

How does 2011 compare?

TYPE OF WATER USE	2009	2010	2011
Municipal Water Use	218,202	209,265	246,601
Water from the Highland Lakes	110,150	78,091	184,889
Water from the Colorado River	108,052	131,174	61,712
Industrial Water Use	112,716	86,258	60,272
Water from the Highland Lakes	33,234	35,572	53,757
Water from the Colorado River	79,482	50,686	6,515
Agricultural Water Use	509,839	430,622	529,580
Water from the Highland Lakes	367,920	182,152	433,251
Water from the Colorado River	141,919	248,470	96,329
Recreational & Firm Irrigation	5,945	5,784	9,099
Environment*	32,573	19,279	33,433
Emergency Hydroelectric Releases	2,084	352	345
TOTAL WATER USE	881,359	751,560	879,330

Why does LCRA release water from the Highland Lakes? Releases are made for several reasons:

1. LCRA is legally obligated to pass water through the dams if a downstream senior water right holder is entitled to the water. Downstream senior water rights include those owned by LCRA and by the cities of Austin and Corpus Christi.
2. LCRA releases water to meet needs of customers such as the City of Austin, power plants and farmers.
3. LCRA releases water for environmental flow needs for the river and Matagorda Bay.

*Dedicated environmental releases are the amounts of water released solely for the purpose of satisfying environmental needs.

In addition, releases for downstream customers and runoff flowing into the river and bays help satisfy environmental needs.

Learn more about the lower Colorado River

- Visit the Daily River Report at www.lcra.org. Click the button on right column.
- Visit www.lcra.org/watersupply to learn about long-term planning.
- Visit www.lcra.org/water/supply/contracts/index.html for a complete list of LCRA's firm water contracts.

LCRA Water Use Summary 2011

Water stored in the Highland Lakes was vital to meeting the basin's needs for water in 2011. A very severe drought affected the Colorado River basin throughout the year, and stream flows into the Highland Lakes were the lowest on record. Below the Highland Lakes, flow in the Colorado River dropped to very low levels. Water was drawn from storage in the Highland Lakes to help LCRA and LCRA customers weather the drought, and lakes Buchanan and Travis dropped to their third lowest levels on record. This report includes information on the use of the major water rights in the lower Colorado River basin held by LCRA and LCRA customers.

Evaporation - Hot temperatures and windy days can significantly increase evaporation of water. In 2011, an estimated 192,404 acre-feet evaporated from the six Highland Lakes (Buchanan, Inks, LBJ, Marble Falls, Travis, and Austin).

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. Water supplied from the Highland Lakes comes from lakes Buchanan and Travis, the water supply reservoirs in the Highland Lakes chain. In 2011, the Colorado River had very little natural flow. The basin relied heavily on water stored in the Highland Lakes to meet its needs.

Highland Lakes Water Use

LCRA contracts with customers to provide water from storage in the Highland Lakes. Contracts for stored water can be for interruptible water supply or firm supply. LCRA also uses water from the Highland Lakes to help maintain environmental flows and to meet emergency needs for hydroelectric power. In 2011, a total of 714,434 acre-feet of water was supplied from the Highland Lakes.

Interruptible contracts primarily supply agricultural customers. These contracts are subject to cutbacks during drought conditions. Interruptible agricultural customers in the lower basin used the most water of all customers in 2011, a total of 433,251 acre-feet or 61 percent of all water used from the Highland Lakes.

Firm 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. In 2011, a total of 247,405 acre-feet of water was supplied from the Highland Lakes to firm customers.

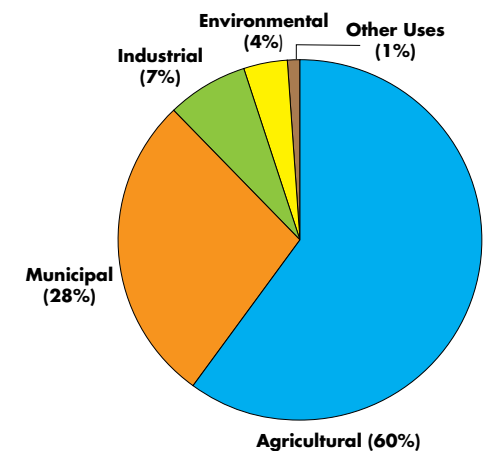
Environmental and emergency hydroelectric releases — LCRA releases water from the Highland Lakes to meet minimum flow requirements for the Colorado River downstream of Austin and for Matagorda Bay. In 2011, 33,433 acre-feet was released to meet environmental targets and 345 acre-feet was released from the Highland Lakes to meet emergency needs for electricity.

Colorado River Water Use

In addition to the water supply available from the Highland Lakes, LCRA owns other water rights on the Colorado River. In 2011, a total of 101,125 acre-feet of water was supplied from the Colorado River for agricultural and industrial uses under these water rights.

Water rights	2011 Use (in acre-feet)
LCRA Garwood	73,836
LCRA South Texas Project	2,267
LCRA Lakeside	3,534
LCRA Gulf Coast	18,347
LCRA Pierce Ranch	3,142
LCRA Lakes Buchanan and Travis	714,434
SUBTOTAL - LCRA	815,558
City of Austin Water Rights	63,772
TOTAL	879,330

2011 Water Use
LCRA and Austin Water Rights
(Percentage of total use)



Customer Water Use in 2011

2011 Total Water Pumped by LCRA's Firm Water Customers

Water Supplied from the Highland Lakes	Volume (acre-feet)
City of Austin	106,622
LCRA Fayette Power Project	17,903
City of Cedar Park	15,786
Austin Energy Fayette Power Project	8,843
Austin Energy Decker Power Plant	8,291
Travis County WCID No. 17	8,090
City of Pflugerville	7,275
LCRA Water and Wastewater Utilities	6,517
LCRA Sim Gideon Power Plant	5,505
City of Leander	4,881
Oxea Corporation	3,819
Travis County MUD No. 4	3,467
Lakeway MUD No. 1	2,960
Underground Services Markham, L.P.	2,447
City of Horseshoe Bay	2,422
GenTex Power Corporation	2,141
Bastrop Energy Partners	1,906
City of Lago Vista	1,872
City of Marble Falls	1,762
Hurst Creek MUD	1,588
LCRA Ferguson Power Plant	504
Other Firm Customers	24,338
Subtotal from Highland Lakes	238,939
Water Supplied from Other Water Rights	Volume (acre feet)
City of Austin	63,772
South Texas Nuclear Project	2,267
Oxea Corporation	1,720
Underground Services Markham	808
Subtotal from Other Water Rights	68,567
Total from Both Sources (acre-feet)	307,506

Emergency releases – On occasion, the Electric Reliability Council of Texas requests LCRA to release water through its hydroelectric generators to meet short-term, urgent power needs in the state. In 2011, LCRA released 345 acre-feet from the Highland Lakes system for emergency electrical power needs.

City of Austin owns a water right that allows it to pump water from the Colorado River. The City also relies on water from the Highland Lakes under a contract with LCRA. In 2011, the City's municipal use was 168,334 acre-feet, including 61,712 acre-feet diverted under Austin's water right from the Colorado River at Lake Austin and 106,622 acre-feet obtained from the Highland Lakes under a contract with LCRA.

2011 Total Water Pumped for LCRA's Interruptible Water Customers (Agriculture)

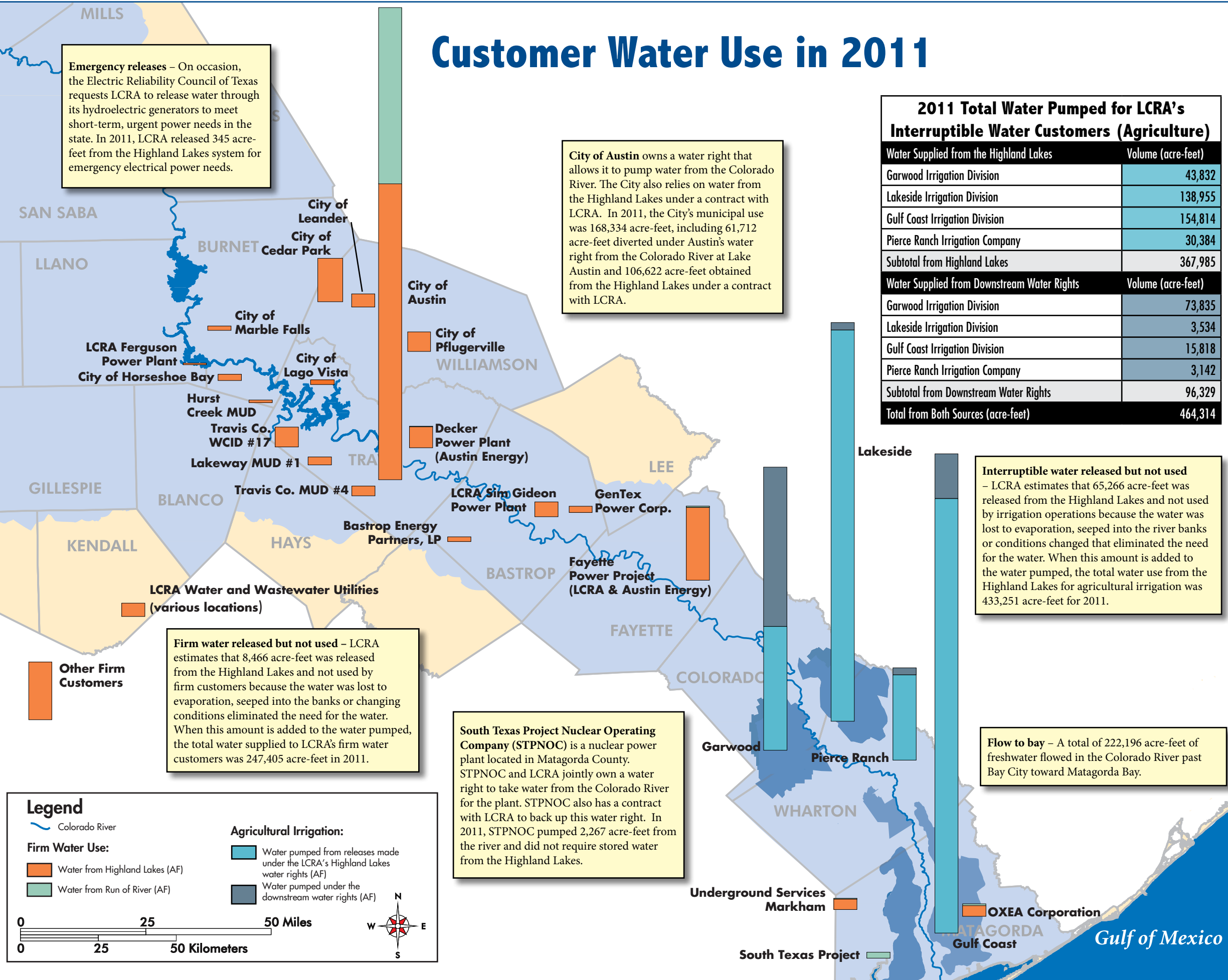
Water Supplied from the Highland Lakes	Volume (acre-feet)
Garwood Irrigation Division	43,832
Lakeside Irrigation Division	138,955
Gulf Coast Irrigation Division	154,814
Pierce Ranch Irrigation Company	30,384
Subtotal from Highland Lakes	367,985
Water Supplied from Downstream Water Rights	Volume (acre-feet)
Garwood Irrigation Division	73,835
Lakeside Irrigation Division	3,534
Gulf Coast Irrigation Division	15,818
Pierce Ranch Irrigation Company	3,142
Subtotal from Downstream Water Rights	96,329
Total from Both Sources (acre-feet)	464,314

Interruptible water released but not used – LCRA estimates that 65,266 acre-feet was released from the Highland Lakes and not used by irrigation operations because the water was lost to evaporation, seeped into the river banks or conditions changed that eliminated the need for the water. When this amount is added to the water pumped, the total water use from the Highland Lakes for agricultural irrigation was 433,251 acre-feet for 2011.

Flow to bay – A total of 222,196 acre-feet of freshwater flowed in the Colorado River past Bay City toward Matagorda Bay.

Firm water released but not used – LCRA estimates that 8,466 acre-feet was released from the Highland Lakes and not used by firm customers because the water was lost to evaporation, seeped into the banks or changing conditions eliminated the need for the water. When this amount is added to the water pumped, the total water supplied to LCRA's firm water customers was 247,405 acre-feet in 2011.

South Texas Project Nuclear Operating Company (STPNOC) is a nuclear power plant located in Matagorda County. STPNOC and LCRA jointly own a water right to take water from the Colorado River for the plant. STPNOC also has a contract with LCRA to back up this water right. In 2011, STPNOC pumped 2,267 acre-feet from the river and did not require stored water from the Highland Lakes.



Legend

- Colorado River
- Firm Water Use:**
 - Water from Highland Lakes (AF)
 - Water from Run of River (AF)
- Agricultural Irrigation:**
 - Water pumped from releases made under the LCRA's Highland Lakes water rights (AF)
 - Water pumped under the downstream water rights (AF)

Scale: 0, 25, 50 Miles / 0, 25, 50 Kilometers

Gulf of Mexico