ERCOT estimates the amount of capacity and generation potentially at risk of losing water supplies within the next 18 months based on current reservoir levels and historical withdrawals under drought conditions. Generation or capacity "at risk" refers to generation resources with water supplies that are at or approaching low levels (i.e., level of intake).

When water supply becomes "severely at-risk" (at risk within 6 months), the generator can still withdraw water for cooling water and other purposes. However, this is a trigger point at which the owner of the resource should evaluate mitigation options. In some cases mitigation is not possible due to customer demand, financial, or operational constraints. In these cases a second trigger point would occur when the water supply reaches the intake level and becomes non-operational.

Generation technology type impacts the amount of water a unit uses in the generation process and for cooling. Simple cycle power generation units generally have a much lower water consumption compared to other technologies. These generation units are included in ERCOT’s drought risk analysis because there is some risk of drought-related outage. However, this risk is lower for simple cycle units than for other generating technologies. Depending on the unit configuration and operating characteristics, simple cycle units may continue to operate even once reservoirs or groundwater aquifers reach low water levels.
The map below shows the current reservoir or groundwater storage available in the primary reservoirs from which generating resources in the ERCOT region withdraw water.* Each dot on the map corresponds to a generating site, sized according to the amount of power (MWh) provided to the grid annually in 2019, and colored according to the amount of storage currently available in the reservoir or aquifer.

Reservoir Storage as of March 1, 2019

*Ocean water sources are assumed to be at 100% of available storage.

Additional information about ERCOT’s drought risk analysis methodology and related reports can be found at http://www.ercot.com/gridinfo/resource