The severe drought affecting the lower Colorado River basin continued in 2013 for the sixth year. Because of the drought, in 2013 the amount of water flowing into the Highland Lakes from the river and tributaries, called inflows, was the second lowest on record.

In order for water to fill the lakes, it must fall in or above the lakes in their watershed, an area upstream of Austin stretching north past San Saba and west past Fredericksburg and Junction. There was significant rain in the lower Colorado River basin in 2013, including storms powerful enough to cause damaging floods in Austin and other communities late in the year. However, much of the heavy rain in 2013 fell in Austin or downstream of Austin, where it flowed into Lake Austin, Lady Bird Lake or the Colorado River downstream of the Highland Lakes. That water cannot be captured upstream in lakes Travis and Buchanan, the Highland Lakes reservoirs, and flows down the Colorado River toward Matagorda Bay.

From 2008 to 2013, total inflows into the Highland Lakes were only 33 percent of the historical average. This is the lowest total inflows for any six-year period since the completion of Mansfield Dam, forming Lake Travis, in 1942.

In response to the ongoing drought, the Lower Colorado River Authority (LCRA) instituted temporary drought measures for the second consecutive year. These measures, approved by the Texas Commission on Environmental Quality, cut off Highland Lakes water to most interruptible customers in 2013.

**Water use by source** — LCRA uses two basic sources of water to meet customers’ needs: water naturally flowing in the Colorado River, and water stored in the Highland Lakes. When the flow of the Colorado River is greater than the needs for water — for example, during floods — LCRA stores the excess water in lakes Buchanan and Travis, the water supply reservoirs in the Highland Lakes chain. In 2013, the flow of the Colorado River was well below average. Water stored in the Highland Lakes helped meet about 50 percent of the total needs for water in the lower Colorado River basin.

**Highland Lakes water use** — LCRA contracts with customers to provide water stored in the Highland Lakes. Contracts for stored water can be for either firm or interruptible supply. LCRA also uses water from the Highland Lakes to help maintain environmental flows and for hydroelectricity to meet emergency needs for power, when ordered to do so by the Electric Reliability Council of Texas. In 2013, the Highland Lakes supplied 228,959 acre-feet of water.

**Firm water contracts** — These contracts supply cities, businesses and industries that need a reliable long-term water supply. Firm supply is expected to be available through a repeat of the worst drought our region has experienced, the 1947–1957 Drought of Record. Firm customers accounted for 173,148 acre-feet, or about 75.6 percent of all water used from the Highland Lakes in 2013.

**Interruptible water contracts** — These contracts primarily supply agricultural customers. Interruptible water is subject to cutbacks during drought conditions. Interruptible agricultural customers used 22,346 acre-feet of water, or about 9.8 percent of all water used from the Highland Lakes in 2013.

**Environmental and emergency hydroelectric releases** — LCRA releases water from the Highland Lakes to meet environmental flow requirements for the Colorado River downstream of Austin and for Matagorda Bay. Environmental flow releases accounted for 33,465 acre-feet, or about 14.6 percent of all water used from the Highland Lakes. No water was released from the Highland Lakes to meet emergency needs for electricity in 2013.

**Colorado River water use** — In addition to the rights to water from the Highland Lakes, LCRA owns and manages other rights to water from the Colorado River. In 2013, a total of 141,217 acre-feet of water was supplied from the Colorado River for agricultural, municipal and industrial uses under these water rights.
Emergency releases — On occasion, the Electric Reliability Council of Texas directs LCRA to release water through its hydroelectric generators to meet short-term, urgent power needs in the state. LCRA released no water from the Highland Lakes system due to emergency electrical power needs in 2013.

**Firm water released but not used** — LCRA estimates that 23,520 acre-feet were released from the Highland Lakes and not pumped by firm customers because the water was lost to evaporation, seeped into the banks or was not needed because of changing conditions. When this amount is added to the water pumped, the total water supplied to LCRA’s firm water customers in 2013 was 173,148 acre-feet.

The City of Austin owns several water rights that allow it to pump water from the Colorado River. The city also relies on water from the Highland Lakes under a contract with LCRA. In 2013, the city’s municipal and park irrigation use was 142,027 acre-feet, including 80,398 acre-feet diverted under Austin’s water right from the Colorado River at Lake Austin and 61,629 acre-feet obtained under contract with LCRA from the Highland Lakes.

Interruption water released but not pumped — Only the Garwood irrigation system received interruption water from the Highland Lakes in 2013. LCRA estimates that 3,025 acre-feet were released from the Highland Lakes and not pumped by Garwood because the water was lost to evaporation, seeped into the banks or conditions changed that eliminated the need for the water. When this amount is added to the water pumped, the total water released from the Highland Lakes for LCRA’s interruption water customers in 2013 was 22,346 acre-feet.

Flow to bay — LCRA estimates that about 569,266 acre-feet of fresh water flowed in the Colorado River past Bay City toward Matagorda Bay in 2013. Most of this water came from rainfall and runoff occurring below the Highland Lakes, which is a source of water for customers such as STPNOC and downstream interruption customers. LCRA estimates a total of 14,686 acre-feet of water was released from the Highland Lakes in April, July and September to meet critical freshwater inflow needs.

*Temporary water use permit allowed 1,080 acre-feet of water authorized by the Gulf Coast water right to be diverted for municipal and industrial purposes at other locations in 2013.*