

How does 2017 compare?

TYPE OF WATER USE BY LCRA AND ITS CUSTOMERS*	2011	2012	2013	2014	2015	2016	2017
Municipal Water Use	246,601	228,570	213,691	203,668	198,738	210,376	221,037
Water from the Highland Lakes	184,889	122,360	133,317	107,996	98,920	97,134	115,416
Water from the Colorado River	61,712	106,210	80,374	95,672	99,818	113,242	105,621
Industrial Water Use	60,272	117,977	96,253	72,327	92,443	38,949	91,106
Water from the Highland Lakes	53,757	19,133	34,296	14,482	8,776	13,335	22,918
Water from the Colorado River	6,515	98,844	61,957	57,845	83,667	25,614	68,188
Agricultural Water Use[†]	529,580	102,668	108,296	88,401	74,723	254,085	235,255
Water from the Highland Lakes	433,251	8,896	22,346	15,952	0	7,656	59,266
Water from the Colorado River	96,329	93,772	85,950	72,449	74,723	246,429	175,989
Recreational and Firm Irrigation	9,099	6,546	5,680	5,853	5,620	5,123	7,362
Water from the Highland Lakes	8,759	6,338	5,535	5,599	5,346	4,870	7,225
Water from the Colorado River	340	208	145	254	274	253	137
Environment[‡] (from the Highland Lakes)	33,433	31,285	33,465	4,582	0	54,641	67,762
Emergency Hydroelectric Releases (from the Highland Lakes)	345	0	0	490	180	69	82
TOTAL WATER USE	879,330	487,046	457,385	375,321	371,704	563,243[§]	622,604

*Water use is in acre-feet.

[†]Releases from the Highland Lakes for downstream agriculture in the Gulf Coast, Lakeside and Pierce Ranch irrigation operations were suspended from 2012 through 2015 because of the severe drought.

[‡]Dedicated environmental releases are the water released solely for the purpose of satisfying environmental needs. In addition, releases for downstream customers and runoff flowing into the river and bay help satisfy environmental needs.

[§]2016 water use was adjusted regarding water use by the City of Corpus Christi. The 3,416 acre-feet of water used by Corpus Christi in 2016 is not included in this table.

Expanding the Region's Water Supply

In 2017, LCRA continued work to increase water supplies for the lower Colorado River basin. LCRA continued construction on the Arbuckle Reservoir in Wharton County (formerly known as the Lane City Reservoir), the first significant new water supply reservoir in the region in decades. The Arbuckle Reservoir could add up to 90,000 acre-feet per year to the region's water supply. It is expected to begin operating in late 2018. LCRA also continued to explore additional strategies to add to the water supply, including using surface water, treated effluent and groundwater.

Learn more about the lower Colorado River at lcra.org.



LCRA Water Use Summary 2017

April 27, 2018

Hurricane Harvey seriously impacted many communities in the lower Colorado River basin in late August and early September 2017, with some areas receiving up to 30 inches of rain and experiencing widespread flooding. Little rain from the storm fell over the Highland Lakes watershed upstream of Austin in the Texas Hill Country.

Lakes Travis and Buchanan – the region's water supply reservoirs – began the year essentially full, at the top

of their water supply pools. By fall, lake levels dropped slightly because of drier conditions and increased water use, but still remained above their average monthly elevations.

Municipal water use from the Highland Lakes and lower Colorado River by LCRA and its customers increased by 5 percent from 2016 to 2017. LCRA also released water from the Highland Lakes for downstream agriculture in the Gulf Coast, Lakeside and Pierce Ranch irrigation operations in 2017.

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 lakes Buchanan and Travis. When the flows into the Highland Lakes are greater than the downstream needs for water – for example, during floods – LCRA captures as much of the flows as can be safely stored in lakes Buchanan and Travis.

Highland Lakes water use — Contracts for water stored in the Highland Lakes can be for firm or interruptible supply. LCRA also uses water from the Highland Lakes to help maintain environmental flows and to produce hydroelectric energy. In 2017, the Highland Lakes supplied 272,669 acre-feet of water for all uses.

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 driest conditions the region has experienced. Firm customers accounted for 145,560 acre-feet, or about 53 percent of all water used from the Highland Lakes, in 2017.

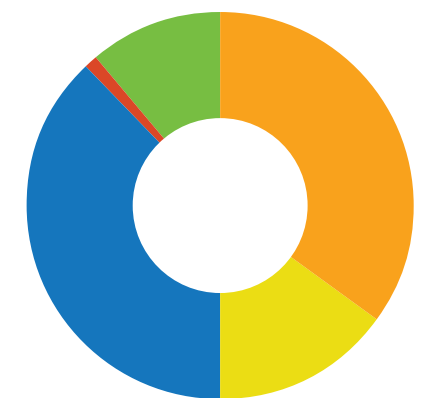
Interruptible water contracts — These contracts primarily supply agricultural customers. Interruptible water is subject to cutbacks during drought conditions. Interruptible agricultural customers used 59,266 acre-feet, or about 22 percent of all water used from the Highland Lakes, in 2017.

Environmental and emergency hydroelectric releases — From time to time, LCRA releases water from the Highland Lakes to meet environmental flow requirements for the Colorado River downstream of Austin and for Matagorda Bay. In 2017, LCRA released 67,762 acre-feet, or about 25 percent of water released from the Highland Lakes, for environmental flows and about 82 acre-feet solely to meet emergency needs for electricity.

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 2017, a total of 239,871 acre-feet of water was supplied from the Colorado River for agricultural, municipal and industrial uses under these water rights.

Water Right	2017 Use (in acre-feet)
LCRA Garwood	67,488
LCRA South Texas Project	55,908
LCRA Lakeside	39,592
LCRA Gulf Coast	66,440
LCRA Pierce Ranch	10,443
LCRA Lakes Buchanan and Travis	272,669
SUBTOTAL — LCRA	512,540
City of Austin Water Rights	109,884
Bastrop Energy Partners, LP	180
TOTAL	622,604

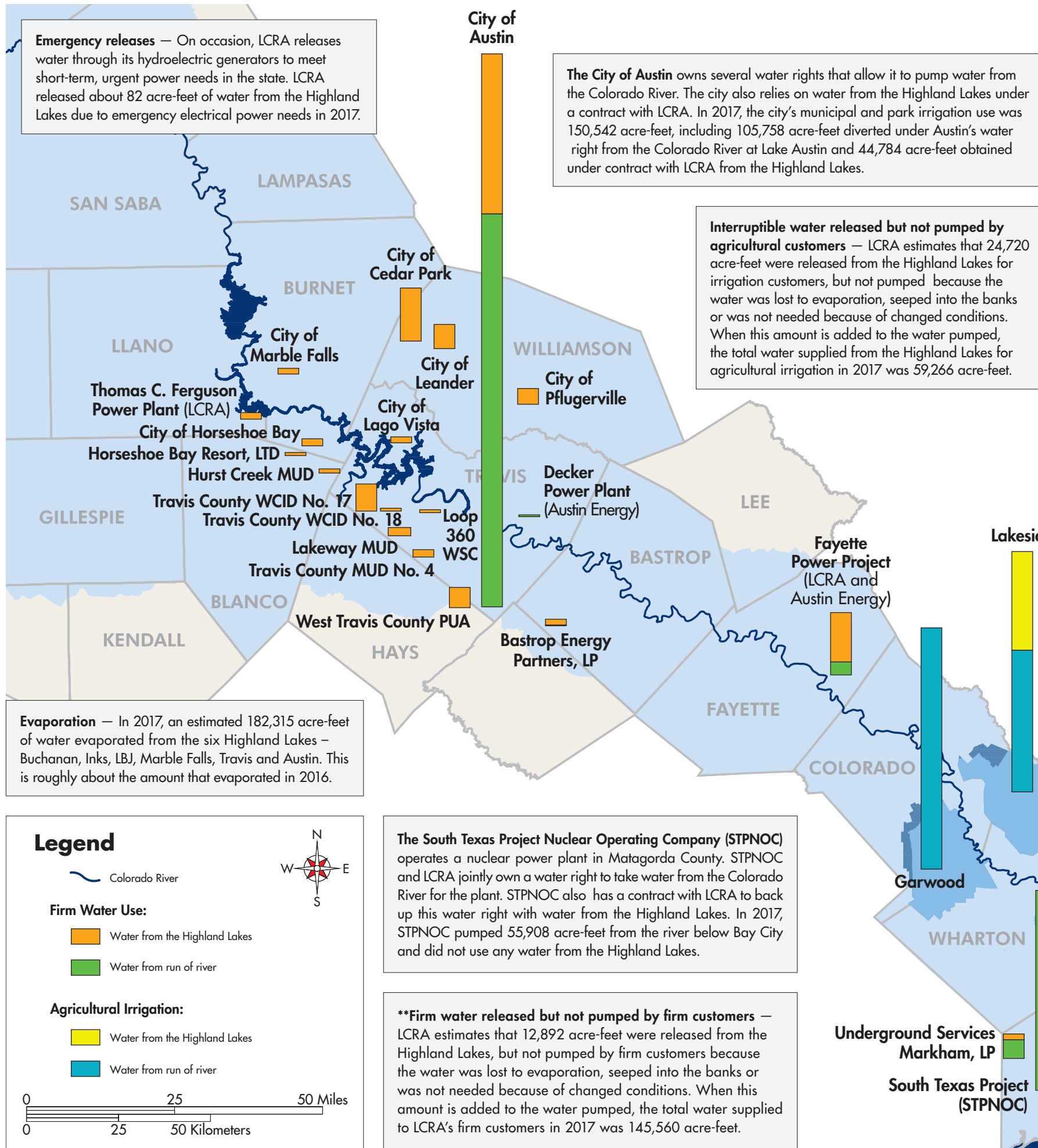
Water Use from Highland Lakes and Lower Colorado River (LCRA and Other Significant Water Rights)



■ Municipal (35%)
 ■ Recreational (1%)
 ■ Environmental (11%)
 ■ Agricultural (38%)
 ■ Emergency Hydroelectric (0%)
 ■ Industrial (15%)

2017 Total Water Pumped by LCRA's Firm Water Customers

Water supplied from the Highland Lakes	Volume (acre-feet)
City of Austin, municipal and parks	44,784
City of Cedar Park	14,851
LCRA power plants, includes:	12,876
• Fayette Power Project (LCRA share)	11,049
• Sim Gideon Power Plant*	0
• Lost Pines 1 Power Project*	0
• Thomas C. Ferguson Power Plant	1,827
Travis County WCID No. 17	7,582
City of Leander	6,762
West Travis County Public Utility Agency	5,660
City of Pflugerville	4,405
Domestic water users on Highland Lakes	3,928
Austin Energy (AE) power plants, includes:	2,761
• Fayette Power Project (AE share)	2,761
• Decker Power Plant	0
Lakeway MUD	2,303
Travis County MUD No. 4	2,059
City of Horseshoe Bay	1,971
City of Lago Vista	1,667
Bastrop Energy Partners, LP	1,644
City of Marble Falls	1,601
Underground Services Markham, LP	1,534
Hurst Creek MUD (The Hills)	1,154
Oxea Corporation	883
Horseshoe Bay Resort, LTD	862
Loop 360 WSC	820
Travis County WCID No. 18	788
Other firm customers	11,783
• Diverted from Lake Buchanan	1,129
• Diverted from Inks Lake	530
• Diverted from Lake LBJ	1,885
• Diverted from Lake Marble Falls	30
• Diverted from Lake Travis	2,882
• Diverted from Lake Austin	5,190
• Diverted downstream of Lake Austin	138
Subtotal from Highland Lakes**	132,668
Water supplied from other water rights	Volume (acre-feet)
City of Austin / Austin Energy, includes:	109,884
• Municipal and parks	105,758
• Fayette Power Project (AE share)	3,617
• Decker Power Plant	509
South Texas Project Nuclear Operating Co.	55,908
Gulf Coast municipal and industrial use, includes:	7,974
• Underground Services Markham, LP	5,240
• Oxea Corporation	2,734
Bastrop Energy Partners, LP	180
Subtotal from other water rights	173,946
Total from both sources	306,614



Customer Water Use in 2017

2017 Total Water Pumped for LCRA's Interruptible Water Customers (Agriculture)

Water supplied from the Highland Lakes	Volume (acre-feet)
Garwood Irrigation Division	0
Lakeside Irrigation Division	27,620
Gulf Coast Irrigation Division	566
Pierce Ranch Irrigation Company	6,360
Subtotal from Highland Lakes	34,546
Water supplied from downstream water rights	Volume (acre-feet)
Garwood Irrigation Division	67,488
Lakeside Irrigation Division	39,592
Gulf Coast Irrigation Division	58,466
Pierce Ranch Irrigation Company	10,443
Subtotal from downstream water rights	175,989
Total from both sources	210,535

Flow to bay — About 2,345,400 acre-feet of fresh water flowed in the Colorado River past Bay City toward Matagorda Bay in 2017. This water came from pass-through releases of excess inflows to the Highland Lakes, and rainfall and runoff occurring below Lake Travis, including flood flows from Hurricane Harvey. This natural flow of the river also is a source of water for customers such as STPNOC and downstream interruptible customers. In 2017, LCRA released 408 acre-feet of water from the Highland Lakes to help meet freshwater inflow needs.

The City of Corpus Christi holds a senior water right in the lower Colorado River basin. Corpus Christi began using water from the river in 2016. In 2017, the city used 1,528 acre-feet.

*Groundwater was used to meet demand.