

Drought and the Lower Colorado River Basin

The Highland Lakes, which provide water to more than a million people, sit in the Texas Hill Country, an arid region that is prone to both flash floods and severe droughts.



Lake Travis during extreme drought (left) and during wetter times (right). The drought-flood cycle has been repeated time and again in the history of the Highland Lakes.

During wetter periods, lakes Travis and Buchanan – the two water supply reservoirs in the Highland Lakes system – capture water to hold it for later use. During drier times, water stored in the lakes is available for communities, industries, power plants and agriculture until the rains return. This design has provided a reliable, sustainable water supply since the Highland Lakes were created in the 1930s-50s.

Why do lake levels vary? Lakes Travis and Buchanan were designed to fluctuate, so levels can vary significantly from year to year, or in severe droughts, even month to month. During droughts, inflows (water flowing into the lakes from streams and tributaries) drop, and lake levels fall as customers use water from the lakes and as lake water evaporates in hot and windy weather. Throughout the history of the Highland Lakes, levels in lakes Travis and Buchanan are almost always rising or falling; the lakes are not constant-level lakes.

Why does LCRA release water from the Highland Lakes dams during a drought? Water is moved downstream through the dams to meet water supply needs even during a drought. As a regional water provider, LCRA provides “firm” water to wholesale customers such as cities and power plants. It provides “interruptible water” for agriculture (primarily rice farming) in Wharton, Colorado and Matagorda counties near the Texas Gulf Coast under criteria set out in LCRA’s state-approved Water Management Plan. The plan also requires LCRA to

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provide water from the lakes to help meet the environmental needs of the lower Colorado River and Matagorda Bay.

Will we run out of water? In a word, no.

During a serious drought, the Water Management Plan requires LCRA to curtail or cut off interruptible stored water from the Highland Lakes for agriculture so water supplies will continue to be available to meet the basic needs of cities, businesses and industries. As a drought worsens, the plan also reduces the requirements for water to be released from the lakes to help provide environmental flows in the river and Matagorda Bay.

Will I be required to limit my water use? If so, by how much? Water conservation is important all the time, not just during droughts, and LCRA encourages efficient, non-wasteful water use year-round.

LCRA's Drought Contingency Plan for Firm Water Customers outlines when its wholesale customers such as cities and industries will be required to cut back water use during a drought.

Local water suppliers have specific plans that apply to their end-use customers, including residences and businesses. As drought conditions worsen, these plans will cut back on certain uses, such as outdoor watering. Check with your local water provider for details on how water use restrictions may apply to you.

What can I do to save water? Visit the Tools and Resources page at www.WaterSmart.org for tips. LCRA also offers several programs to encourage water conservation:

- WaterSmart Rebates can help offset the cost of upgrading irrigation systems, maintaining landscapes and pools, and testing your soil.
- WaterMyYard offers recommendations on how long to run irrigation systems efficiently while maintaining healthy lawns.
- WaterSmart Landscape Guidelines can help homeowners and homebuilders create well-designed, water-efficient landscapes.

Visit www.WaterSmart.org for more information.