

TRINITY GLEN ROSE GROUNDWATER CONSERVATION DISTRICT

DROUGHT AND CONSERVATION MANAGEMENT PLAN

ADOPTED OCTOBER 17, 2024
EFFECTIVE DATE DECEMBER 14, 2023

I. Purpose

The Trinity Glen Rose Groundwater Conservation District (the District) adopts this plan for the purpose to conserve, preserve, protect, and recharge the groundwater resources of the District, and to prevent waste and degradation of quality of those groundwater resources.

II. Applicability

Provisions of this plan apply to all District wells and all persons or organizations, public or private, owning or operating wells within the District, regardless of purpose of use, size, capacity, date drilled, ownership, or the exempt or non-exempt status of a well.

III. Enforcement

This Drought and Conservation Management Plan relies on all groundwater users and provides best management practices of conserving water resources. The reduction measures outlined in this plan are to achieve a desired level of conservation and reduce impacts to the Trinity Aquifer for future use. **This section does not exclude the District from exercising authority of its civil penalties in the District's Rules and § 36.102 of the Texas Water Code regarding wasteful use of water and permitted well requirements.**

IV. Public Water Supply Entities

The District recognizes that Public Water Supply Entities develop and utilize drought contingency plans that accomplish groundwater resource conservation. The District will support and provide assistance when requested from the Public Water Supply Entity, using groundwater, to implement their plans and use their discretion as to how much desired reduction is to be accomplished during a drought. The District asks to be notified by each Public Water Supply Entity in the event that a drought stage has been triggered or canceled.

V. Initiation and Determination of Drought Stages

The various drought stages will be initiated by the District's Board of Directors (the Board) or the Board's designee, utilizing but not limited to any of the following.

- 1) The Palmer Hydrological Drought Index (PHDI). (see following information on PHDI).
- 2) The District's various groundwater monitor wells may be utilized to determine aquifer level fluctuations, increased water levels and declines.
- 3) Public Water Systems declaration of drought stages.

The drought stage in effect may be reduced or terminated when the PHDI is greater than the trigger conditions of the drought stage in effect. Public notification of the initiation or termination of drought stages may be provided by means of press release, website updates, articles, public meetings and mailings.

The PHDI is developed by NOAA (National Oceanic and Atmospheric Administration) and available at: <https://www.ncei.noaa.gov/access/monitoring/historical-palmers/>

The PHDI is a long-range, cumulative drought index that measures the long-term hydrological drought conditions based on the local climate, current and past weather trends, and is an accurate representation

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of the groundwater and other hydrological conditions. The PHDI reflects impacts of drought for hydrologic parameters (groundwater levels, reservoir levels, streamflow, soil moisture, etc.). The PHDI responds slowly to changing conditions and is used to assess long-term cumulative moisture supply. PHDI values are calculated with an algorithm that incorporates many hydrological values and will generally range from -6 to +6, where negative values denote dry spells, and positive values denote wet spells.

The drought stages of this plan will coincide with the various stages of drought in the PHDI which are as follows:

Mid-Range or Near Normal PHDI from -1.99 to +1.99

Moderate Drought PHDI from -2.00 to -2.99

Severe Drought PHDI from -3.00 to -3.99

Extreme Drought PHDI from -4.00 and below

VI. Drought Stages

A. Year-Round Conservation

PHDI is above -1.99 (considered Mid-Range or Near Normal to Extremely Moist)

This stage is what most people would consider normal seasonal climate conditions for the area. Year-round watering rules are in effect when no drought conditions are active.

The District strongly encourages homeowners, home owner associations, homebuilders and/or developers, exempt or non-exempt well users to incorporate these conservation practices. Specifically, the incorporation of the following best management practices:

1. Rain Sensors - rain sensors should be installed and maintained on all irrigation systems equipped with automatic irrigation controls and inspected annually.
2. Xeriscape Option - Homebuilders and/or developers subdividing lots and/or constructing new single family residential homes should offer a xeriscape option in any series of landscaping options offered to prospective home buyers.
3. Rainwater Harvesting Systems - Homebuilders, developers, Homeowner Associations, and homeowners should consider the installation of rain harvesting systems. Rain harvesting systems can reduce reliance on common water supplies with a low-cost investment.
4. Improve the quality of home irrigation systems - Homeowners, Homeowner Associations, homebuilders, and developers should consider installing or replacing irrigation systems with an efficient system. This can lessen the strain on groundwater resources.

TRINITY GLEN ROSE GROUNDWATER CONSERVATION DISTRICT

DROUGHT AND CONSERVATION MANAGEMENT PLAN

ADOPTED OCTOBER 17, 2024
EFFECTIVE DATE DECEMBER 14, 2023

5. Alternate sources of water usage is highly encouraged such as rain water harvesting, reclaimed condensate, reclaimed grey water, recycled water that has no adverse effects to public health and safety, and other non-groundwater sources.
6. **Water Waste is prohibited at all times.** Allowing groundwater to run off into a ditch, or drain, failing to repair a controllable leak, including lawn watering overspray and runoff is considered waste.
7. Limit aesthetic water use and take inventory of non-essential water use.
8. Using groundwater for washing impervious cover such as parking lots, driveways, streets or sidewalks is discouraged and should be done responsibly to avoid runoff/waste.
9. The use of commercial vehicle wash facilities that recycle water is allowed any day.
10. Watering with an irrigation system may occur before 10 a.m. and after 9 p.m.
11. Watering with a hand-held hose may occur any time.

B. Stage 1- Moderate Drought

Triggers Considered:

1. **PHDI from -2.00 to -2.99; and/or**
2. **the majority of public water suppliers within the District have initiated stage 1 of their drought plans;**

Conservation Measures

All previous conservation measures remain in effect, or as modified in Stage 1 measures listed below.

1. Water use reduction goal of 5%.
2. Take inventory and reduce water consumption by any means available.
3. Watering with a spray irrigation system, sprinkler, or soaker hose is allowed only once a week before 10 a.m. or after 9 p.m. on your designated watering day, as determined by the last number of your street address.

Last Digit of Address	Watering Day
0 or 1	Monday
2 or 3	Tuesday
4 or 5	Wednesday
6 or 7	Thursday
8 or 9	Friday
No watering on weekends	

Areas without a street address, such as medians and neighborhood entryways, water on Wednesday.

TRINITY GLEN ROSE GROUNDWATER CONSERVATION DISTRICT

DROUGHT AND CONSERVATION MANAGEMENT PLAN

ADOPTED OCTOBER 17, 2024
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4. Watering with drip irrigation systems may run up to three days a week on Monday, Wednesday, and Friday, before 10 a.m. or after 9 p.m.
5. Watering with a hand-held hose may occur any time and any day.
6. Watering with a sprinkler is not allowed on the weekends.
7. Swimming pools should have a minimum of twenty-five percent (25%) of the surface area covered with evaporation screens when not in use. Inflatable pool toys or floating decorations may be used.
8. Aesthetic fountains should not be utilized, unless an alternative source of water other than groundwater is used.
9. Washing impervious cover such as parking lots, driveways, streets, or sidewalks is prohibited, unless health and safety is at risk.
10. Residential car washing is allowed once per week on Saturday or Sunday as long as there is no water waste.
11. Landscape areas on golf courses not directly “in play” are to follow one-day-per-week watering based on address.

C. Stage 2 - Severe Drought

Triggers considered:

1. **PHDI from -3.00 to -3.99**
2. **the majority of public water suppliers within the District have initiated stage 2 of their drought plans; and/or**
3. **aquifer level declines have been continuously observed with minimal recharge events.**

Conservation Measures

All previous conservation measures remain in effect, or as modified in Stage 2 measures listed below.

1. Water use reduction goal of 10%.
2. Watering with a hand-held hose may occur any time and any day.
3. Watering with a spray irrigation system, sprinkler, or soaker hose is allowed to only once a week, from 5-10 a.m. and 9-12 p.m. on your designated watering day as determined by your address in Stage 1.
4. Watering with drip irrigation may run up to two days a week on Monday and Friday, before 10 a.m. or after 9 p.m.

TRINITY GLEN ROSE GROUNDWATER CONSERVATION DISTRICT

DROUGHT AND CONSERVATION MANAGEMENT PLAN

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D. Stage 3 - Extreme Drought

Triggers considered:

1. **PHDI from -4.00 to -4.99**
2. **the majority of public water suppliers within the District have initiated Stage 3 of their drought plans; and/or**
3. **aquifer level declines have been continuously observed with minimal recharge events.**

Conservation Measures

All previous conservation measures remain in effect, or as modified in Stage 3 measures listed below.

1. Water use reduction goal of 15%.
2. Watering with a hand-held hose may occur any time and any day.
3. Watering with a spray irrigation system, sprinkler, or soaker hose is allowed **once every other week**, from 5-10 a.m. and 9-12 p.m. on your designated watering day as determined by your address in Stage 1.
4. Watering with drip irrigation may run one day a week, on Friday, from 5-10 a.m. or 9-12 p.m.
5. Residential car washing should occur only once a week, during drought on Saturday or Sunday as long as there is no water waste.
6. Installing newly planted landscapes is highly discouraged.
7. Alternate sources of water usage are highly encouraged such as rainwater harvesting, reclaimed condensate, reclaimed grey water, recycled water that has no adverse effects to public health and safety, and other non-groundwater sources.