

How does 2012 compare?

TYPE OF WATER USE	2009	2010	2011	2012
Municipal Water Use	218,202	209,265	246,601	228,570
Water from the Highland Lakes	110,150	78,091	184,889	122,360
Water from the Colorado River	108,052	131,174	61,712	106,210
Industrial Water Use	112,716	86,258	60,272	117,977
Water from the Highland Lakes	33,234	35,572	53,757	19,133
Water from the Colorado River	79,482	50,686	6,515	98,844
Agricultural Water Use	509,839	430,622	529,580	102,668
Water from the Highland Lakes	367,920	182,152	433,251	8,896
Water from the Colorado River	141,919	248,470	96,329	93,772
Recreational & Firm Irrigation	5,945	5,784	9,099	6,546
Water from the Highland Lakes	5,753	5,550	8,759	6,338
Water from the Colorado River	192	234	340	208
Environment* (from the Highland Lakes)	32,573	19,279	33,433	31,285
Emergency Hydroelectric Releases (from the Highland Lakes)	2,084	352	345	0
TOTAL WATER USE	881,359	751,560	879,330	487,046

Why does LCRA release water from the Highland Lakes?

1. LCRA is legally obligated to let river flows from upstream of the lakes pass 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 the needs of customers such as the City of Austin, power plants and farmers.
3. LCRA releases stored 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 button on right column.
- Visit www.lcra.org/water/supply 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.



May 24, 2013

LCRA Water Use Summary 2012



The severe drought affecting the lower Colorado River basin continued in 2012. Because of the dry weather, the amount of water flowing into the Highland Lakes from its river and tributaries, called inflows, was the fifth lowest on record. That followed a record-setting 2011, in which inflows were the lowest ever recorded.

In response to the ongoing drought, the Lower Colorado River Authority (LCRA) instituted temporary emergency drought measures. These measures, approved by the Texas Commission on Environmental Quality, cut off Highland Lakes water to most downstream farmers in 2012 for the first time since the Highland Lakes were built.

Spring rainfall and runoff helped increase the amount of water stored in the Highland Lakes early in 2012. Combined storage in lakes Buchanan and Travis, the region's water supply reservoirs, rose from about 37 percent in January to about 51 percent in late May, the highest level of the year. However, storage fell slowly after that and ended the year at about 41 percent.

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 2012, the flow of the Colorado River was well below average. Water stored in the Highland Lakes helped meet about 39 percent of the total needs for water in the lower Colorado River basin.

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 or firm water. LCRA also uses water from the Highland Lakes to help maintain environmental flow requirements and to meet emergency needs for hydroelectric power. In 2012, a total of 188,012 acre-feet of water was supplied from the Highland Lakes.

Firm water contracts supply cities, businesses and industries that need a reliable long-term water supply. Firm water is expected to be available through a repeat of the worst drought our region has experienced, the 1947-1957 Drought of Record. Firm customers used 147,831 acre-feet of stored water, or about 78.6 percent of all water used from the Highland Lakes in 2012.

Interruptible water contracts primarily supply agricultural customers. Interruptible water is subject to cutbacks during drought conditions. Interruptible agricultural customers in the lower basin used 8,896 acre-feet of stored water, or about 4.7 percent of all water used from the Highland Lakes in 2012.

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 31,285 acre-feet of stored water, or about 16.6 percent of all water used from the Highland Lakes in 2012. No water was released from the Highland Lakes to meet emergency needs for electricity that year.

Colorado River water use

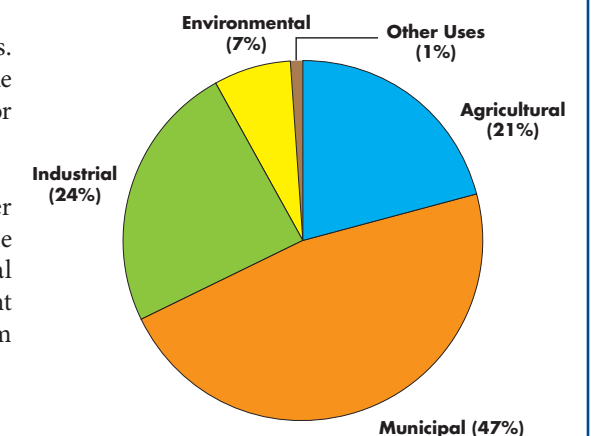
In addition to the rights to water from the Highland Lakes, LCRA owns and manages other rights to water from the Colorado River. In 2012, a total of 190,084 acre-feet of water was supplied from the Colorado River for agricultural, municipal and industrial uses under these water rights.

Evaporation - Hot temperatures and windy days can significantly increase the evaporation of water. In 2012, an estimated 144,759 acre-feet evaporated from the six Highland Lakes (Buchanan, Inks, LBJ, Marble Falls, Travis and Austin).

Water rights - This report includes information on water use in 2012 under major water rights in the lower Colorado River basin held by LCRA and others.

Water Rights	2012 Use (in acre-feet)
LCRA Garwood	76,582
LCRA South Texas Project	79,559
LCRA Lakeside	649
LCRA Gulf Coast	28,565
LCRA Pierce Ranch	4,729
LCRA Lakes Buchanan and Travis	188,012
SUBTOTAL - LCRA	378,096
City of Austin Water Rights	108,770
Bastrop Energy Partners, LP	180
TOTAL	487,046

**2012 Water Use
LCRA and Other Water Rights**
(Percentage of total use)



Customer Water Use in 2012

2012 Total Water Pumped by LCRA's Firm Water Customers

Water Supplied from the Highland Lakes	Volume (acre-feet)
City of Austin, Municipal & Parks	49,474
City of Cedar Park	13,675
LCRA Power Plants, includes:	11,049
• Fayette Power Project (LCRA share)	7,645
• Sim Gideon Power Plant	2,316
• Lost Pines 1 Power Project	716
• Ferguson Power Plant	372
Travis County WCID No. 17	7,842
West Travis County Public Utility Agency	7,480
City of Leander	4,583
Domestic Water Users on Highland Lakes	4,582
Austin Energy Power Plants, includes:	2,739
• Fayette Power Project (AE share)	2,011
• Decker Power Plant	728
Travis County MUD No. 4	2,635
Lakeway MUD	2,574
City of Horseshoe Bay	2,133
Bastrop Energy Partners, LP	1,955
City of Pflugerville	1,951
City of Marble Falls	1,845
City of Lago Vista	1,748
Hurst Creek MUD (The Hills)	1,196
Loop 360 WSC	1,087
City of Burnet	997
Horseshoe Bay Resort, LTD	981
Travis County WCID No. 18	921
Other Firm Customers	10,190
• Diverted from Lake Buchanan	770
• Diverted from Inks Lake	88
• Diverted from Lake LBJ	1,894
• Diverted from Lake Marble Falls	305
• Diverted from Lake Travis	2,939
• Diverted from Lake Austin	2,401
• Diverted Downstream of Lake Austin	1,793
Subtotal from Highland Lakes	131,637
Water Supplied from Other Water Rights	Volume (acre-feet)
City of Austin / Austin Energy, includes:	108,770
• Municipal & Parks	102,021
• Fayette Power Project (AE share)	3,424
• Decker Power Plant	3,325
South Texas Project Nuclear Operating Co.	79,559
Gulf Coast Municipal & Industrial Use, includes:	16,753
• Underground Services Markham, LP	6,566
• Oxea Corporation	3,270
• City of Pflugerville*	4,397
• Fayette Power Project (LCRA share)*	1,770
• Sim Gideon Power Plant*	573
• Lost Pines 1 Power Project*	177
Bastrop Energy Partners, LP	180
Subtotal from Other Water Rights	205,262
Total from Both Sources (acre-feet)	336,899

Emergency releases – On occasion, the Electric Reliability Council of Texas requires 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 for emergency electrical power needs in 2012.

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. The city's municipal and park irrigation use was 151,495 acre-feet, including 102,021 acre-feet diverted under Austin's water right from the Colorado River at Lake Austin and 49,474 acre-feet obtained under contract with LCRA from the Highland Lakes.

Firm water released but not used – LCRA estimates that 16,194 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 conditions changed and 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 in 2012 was 147,831 acre-feet.

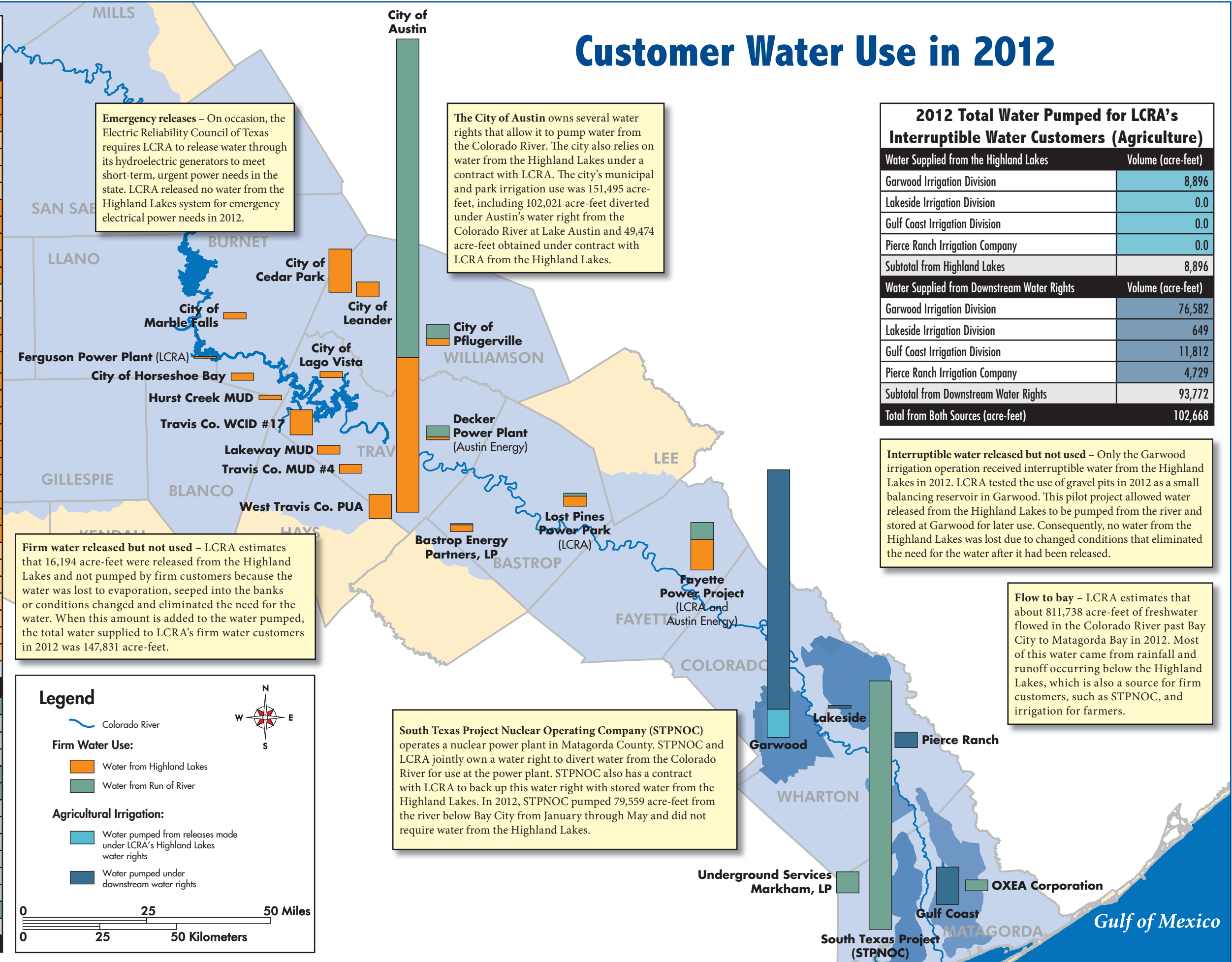
South Texas Project Nuclear Operating Company (STPNOC) operates a nuclear power plant in Matagorda County. STPNOC and LCRA jointly own a water right to divert water from the Colorado River for use at the power plant. STPNOC also has a contract with LCRA to back up this water right with stored water from the Highland Lakes. In 2012, STPNOC pumped 79,559 acre-feet from the river below Bay City from January through May and did not require water from the Highland Lakes.

2012 Total Water Pumped for LCRA's Interruptible Water Customers (Agriculture)

Water Supplied from the Highland Lakes	Volume (acre-feet)
Garwood Irrigation Division	8,896
Lakeside Irrigation Division	0.0
Gulf Coast Irrigation Division	0.0
Pierce Ranch Irrigation Company	0.0
Subtotal from Highland Lakes	8,896
Water Supplied from Downstream Water Rights	Volume (acre-feet)
Garwood Irrigation Division	76,582
Lakeside Irrigation Division	649
Gulf Coast Irrigation Division	11,812
Pierce Ranch Irrigation Company	4,729
Subtotal from Downstream Water Rights	93,772
Total from Both Sources (acre-feet)	102,668

Interruptible water released but not used – Only the Garwood irrigation operation received interruptible water from the Highland Lakes in 2012. LCRA tested the use of gravel pits in 2012 as a small balancing reservoir in Garwood. This pilot project allowed water released from the Highland Lakes to be pumped from the river and stored at Garwood for later use. Consequently, no water from the Highland Lakes was lost due to changed conditions that eliminated the need for the water after it had been released.

Flow to bay – LCRA estimates that about 811,738 acre-feet of freshwater flowed in the Colorado River past Bay City to Matagorda Bay in 2012. Most of this water came from rainfall and runoff occurring below the Highland Lakes, which is also a source for firm customers, such as STPNOC, and irrigation for farmers.



* Temporary water use permit allowed water authorized by the Gulf Coast water right to be diverted for municipal and industrial purposes at other locations during 2012.