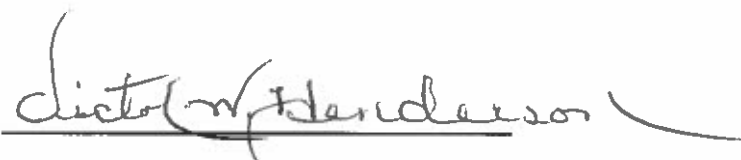
WHEREAS, Tarrant Regional Water District, a Water Control and Improvement District (the "District"), as a wholesale water supplier, is required by the Texas Commission on Environmental Quality to develop (a) a water conservation plan pursuant to Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.5 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District recognizes the importance of a long-term approach to conserving water supplies by reducing the volume of water withdrawn from its reservoirs, reducing the loss or waste of water, improving water use efficiency, and increasing the recycling and reuse of water; and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.

NOW, THEREFORE, be it resolved by the Board of Directors of the District that the Lake Resident Water Conservation and Drought Management Plan attached hereto as Exhibit A is adopted as a policy of the District.

TARRANT REGIONAL WATER DISTRICT, a
Water Control and Improvement District

By: 

Victor W. Henderson
President, Board of Directors

ATTEST:



Jack R. Stevens
Secretary, Board of Directors

**TARRANT REGIONAL
WATER DISTRICT
LAKE RESIDENT
WATER
CONSERVATION AND
DROUGHT
MANAGEMENT PLAN**

NOVEMBER 2011

Tarrant Regional Water District
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Fort Worth, TX 76102
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TARRANT REGIONAL WATER DISTRICT

Lake Resident Water Conservation and Drought Management Plan

NOVEMBER 2011

1. INTRODUCTION AND OBJECTIVES

The water supplies we depend on are not an endless resource. The Tarrant Regional Water District relies on surface water supplies in four major reservoirs to meet the demands of more than 1.8 million people across an 11-county service area. Those reservoirs include: Lake Bridgeport, Eagle Mountain Lake on the West Fork of the Trinity River, and Cedar Creek and Richland-Chambers Reservoirs in East Texas.

Surface water supplies are susceptible to drought conditions, which are a part of life here in North Texas. The lack of rainfall and runoff we experience during droughts has a direct impact on our water resources. Without consistent rainfall, our reservoirs are depleted faster than they are replenished. In addition, the Water District is challenged with meeting the demands of a population that's expected to double in the next 50 years. As you can imagine, that means the demand for water will certainly rise. That's why we have to be smart when it comes to managing our water resources. It is important that we use the water we already have more efficiently to maximize our supplies. In fact, the 2012 State Water Plan estimates that 11 percent of all future supplies in our region will be the direct result of water conservation savings. By changing the way we use water to reduce water waste and non-essential uses we can stretch our existing supplies to help us:

- delay the need to develop expensive new supplies,
- minimize the environmental impacts associated with developing new water resources, and
- postpone the high cost of building the pipelines and dams necessary to capture and transport additional water to our homes and businesses.

The TRWD Lake Resident Water Conservation and Drought Management Plan is an extension of the Water District's current Water Conservation and Drought Contingency Plan adopted by the Board in April, 2009. The latter plan is directed at customer cities – direct and indirect municipal customers, contract irrigation customers, such as golf courses and schools, and a small number of industries. This new plan is specifically designed for lakeside residents that withdraw water from TRWD reservoirs for irrigation purposes. It is designed to ensure the rules and regulations adopted by communities served by the Water District are applied equitably to all customers - municipal, domestic, commercial, industrial, and residential irrigation.

The TRWD Lake Resident Water Conservation and Drought Management Plan is designed to effect long-term water savings through the water conservation measures, and relief of short-term water supply shortages due to weather or supply conditions. The objectives of this water management plan are as follows:

- To reduce water consumption from the levels that would prevail without conservation efforts.
- To reduce the loss and waste of water.
- To improve efficiency in the use of water.
- To extend the life of current water supplies, especially during periods of drought.

2. IMPROVEMENT PERMIT GUIDELINES

The following guidelines apply to all raw water usage drawn from any water district reservoir for irrigation purposes of lakeside properties.

- (1) Use of raw water from District Lakes for irrigation purposes shall be limited to irrigation of residential shoreline property that is contiguous to the reservoir.
- (2) Water transmission lines will not be allowed to cross any public thoroughfare.
- (3) The electrical services shall be installed in accordance with the National Electric Code as amended and revised. The District performs cursory electrical inspections for general compliance only. The homeowner is advised to have a licensed electrician, electrical inspector, or other professional expertise in electrical installations to inspect all electrical components to ensure that the installation meets all requirements specified in the National Electric Code.
- (4) A permit fee of \$100.00 will be assessed.
- (5) Submersible pumps shall not be placed in District Reservoirs.
- (6) The intake for above ground pumps will be located and anchored in a manner so as not to be a hazard to navigation or recreation.

3. WATER CONSERVATION: LAWN AND LANDSCAPE IRRIGATION RESTRICTIONS

The following restrictions are designed to limit waste, discourage excessive use, and conserve water supplies.

(1) Except for hand watering, use of soaker hoses, and/or a drip irrigation system, a person commits an offense if that person irrigates, waters, or causes or permits irrigation or watering of any lawn or landscape located on premises owned, leased or managed by that person between the hours of 10:00 a.m. and 6:00 p.m.

(2) A person commits an offense if he knowingly and or willingly irrigates, waters, or causes or permits the irrigation or watering of a lawn or landscape located on premises owned, leased, or managed by that person in a manner that causes:

- (a) irrigation water to fall upon impervious surface areas instead of a lawn or landscape, such that ponding occurs or a constant stream of water overflows from the lawn or landscape onto a street or other drainage area; or
- (b) an irrigation system or other lawn or landscape device to operate during any form of precipitation or at temperatures below freezing (32°F).

(3) A person commits an offense if, on premises owned, leased, or managed by that person, a person knowingly and willingly operates a lawn or landscape irrigation system or device that:

- (a) has any broken or missing sprinkler head; or
- (b) has not been properly maintained in a manner that prevents the waste of water.

Exceptions:

- o If new hydromulch, grass sod, or grass seed is installed for the purpose of establishing a new lawn, there are no watering restrictions for a period of 30 consecutive days while it is being established. Any irrigation taking place after the 30th consecutive day in violation of this section shall be subject to administrative fees and / or revocation of the irrigation permit. (This exception does not include over seeding with rye or other cool season grasses since turf already exists.)
- o For the maintenance, repair, or testing of an irrigation system

4. DROUGHT MANAGEMENT PLAN

In addition to all matters stated herein above, as a condition for acquiring an irrigation permit from the Water District, all water users drawing raw water from any District Reservoir must abide by the mandatory watering restrictions implemented during drought stages as outlined in the TRWD Water Conservation and Drought Contingency Plan, as amended.

Initiation of drought stages will be announced through a variety of outlets including, but not limited to: local media, postings on the TRWD website, and at District office facilities.

Triggering conditions are based on any one or more of the following conditions:

- Total combined raw water supply in TRWD western and eastern division reservoirs drops below a certain storage capacity:
 - Stage 1, Water Watch – 75% (or 25% depleted)
 - Stage 2, Water Warning – 60% (or 40% depleted)
 - Stage 3, Water Emergency – 45% (or 55% depleted)
- Water demand for all or part of the delivery system approaches delivery capacity.
- Water demand is projected to reach the limit of permitted supply.
- Supply source becomes contaminated.
- Water supply system is unable to deliver water due to failure or damage of major water system components.
- The General Manager, with concurrence of the TRWD Board of Directors, finds that conditions warrant the declaration of a drought stage.

Termination of drought stages will take place when the circumstances that caused the initiation of a drought stage no longer prevail, and / or at the discretion of the General Manager. The General Manager may decide 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, climate conditions, or the anticipation of potential change in conditions that warrant the continuation of a drought stage.

Each drought stage comes with a distinct set of measures or actions that lakeside residents will be required to take in order to conserve water supplies during drought and / or emergency water supply situations. The following is a list of mandatory measures from the latest version of the TRWD Water Conservation and Drought Contingency Plan (2009).

Below are the mandatory water reduction stages designed to reduce water use based on the severity of climatic water supply conditions. The measures found in each stage apply to all TRWD water customers, and are also found within the current TRWD Water Conservation and Drought Contingency Plan.

Stage 1, Water Watch (Mandatory Restrictions)

- The following non-essential water uses are prohibited:
 - hosing of paved areas, such as sidewalks, driveways, parking lots, tennis courts, or other impervious surfaces, except to alleviate an immediate health or safety hazard.
 - hosing of buildings or other structures for purposes other than fire protection or surface preparation prior to painting.
 - using water in such a manner as to allow runoff or other waste, including:
 - 1) failure to repair a controllable leak, including, but not limited to, a broken sprinkler head, a leaking valve, leaking or broken pipes, or a leaking faucet;
 - 2) 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; or during irrigation, allowing water to (a) 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.
- Outdoor watering with hose-end sprinklers or irrigation systems between 10 a.m. and 6 p.m. is prohibited.
- Landscape watering with hose-end sprinklers or irrigation systems at each service address is limited to no more than twice per week.

Exceptions:

- Foundations may be watered up to two hours on any day by handheld hose; or using a soaker hose or drip system placed within 24-inches of the foundation that does not produce a spray of water above the ground.
- Newly installed shrubs (first year) and trees may be watered up to two hours on any day by handheld hose, drip irrigation, or soaker hose. Tree watering is limited to an area not to exceed the drip line of a tree.
- Establishing new turf is discouraged. If new 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 exception does not include over seeding with rye since turf already exists.)
- In the absence of a watering schedule set forth by local community governments, the following day of week watering schedule will apply during Stage 1 at each service address drawing raw water from any District Reservoir.

- All multi-family and or non-residential locations (apartment complexes, businesses, industries, parks, medians, and HOA's) may water on Tuesdays and Fridays.
- Residential addresses ending in an even number (0, 2, 4, 6, 8) may water on Wednesdays and Saturdays.
- Residential addresses ending in an odd number (1, 3, 5, 7, 9) may water on Thursdays and Sundays.
- Watering is not allowed on Mondays.
- 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 shutoff nozzle.
- All users are encouraged to reduce frequency of draining and refilling swimming pools.

Stage 2, Water Warning (Mandatory Restrictions)

- All measures outlined in stage 1 remain in effect.
- Limit landscape watering with hose-end sprinklers or irrigation systems at each service address to once every seven days. Exact outdoor watering schedule will be determined by the General Manager.

Exceptions:

- Foundations may be watered up to two hours on any day by handheld hose; or using a soaker hose or drip system placed within 24 inches of the foundation that does not produce a spray of water above the ground.
- Newly installed shrubs (first year), and trees may be watered up to two hours on any day by handheld hose, drip irrigation, or a soaker hose. Tree watering is limited to an area not to exceed the drip line of a tree.
- All users are discouraged from establishing new landscaping and turf. If new 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 exception does not include over seeding with rye since turf already exists.)
- The operation of ornamental fountains or ponds that use potable water is prohibited, except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.
- Filling of swimming pools is prohibited, except to maintenance level for safe operation.

Stage 3, Water Emergency (Mandatory Restrictions)

- All measures outlined in the previous drought stage 2 remain in effect.
- All landscape watering is prohibited.

Exceptions:

- Foundations may be watered up to two hours on any day by handheld hose; or using a soaker hose or drip system placed within 24 inches of the foundation that does not produce a spray of water above the ground.
- Establishment of new landscaping is prohibited
- Vehicle washing restricted to commercial car wash or commercial service station 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.
- Operation of ornamental fountains or ponds that use potable water is prohibited, except where necessary to support aquatic life.
- Draining, filling, or refilling of swimming pools, wading pools and Jacuzzi type pools is prohibited. Existing private and public pools may add water to maintain pool levels.

5. ENFORCEMENT OF MANDATORY WATERING RESTRICTIONS

Failure of a permittee, including owners, leasors, or managers of any lakeside premises, to comply with the terms and conditions of the permit as set forth in the TRWD Lake Resident Water Conservation and Drought Management Plan constitutes a breach of License Regulations and may result in the revocation of the permit. Additionally, failure of the permittee to abide by any of the rules and regulations contained herein may result in administration of other penalties, including monetary penalties, as set forth in the Article XVII of the General Ordinance.