



2015 Water Management Plan

Key Terms

Acre-foot – the amount of water required to cover an area of 1 acre to a depth of 1 foot. One acre-foot of water is equal to 325,851 gallons.

Combined storage – the total volume of water stored in lakes Buchanan and Travis at a given point in time.

Firm water – water that can be supplied on a consistent basis through a repeat of the worst drought in recorded history for the lower Colorado River basin. “Firm” customers are typically cities and municipalities.

Interruptible stored water – water that can be cut back or cut off during drought or times of shortage to ensure that LCRA can meet firm water customer demands. Agricultural customers typically buy interruptible water.

Background

LCRA manages the water in lakes Travis and Buchanan, the region’s primary water supply, under a state-approved Water Management Plan.

The Texas Commission on Environmental Quality (TCEQ) approved the current Water Management Plan in November 2015.

LCRA began updating the previous plan shortly after it was approved in 2010.

The 2015 Water Management Plan allows LCRA to more quickly adapt its operations as drought conditions change. The plan establishes three sets of operating conditions to determine the availability of interruptible stored water, which is primarily used by agricultural customers in Colorado, Wharton and Matagorda counties. It also sets two dates – March 1 and July 1 – for determining the amount of interruptible stored water available for first and second crop.

2015 Water Management Plan Highlights

- Includes hydrology through 2013.
- Has a framework with three curtailment conditions: Normal Conditions, Less Severe Drought and Extraordinary Drought.
- Determines the amount of interruptible stored water available by taking into account the curtailment condition. The amount of interruptible stored water available is based on current storage, inflows and a look-ahead test to determine whether storage could fall below specified levels.
- Maintains combined storage in lakes Buchanan and Travis above 600,000 acre-feet.
- Commits 33,440 acre-feet per year for environmental flows.
- Includes five levels of bay inflow criteria, which limit dedicated releases of water for bay inflow needs incrementally for lower combined storage levels and in conjunction with curtailment of interruptible stored water for agriculture.

Normal Conditions

Total interruptible stored water available for diversion in Gulf Coast, Lakeside and Pierce Ranch agricultural operations under Normal Water Supply Conditions

First Crop Season		Second Crop Season	
Combined Storage on March 1 (million acre-feet)	Interruptible Stored Water (acre-feet)*	Combined Storage on July 1 (million acre-feet)	Interruptible Stored Water (acre-feet)*
Below 1.0	0	Below 1.0	0
1.0 to 1.3	121,500 to 202,000**	1.0 to 1.55	46,000 to 59,500**
1.3 or above	202,000	1.55 or above	76,500
Anytime cutoff* if combined storage drops to or below 900,000 acre-feet		Anytime cutoff* if combined storage drops to or below 900,000 acre-feet	

* Non-Garwood.

** For combined storage within the specified ranges, the interruptible stored water supply available follows a linear scale between the values shown.

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Less Severe Drought Conditions

Less Severe Drought Conditions occur when the combined storage of lakes Travis and Buchanan is below 1.6 million acre-feet on March 1 or July 1 and the cumulative three-month inflows total less than 50,000 acre-feet, or the combined storage is below 1.4 million acre-feet on March 1 or July 1 and the cumulative three-month inflows total less than the 33rd percentile for the three-month period.

Conditions move from Less Severe Drought Conditions to Normal Conditions when the combined storage increases above 1.6 million acre-feet at any time, or the combined storage increases above 1.4 million acre-feet and the cumulative three-month inflows on March 1 or July 1 equal or exceed the median for the three month period.

**Total interruptible stored water available for diversion in Gulf Coast,
Lakeside and Pierce Ranch agricultural operations under Less Severe Drought conditions**

First Crop Season		Second Crop Season	
Combined Storage on March 1 (million acre-feet)	Interruptible Stored Water (acre-feet)*	Combined Storage on July 1 (million acre-feet)	Interruptible Stored Water (acre-feet)*
Below 1.1	0	Below 1.1	0
1.1 to 1.199	100,000	1.1 to 1.399	46,000
1.2 to 1.299	115,000	1.4 to 1.599	55,000
1.3 to 1.399	130,000		
1.4 to 1.499	145,000		
1.5 to 1.599	155,000		
Anytime cutoff* if combined storage drops to or below 950,000 acre-feet		Anytime cutoff* if combined storage drops to or below 950,000 acre-feet	

* Non-Garwood

Extraordinary Drought Conditions

Under Extraordinary Drought Conditions, no interruptible stored water is available for diversion in Gulf Coast, Lakeside and Pierce Ranch agricultural operations. Extraordinary Drought Conditions occur when combined storage is below 1.3 million acre-feet on the March 1 or July 1 evaluation date, the drought has lasted at least 24 months, and inflows to lakes Buchanan and Travis since the start of the drought are worse than inflows in the historic 1947-1957 drought.

Once combined storage increases above 1.3 million acre-feet, at any time, the conditions moves from Extraordinary Drought to Less Severe Drought unless the criteria for exiting Less Severe Drought are also met.

Look-Ahead Test

If the LCRA Board determines that combined storage would drop below 600,000 acre-feet in the next 12 months or below 900,000 acre-feet in the upcoming crop season, LCRA will not supply interruptible stored water in the upcoming crop season, except to the Garwood division.

Rules for Supplying Water for First and Second Crop

- If interruptible stored water is not supplied for first crop, interruptible stored water also is cut off for second crop.
- If interruptible stored water is cut off and combined storage in lakes Travis and Buchanan is less than 1.3 million acre-feet, all run-of-river water that originates above Mansfield Dam also is cut off. If combined storage is 1.3 million acre-feet or higher, any run-of-river water that originates upstream and is passed through is limited to the amount needed to finish the crop.
- If the interruptible stored water supply amount for first crop is reached in a year in which there is interruptible stored water available for second crop, all or a portion of the second crop allocation can be used to finish first crop.
- If the interruptible stored water supply amount for first crop is reached in a year in which there is no interruptible stored water available for second crop, the interruptible stored water supply for first crop will be cut off in the middle of the crop season. The first crop may be completed by a combination of available run-of-river water, reduced water demands to complete first crop when no second crop is expected or alternative sources of supply.