DROUGHT STAGE 4 – EXTREME DROUGHT IN EFFECT

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According to the Texas Water Development Board, which is the state's water science & planning agency, Drought Conditions have continued to improve in parts of the State but they remain firmly entrenched in the Central and West Texas areas. This includes the Texas Hill Country, which is the only area in Texas that is still continuing to experience Extreme (D3) and Exceptional (D4) Drought conditions. These conditions are corroborated by the reduction of the water level in our aquifers, which have received minimal recovery during these past fall, winter, and spring months. Last year, in July of 2022, the average water level in the Middle Trinity Aquifer was at 1402.0 feet above Mean Sea Level. As of July 2023, today, the average water level in the Middle Trinity Aquifer is at 1397.8 feet above Mean Sea Level. This is four feet lower than during the peak of last year's drought of record. This average is from four very specific HGCD monitor wells located in various areas of Kerr County. The water level in many of the other HGCD monitor wells are down 10 – 47 feet. Currently, the creeks in Kerr County are dry and not moving, with the exception of Johnson Creek. Multiple independent public water systems in Kerr County are experiencing pumping issues due to the declining water levels and are self-escalating to Stage 4 water restrictions.

The weather pattern in the Pacific Ocean has shifted from La Niña, which generates the long-term droughts, to El Niño, which generates excess rain for this area of Texas. However, this El Niño cycle is newly formed and subsequently weak, meaning that it will take time for it to strengthen and impact our weather. Therefore, the long-term weather forecasts are predicting that this El Niño cycle will continue to strengthen through the fall and ultimately peak this winter with moderate-to-strong intensity. In summary, this means that the weather conditions should eventually bring some rain, but it will not be in the immediate future. General information about the El Niño & La Niña weather patterns can be found at https://www.climate.gov/enso. Regular ENSO Climate Prediction updates can be viewed on this same webpage by clicking on the Latest Official ENSO Update link.

While a large area of the State may be experiencing drought relief, it is still an obvious and real condition for us in the Texas Hill Country. Kendall County is currently in Drought Stage 4. Bandera County is in Drought Stage 5. Gillespie County has declared an Ellenburger Aquifer Critical Groundwater Depletion Area in part of the county. Due to several local factors, the Headwaters Groundwater Conservation District is escalating to Drought Stage 4: Extreme Drought for Kerr County, effective immediately. These factors include the extended lack of rain, the ongoing heat wave, the declining water levels in our aquifers, the declining water level in the Guadalupe River, and the long-term weather forecasts through fall of 2023 and winter of 2024. Therefore, it is important to conserve all our water

resources over the next several months. This Drought Stage 4 will apply to all permitted well owners and public water systems in Kerr County, to include Hunt, Ingram, and the City of Kerrville. By State Law, exempt well owners are not required to comply with drought restrictions. However, many exempt and permitted well owners across Kerr County are currently experience pump related issues due to the decreasing water levels in the aquifers. Conserving water usage during this drought may prevent expensive pump repairs or prevent well damage that could render the well permanently inoperable.

Kerr County is part of the Hill Country Priority Groundwater Management Area (PGMA). A PGMA is an area that the State has identified as currently experiencing or expected to experience critical groundwater issues in the future. Within the Hill Country Priority Groundwater Management Area, pumping groundwater into landscape or vanity ponds is a prohibited use for all exempt wells. Therefore, in Kerr County, landscape and vanity ponds are required to be permitted and regulated by Headwaters Groundwater Conservation District. Additionally, HGCD's Drought Stage 3 and Drought Stage 4 restrictions prohibit the pumping of groundwater from permitted wells into ponds, lakes or reservoirs for the purpose of enhancing the appearance of the landscape during these particular drought stages. Therefore, at this time, pumping groundwater into any pond for the sole purpose of appearance or landscape enhancement is a prohibited use for all groundwater wells in Kerr County. Pumping into a pond for livestock use, such as cattle, horses, mules, hogs, sheep and goats, is not prohibited. However, we encourage all livestock owners to use more water conserving options such as self-regulating stock tanks or troughs. These options prevent waste due to the fact that they prevent ground re-absorption.

While we anxiously wait for these pending weather changes, Headwaters GCD is asking all Kerr County residents to continue keeping water conservation in mind over these next few months. Additionally, Headwaters GCD is reminding all public water system customers to continue to follow the conservation guidelines that have been communicated by their public water system operators, to include any directives regarding lawn and landscape watering, which constitutes approximately 40% of all household water usage.

Some household water conservation tips include:

- Only running full loads of laundry.
- Only running full loads of dishes in the dishwasher, or use "top rack only" option, if available.
- Take short showers instead of baths.
- Fix leaky pipes, faucets, and toilets.
- Install water efficient showerheads and aerators.
- Turning the water off and on as needed, while brushing teeth, shaving, washing face and hands.
- Collect unused running water into recycled plastic bottles and jugs, to be used for drinking water or for indoor/outdoor plant watering.
- Consider installing an instant water heater under your kitchen and/or bathroom sinks so that hot water is immediately available.

- Cover pools and spas. This can save the equivalent of your pool volume each year!
- Don't waste water by cleaning patios or sidewalks with it; use a broom instead.

Some lawn and landscape water conservation tips include:

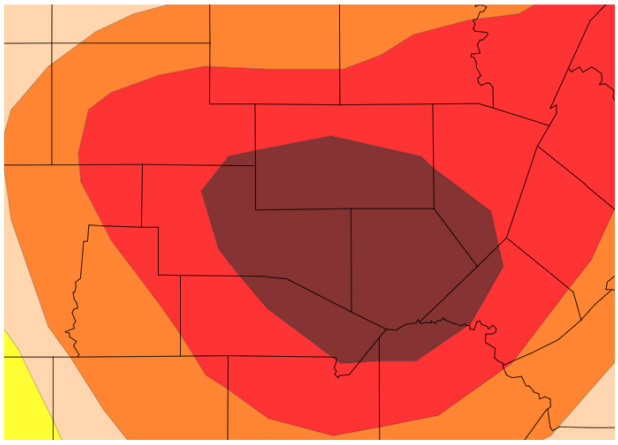
- One inch of water per week in the summer will keep most Texas grasses healthy. To determine how long you should run your sprinklers, place straight-edged cans at different distances away from the sprinkler and time how long it takes to fill an average of 1 inch of water in each can.
- Don't abuse the benefits of an automatic sprinkler system by over-watering. Set it to provide thorough but infrequent watering. Check sprinkler heads regularly to make sure they are working properly. Install rain shut-off devices and adjust sprinklers to eliminate coverage on pavement.
- Use drip irrigation systems for bedded plants, trees, or shrubs. For lawns, use low-angle sprinklers that spray towards the ground instead of towards the air.
- When you do water, do it during the early morning hours when temperatures and wind speeds are the lowest. This reduces loss from evaporation.
- Don't scalp lawns when mowing during hot weather; taller grass holds moisture better. A lawn cut higher encourages grass roots to grow deeper, shades the root system and holds soil moisture better than a closely-clipped lawn. Also, leave lawn clippings on the lawn instead of bagging.
- If replacing or adding landscaped areas, choose drought tolerant plants and shrubs.
- Use and re-fresh mulch on flowerbeds or barren soil areas. Mulch helps retain moisture in the soil and reduces the need for watering.

Additionally, a water catchment system is an excellent way to store natural, non-chlorinated water for your plants. These barrels can act as an immediate reserve for landscaping needs, even when public water system restrictions may be in effect. Small water barrels can be put in place very easily, with minimal effort and expense, and many are decorative and stylish in design. These small barrels can be connected directly to rain gutter downspouts or they can be connected to the drain line from an air conditioning unit, to capture and store the condensation created by the unit. Even during a drought, capturing and storing condensation from your air conditioning unit is a renewable source of water catchment, especially during a hot summer when plants need it the most. If you have a private water well, using water catchment barrels for your plants instead of well water will provide some relief for your well and help to maintain a higher water level during times of drought. Furthermore, there are rebate programs available for water catchment systems that may provide a full reimbursement of your costs. More information about these programs can be found online.

Information about the HGCD Monitor Wells can be found on our website at www.hgcd.org.

Weekly Texas Drought Monitoring: https: https://www.drought.gov/states/texas

U.S. Drought Monitor: Texas



Drought & Dryness Categories	% of TX
D0 – Abnormally Dry	**26.7%**
D1 – Moderate Drought	**32.8%**
D2 – Severe Drought	**14.5%**
D3 – Extreme Drought	**3.8%**
D4 – Exceptional Drought	**1.1%**
Total Area in Drought (D1–D4)	**52.1%**

The U.S. Drought Monitor depicts the location and intensity of drought across the country. The map uses 5 classifications: Abnormally Dry (D0), showing areas that may be going into or are coming out of drought, and four levels of drought (D1–D4). This map is used by the U.S. Department of Agriculture to trigger some disaster declarations and loan eligibility. Individual states and water supply planning may use additional information to inform their declarations and actions. How has drought impacted Puerto Rico in the past? View examples of past drought impacts or explore historical Drought Monitor maps. Source(s): NDMC, NOAA, USDA

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Data Valid: 08/01/23

Drought.gov