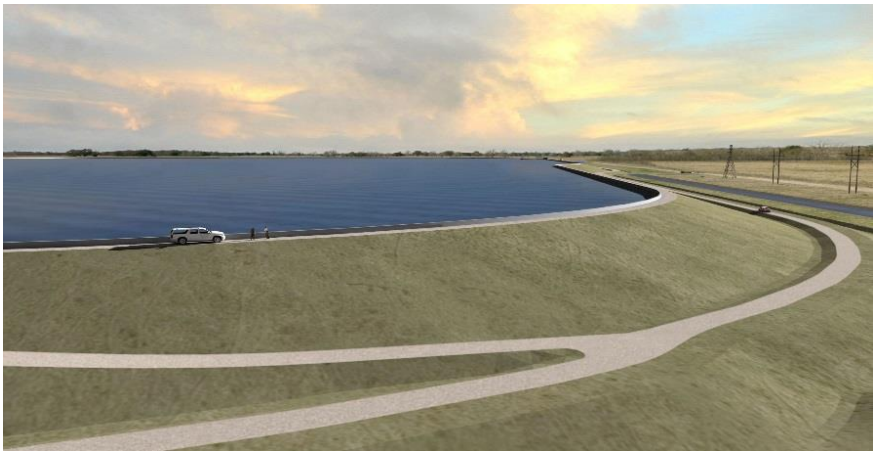
Arbuckle Reservoir

Lower Colorado River Authority is building the first significant new water supply reservoir in the lower Colorado River basin in decades. The Arbuckle Reservoir, formerly known as the Lane City Reservoir, is on 1,100 acres of land off the main channel of the Colorado River in Wharton County near the Texas Gulf Coast.

The reservoir will increase the region's water supply and will be capable of storing 40,000 acre-feet of water at a time, or more than lakes Marble Falls, Austin and Lady Bird combined.

The amount of water in the reservoir will fluctuate as water is pumped from the Colorado River during ample flow periods and stored until is needed by nearby customers.

LCRA expects the reservoir to begin operating in early 2019.



A 3-D rendering of the Arbuckle Reservoir.

Benefits of the new reservoir

The new reservoir will:

- Benefit the entire basin by reducing the amount of water released from the Highland Lakes to serve downstream demands, including industrial and agricultural customers.
- Add up to 90,000 acre-feet per year to the region's water supply. Water in the reservoir can be used and the reservoir refilled multiple times per year.
- Allow LCRA to capture and store significant amounts of water downstream of the Highland Lakes for the first time.
- Improve the reliability of water for agriculture and reduce the chance that interruptible water will be cut back or cut off.
- Increase LCRA's operational flexibility by making managed releases closer to Matagorda Bay possible. About 20 percent of the water released from the Highland Lakes is lost to evaporation and seepage in the on average seven-day transit to Matagorda County.

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Capacity: 40,000 acre-feet, to be filled and refilled multiple times during the year.

Addition to region's water supply: Up to 90,000 acre-feet per year.

Circumference of completed reservoir: About 5 miles. The reservoir will be about 2 miles across and a mile wide.

Impact to local economy: >$12 million in wages and local contracts through spring 2017.

Project timeline

January 2012: LCRA Board of Directors sets goal of adding 100,000 acre-feet to water supply by 2017.

August 2012: LCRA Board authorizes reservoir project.

September 2014: Texas Water Development Board approves $255 million in financing to fund the project. LCRA Board approves Phase 2 of the project, authorizing construction.

December 2014: LCRA breaks ground on the new reservoir.

November 2015: LCRA Board selects Phillips & Jordan as the project general construction contractor.

January 2015: Construction begins.

Early 2019: Reservoir projected to begin operating.

July 2018

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Arbuckle Reservoir

Reservoir facts

The reservoir will include:

- Five miles of embankment with soil cement steps to prevent erosion from waves and wind. The embankment will be 350 feet wide — from toe to toe — and 45 feet tall. Much of the soil for the soil cement was taken from the site.
- Three-foot-tall concrete parapets at the top of the embankment to prevent the reservoir's waves from topping the dam during storms.
- Chimney drains in the center of the embankment to shed water that may seep in.
- Turf on the embankment's exterior slope.
- Multiple large gates to accommodate flows in and out of the reservoir.
- A riverside operation that uses LCRA industrial-sized irrigation pumps and several 50-inch diameter pipes to pump in river water.

A truck waters down the sides of the new reservoir, which is strengthened with soil cement, during construction in 2017.

Custom-built concrete parapets along the top of the embankment will prevent wave action that could damage the reservoir.

Since the reservoir will be a dynamic water operation that will filled and drained frequently, it will not be available for recreation such as boating or swimming.

Why build the new reservoir downstream?

- To take advantage of the wetter climate in the lower basin.
- To capture and store runoff generated by rain that falls downstream of Lake Travis, including in the Austin area.
- To make the entire water supply system more efficient by allowing LCRA to capture water released from the Highland Lakes for downstream customers, but no longer needed by the time it travels downstream because of a change in conditions.

In November 2017, the LCRA Board of Directors renamed the reservoir the Arbuckle Reservoir in honor of former Director J. Scott Arbuckle.