

September 2022

# MONTHLY PROGRESS REPORT



BOIS  
D'ARC  
LAKE

Bois d'Arc Lake is located northeast of Bonham in Fannin County. Project construction began on the 16,641-acre reservoir in May 2018. The lake and other projects will be able to initially treat and deliver up to 70 million gallons of water daily, with an anticipated start date of spring 2023. This report provides a monthly recap of construction progress and accomplishments.

## Project Overview

### Dam and Reservoir

Construction included the preparation and building of a 2-mile-long dam embankment, service spillway and raw water intake.

- The Bois d'Arc Lake earthen embankment, soil cement steps and spillway construction are finished.
- The electric components of the dam were powered up last month, and the dam is now substantially complete.

### FM 897 and County Roads

Around 11 miles of county and state roads and bridges in Fannin County were improved or constructed.

- FM 897 and all county roads are open to traffic.

### Mitigation

Improvements were made to more than 17,000 acres to mitigate for loss of habitat and impacts to local streams from construction of the lake.

- Crews completed all tree plantings, and efforts have shifted to full-time maintenance and monitoring

### Leonard Water Treatment Plant

Construction includes a storage reservoir and five-step water treatment plant.

- Work continues across the site, with crews paving in many locations.
- Various pumps and systems are being tested, and others will be connected and tested in the coming months.

### Raw Water Pump Station and Pipeline

These will pump water out of the reservoir and carry it 35 miles to the new treatment plant.

- Crews are restoring the last areas above the pipeline.
- Pumps and motors are installed at the pump station, and workers are beginning to power up and test different elements. Substantial completion is anticipated this fall.

### Treated Water Pump Station and Pipeline

A pump station and 25 miles of new pipe will transport the treated water to the existing NTMWD regional water system.

- All of the treated water pipeline is installed except a small tunnel portion under a creek.
- The pump station's electrical room structure is completed and electrical equipment is in place. Crews started installing several of the pumps in the High Service Pump Station.

### Boat Ramp Areas and Lake Operations Center

NTMWD built three public boat ramps and a Lake Operations Center for administrative operations and recreational and educational activities.

- The Lake Operations Center building and facilities are completed and fully occupied by NTMWD Staff. A floating dock house is the last component of this project to be completed as water levels rise.
- While all three boat ramps and their parking lot areas are completed, they remain closed to the public until the reservoir is open to recreation.

## Dam Is Complete, Pump Station Startup Underway

The Bois d'Arc Lake dam is now considered substantially complete as of August 26. Construction crews connected power to the system that operates the gates to release water back to Bois d'Arc Creek. This was the last of many electrical elements finished at the dam, including power for the intake tower's gates and bridge crane.

North Texas Municipal Water District (NTMWD) operators have been trained to operate the gates; much of that work will be handled remotely from the Leonard Water Treatment Plant. Freese and Nichols worked closely with NTMWD to ensure a smooth startup and meet all contractual requirements.

Now that local transformers have been powered up, various electrical components of the Raw Water Pump Station (RWPS) are being energized and individually tested. Once all the smaller, individual pieces are tested and adjusted, the team will energize the entire station and be ready to pump water to the terminal storage reservoir at the Leonard Water Treatment Plant. The goal is to complete this process yet this fall.

### The dam and RWPS include:

- 17+ miles of electrical cables (some two or three inches thick)
- More than 3.5 miles of conduit — the pipe that holds and supports electrical wire
- Currently three (and eventually nine) 11-by-8-foot-tall pumps, each able to transmit almost 35,000 gallons of water per minute

Once the RWPS is energized, crews will pump some water to the Leonard Water Treatment Plant, where it will be used to test various components of the water treatment process.



*The completed Bois D'Arc Lake dam and reservoir.*



*One of the massive pumps in the Raw Water Pump Station, ready to move water out for treatment.*



## Spotlight: Oxygenating the Lake

As crews wrapped up efforts at the dam, they also finished another important and unique component—oxygenation for the lake. A team connected and pulled 23,000 total feet of diffuser hoses out into the lake, submerging them beneath the surface. These hoses were then connected to a liquid oxygen tank system that converts the oxygen to gas and then pipes it into the water. Diffusing oxygen in this way will help maintain the quality of the water delivered and support the lake's habitat.



Oxygen is pumped from these tanks and into Bois D'Arc Lake to improve the lake's health.

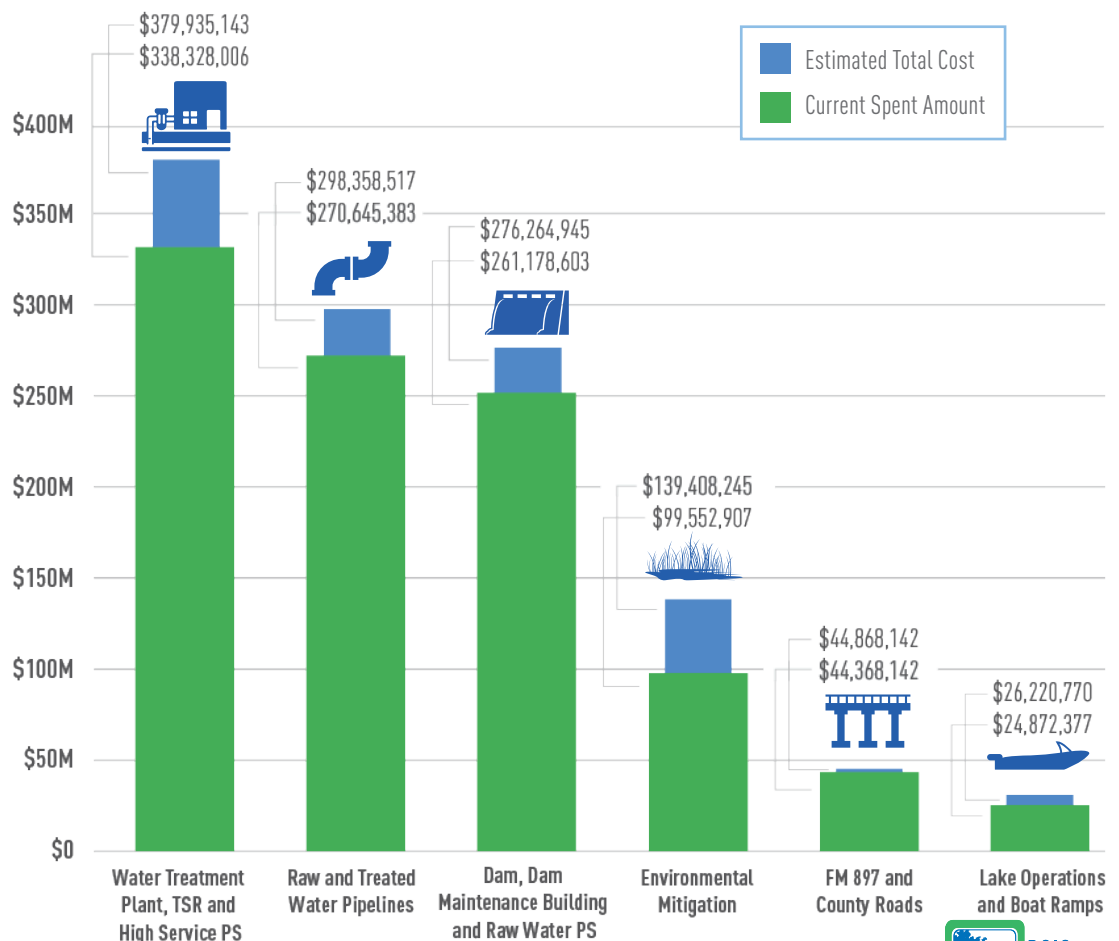
## Current Cost Summary

Bois d'Arc Lake planning, permitting and construction is an important investment for North Texas.

**Bois d'Arc Lake and other projects are estimated to cost approximately \$1.6 billion. These costs will be shared by the up to 80 communities that receive water from NTMWD.**

**The Texas Water Development Board has approved \$1.47 billion for these projects through the State Water Implementation Fund for Texas (SWIFT) program, which is anticipated to save NTMWD and its cities over \$230 million in interest.**

### Budget Status for Bois d'Arc Lake Project – By Each Part Current Amounts Spent Compared with the Estimated Total Costs\*



As of September 1, 2022

\*Figures are for construction costs only; do not include all project costs.

# TIMELINE FOR PROJECTS

