

How does the District make a drought declaration? The Barton Springs/Edwards Aquifer Conservation District (District) has two drought triggers. They are the Lovelady Monitor Well and Barton Springs. Only one of the two drought stage triggers needs to be reached for a drought declaration to be made. However, to exit a drought stage, both Barton Springs and Lovelady must rise above their respective drought triggers. This latter requirement keeps the District from making multiple declarations about drought over short periods of time.

Drought Stages/Trigger Chart

Figure 1 (right) shows the District’s different drought stages and triggers. There is a “No-Drought” condition, the Water Conservation Period (Stage I), and three stages: Alarm (Stage II), Critical (Stage III), and Exceptional (Stage IV) Drought. The Water Conservation Period is in place between May and September 30 of each year when not in a declared drought stage, during which voluntary reductions in water are requested and expected of all groundwater users. Required reduction measures begin with Alarm (Stage II) Drought. More stringent reduction measures are required in Critical (Stage III) and Exceptional (Stage IV) Drought status.

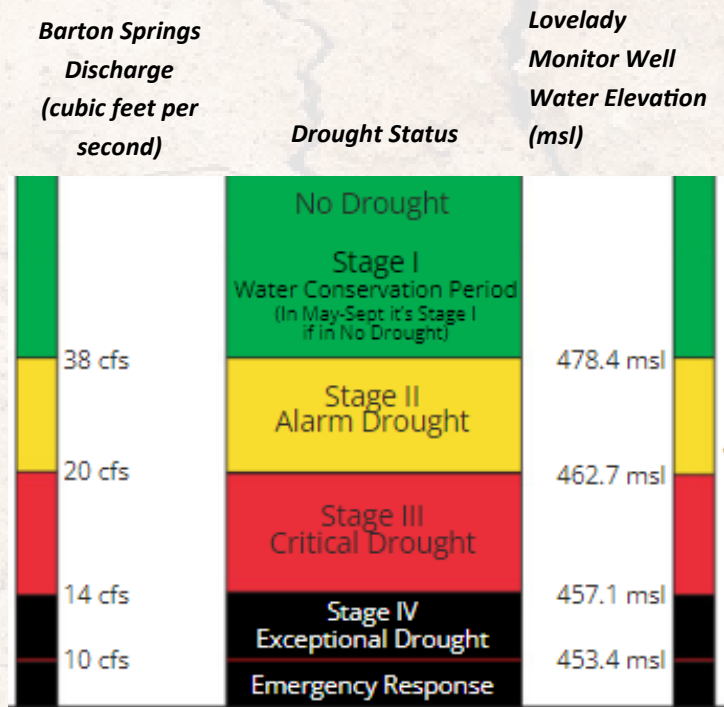
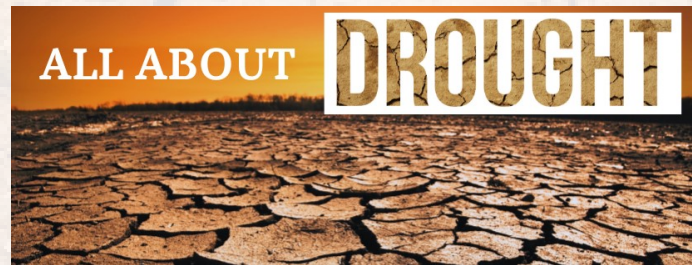


Figure 1

Drought Status Deep Dive

- **No-Drought Status.** The District will be in a “No Drought” condition when, for a period of ten or more days, the rate of discharge at Barton Springs is above the Alarm (Stage II) Drought flow rate of 38.0 cfs, and the elevation of the water level is the Lovelady Drought Indicator well is above the Alarm (Stage II) Drought level of 478.4 feet, relative to mean sea level datum (msl), and/or when the Board declares a “No-Drought” condition. During this condition, the District will maintain and conduct a routine aquifer monitoring program. This stage shall be determined and administered at the discretion of the District’s General Manager.



- **Water Conservation Period (Stage I).** This period is in effect between May 1 and September 30th every year when the District is not in a declared drought stage. Permittees within the District will be expected to follow the voluntary measures described in their User Drought Contingency Plans (UDCPs) during this period, and all other groundwater users will be asked to reduce their water use voluntarily during this period.
- **Alarm Drought (Stage II).** Alarm (Stage II) Drought commences when a ten-day running average rate of discharge from Barton Springs is equal to or less than 38.0 cfs, or the elevation of the water level in Lovelady Drought Indicator Well is equal to or less than 478.4 feet (msl), and the District's Board of Directors determines that conditions warrant the declaration of this stage.
- **Critical Drought (Stage III).** Critical (Stage III) Drought commences when a ten-day running average rate of discharge from Barton Springs is equal to or less than 20.0 cfs, or the elevation of the water level in the Lovelady Drought Indicator Well is equal to or less than 462.7 feet (msl), and the Board determines that conditions warrant the declaration of this stage.
- **Exceptional Drought (Stage IV).** Exceptional (Stage IV) Drought applies only to the Freshwater Edwards Management Zones and commences when a ten-day running average rate of discharge from Barton Springs is equal to or less than 14.0 cfs, or the ten-day running average elevation of the water level in the Lovelady Drought Indicator Well is equal to or less than 457.1 feet (msl), and the Board determines that conditions warrant the declaration of this stage.
- **Emergency Response Period (ERP).** The District Board may declare an ERP, applicable to the Western and Eastern Freshwater Edwards Management Zones, during Extreme Drought conditions when a ten-day running average rate or discharge from Barton Springs is at or below 10 cfs or the ten-day running average water level elevation in the Lovelady Drought Indicator Well is equal to or less than 453.4 (msl). The Board may take emergency action and request other governmental agencies to implement structural measures designed to minimize take and prevent jeopardy of endangered species populations.



Staff taking streamflow measurements at Barton Springs



Staff and USGS getting levels at Lovelady



Drought Management

The District’s drought management program is based on the drought trigger methodology that was adopted and implemented in February 2006. Upon drought declaration by the Board, each District permittee is required to implement the measures of their adopted UDCP to obtain mandatory pumpage reductions. The District currently has around 150 permittees. Pumpage reductions are determined by the permit type and the prevailing drought stage as outlined in the table (figure 2) below. If a permittee excessively and repeatedly violates the pumping curtailments, enforcement procedures can be implemented by the District and penalties may be assessed in accordance with the Enforcement Plan. For a more detailed look at the District’s drought trigger methodology and Enforcement plan, please visit the District’s website at <https://bseacd.org/regulatory/drought-management/>.

| Drought Curtailment Chart | | | | | | | | | | | | |
|----------------------------------|---------------------------------------|--------------------|-------------------|-----------------------------------|--------------------|----------------|----|---------------|------------------------|---------------|--------------|----------------|
| Management Zone | | Aquifer | | Edwards Aquifer | | | | | Trinity Aquifer | | | |
| | | | | Eastern/Western Freshwater | | | | Saline | Lower | Middle | Upper | Outcrop |
| | | Permit Type | | Historical | Conditional | | | | Hist. | Hist. | Hist. | Hist. |
| | | | Class A | Class B | Class C | Class D | | | | | | |
| Drought Stages | No Drought | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | Water Conservation (Voluntary) | 10% | 10% | 10% | 10% | 10% | 0% | 10% | 10% | 10% | 10% | |
| | Alarm | 20% | 20% | 50% | 100% | 100% | 0% | 20% | 20% | 20% | 20% | |
| | Critical | 30% | 30% | 75% | 100% | 100% | 0% | 30% | 30% | 30% | 30% | |
| | Exceptional | 40% | 50% ¹ | 100% | 100% | 100% | 0% | 30% | 30% | 30% | 30% | |
| | Emergency Response Period | 50% ³ | >50% ² | 100% | 100% | 100% | 0% | 30% | 30% | 30% | 30% | |

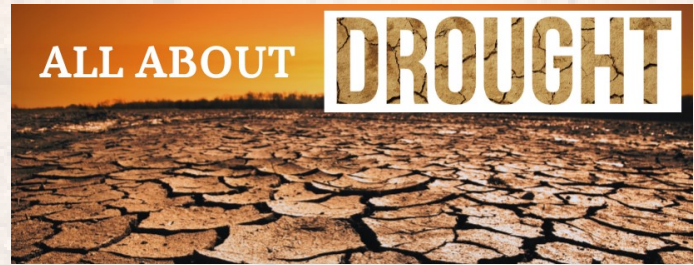
Percentages indicate the curtailed volumes required during specific stages of drought.

¹ Only applicable to NDUs and existing unpermitted nonexempts after A to B reclassification triggered by Exceptional Stage declaration

² Curtailment > 50% subject to Board discretion

³ ERP (50%) curtailments become effective October 11, 2015. ERP curtailments to be measured as rolling 90-day average after first three months of declared ERP.

All permittees are required to submit monthly meter readings and those meter readings are used by the District to calculate the actual monthly pumpage volumes for each permittee. The District is then able to analyze whether permittees have met their required curtailments and target production volumes or if they overpumped.



Drought Questions

How will I get notification for drought and water restrictions?

When the District's Board of Directors declares a drought stage, staff will immediately notify all non-exempt (non-domestic) use permittees of the declaration via email and US postal mail of the declaration. These communications will contain information about curtailments, usage, and conservation practices. If a permittee needs copies of their User Drought Contingency Plan and/or Drought Target Chart, please contact Regulatory Compliance staff at (512) 282-8441 or eswanson@bseacd.org. Notification of drought will also occur through email, the District website, and other means. The District staff will typically place drought signs in many, but not all, neighborhoods known to be on exempt wells. The District will send out a press release whenever a drought declaration is made, or if we are lifting drought restrictions. You will also find a banner at the top of the District's website and you can visit the District's drought status page. Please also follow the District's social media channels for the latest news. You can find us on Facebook, Twitter, Instagram, YouTube and Nextdoor by typing in Barton Springs/Edwards Aquifer Conservation District or BSEACD.

If I have a private well, do I need to adhere to drought restrictions?

Exempt-well owners are not subject to mandatory drought restrictions but all well owners are encouraged to conserve and curtail during drought. The District has a special class of domestic-well owners that hold Limited Production Permits (LPP). LPPs are also not subject to mandatory drought restrictions, but will adopt the recommended drought stage measures outlined in the User Conservation Plan that they agreed to during the application process. If you are a LPP holder and need a copy of the user conservation plan or interested in reviewing the drought and conservation measures, please reach out to the District at 512-282-8441, or drop by our office during located at 1124 Regal Row in Austin, Texas during business hours between 8:00 a.m. and 5:00 p.m. While exempt users (e.g. private-well owners) don't sign a User Conservation Plan, it is highly recommended that they adopt the same measures outlined in a LPP user conservation plan.

Are outdoor watering schedules different for aquifer users than City of Austin users?

The District does not have a watering schedule because we do not sell or provide water to end users. The District requires permittees to implement practices outlined in their User Drought Contingency Plan to ensure that they comply with their required curtailments. If a permittee needs copies of their User Drought Contingency Plan and/or Drought Target Chart, please contact Regulatory Compliance staff at (512) 282-8441 or eswanson@bseacd.org.



**Barton Springs
Edwards Aquifer**
CONSERVATION DISTRICT



Drought Questions

Are wells going to run dry during drought?

Water levels in karst aquifers (Edwards and Trinity Aquifers) fluctuate due to droughts, seasonal variations, and pumping. Usually, if a well stops producing water due to declining water levels, the well is not completely dry, but the water level has dropped below the pump, which is often set 50 or more feet above the bottom of the well borehole. Wells completed in shallower aquifer units are more directly influenced by lack of rainfall and drought than wells completed in deeper units. Because of this, shallower wells are generally more susceptible to impacts from declining water levels than deeper wells. A well log can provide more information about your well depth and in which aquifer the well is completed:
<https://bseacd.org/education/well-owners/#WellLogSearch>.

If you have questions about your well, please contact us at 512-282-8441. We encourage you to call or visit our office (1124 Regal Row, Austin, TX) during office hours (8 a.m. to 5 p.m.) to review our groundwater management process, receive information about the drought, or if you need assistance with other groundwater related matters.