

April 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 starting in 2022. This report provides a monthly recap of construction progress and accomplishments.

## Project Overview

### Dam and Reservoir

Construction includes 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 now finished.
- The lake has filled to the 512-foot elevation level, and water is now right near the bottom of the 23-foot-tall labyrinth weir. The lake still needs to fill around 22 more feet.
- Power at the dam is expected to be connected in the next month.

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

- Crews are completing planting the last of nearly six million trees to establish resilient forests at both the Riverby Ranch and the Upper Bois d'Arc Creek Mitigation sites.

### Leonard Water Treatment Plant

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

- Work continues on internal parts of the different structures, and some treatment chemicals are beginning to be delivered.
- Some smaller 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.

- Workers continue site restoration and grading above the completed pipeline. Final tests are being completed.
- Pumps and motors are completely installed. Final inside and outside touches like tile and asphalt are being finished.

### 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.

- Crews have less than a mile of the pipeline left to install.
- The pump station's electrical room structure is completed, and pumps, pipe and electrical wiring are being installed.

### Boat Ramp Areas and Lake Operations Center

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

- Lake operations center building and facilities are completed and fully occupied by NTMWD staff. Floating dock house will be the last component of this project to be completed as water levels rise.
- Though all three boat ramps and their parking lot areas are completed, they aren't yet open to the public.

# Behind the Scenes of Leonard Water Treatment Plant

## Building from the Ground Up With – Aliza Caraballo

When the Leonard Water Treatment Plant first delivers water, Aliza Caraballo will raise a glass to the team that devoted years of hard work to this project. Caraballo, a North Texas Municipal District (NTMWD) engineer, is project manager for the construction of the Bois d’Arc Lake project. Over the past five years, she has worked on all project components, with the water treatment plant as her major focus and passion.

### Creative Construction

A big part of Caraballo’s role centered around the plant’s detailed design and construction. Building a treatment plant from the ground up provided opportunities to customize it for top performance. At the same time, it posed a unique set of challenges.

The plant was built in an undeveloped area in Fannin County, where there were no existing water or electric utilities available as construction teams built and tested different components. NTMWD’s Engineering and Operations staff and contractors brainstormed different approaches to work around the site’s limitations, down to “drilling and permitting wells to make our own water.” By working creatively and closely with regulators throughout the process, they were able to build the plant in a way that meets both its own needs and offers an infrastructure and electrical backbone for the entire county.

### Key Takeaways

The project “has been a great experience, not just because it is a landmark project, but because it has opened doors to many things we’ve never done before,” Caraballo explained. “The opportunity to collaborate with so many different teams and contractors has been my biggest takeaway.”



*Bois d’Arc Lake Project Manager Aliza Caraballo on the job*

She has also “discovered how important it is to prioritize what needs to be done each day,” as well as the importance of delegation and leaning on the expertise of others. “I have learned so much from the skills and knowledge of others—the fish stocking and mitigation aspects of the project were new to me and absolutely fascinating.”

Moving toward water delivery, team members are now being trained to operate the plant. Caraballo looks forward to seeing the plant in action, knowing it will provide critical water for the region.

“This new plant will help us meet water needs of the quickly growing communities we serve,” Caraballo explained. For someone who has “always wanted to build a new plant from scratch,” she said, this “was the career opportunity of a lifetime.”

## Taking the Helm of a Brand New Plant – With Adam Baugh

The Leonard Water Treatment Plant is sized to meet the needs of our growing region. Situated on 1,100 acres, the new plant will initially be able to deliver 70 million gallons and eventually up to 280 million gallons of drinking water every day.

### Forming a Treatment Team

Keeping a large plant working smoothly is a big responsibility. Leonard Water Plant Supervisor Adam Baugh will lead a team of 15 operators tasked with keeping all aspects of the plant functioning effectively and efficiently.

“This plant will be a workhorse,” said Baugh, a 13-year employee with NTMWD. “It’s unlike any I’ve ever seen.”

Like all of NTMWD’s water treatment plants, the Leonard plant will be staffed 24/7/365. Baugh will supervise team members ranging from several lead operators with decades of experience to newly licensed operators in training.

“We have an extremely wide range of experience on the team,” he said. “A lot of it is finding like-minded individuals who enjoy working in the plant and together.” The state awards its treatment plant licenses by level, with operators able to progress from Class D to Class A based on training and experience. Work at Leonard Water Treatment Plant will provide its newer operators with the years of hands-on experience they need for the higher licenses.

## Taking the Helm of a Brand New Plant can't.

Currently, Baugh's staff is in training to learn all key regulations they will need to use on a regular basis. "The whole team needs to know those like the back of their hand before we begin," Baugh explained.

### Looking Forward

Once the plant is operational, Baugh's team will review gauges, monitor the treatment processes and make adjustments as needed. They are currently taking trips to the Leonard site each week so they can get familiar with the size of the plant, track progress and learn about key facilities. Once the operations building is finished, the team will relocate on-site, and, on a personal note, Baugh (a longtime resident of the Leonard area) will enjoy a much shorter commute.

Construction made considerable progress over the past year, and there is growing excitement for the hand off to Baugh's team to operate and manage this leading-edge water treatment plant, which will help provide safe, reliable drinking water for more than two million North Texans.

Baugh's mission? "The highest quality water possible. All of our current plants meet or exceed the state requirements, and this one will do the same." Baugh's team is enthusiastic and ready for the opportunity to make that mission a reality.



Adam Baugh (fifth from right) with his current operations team

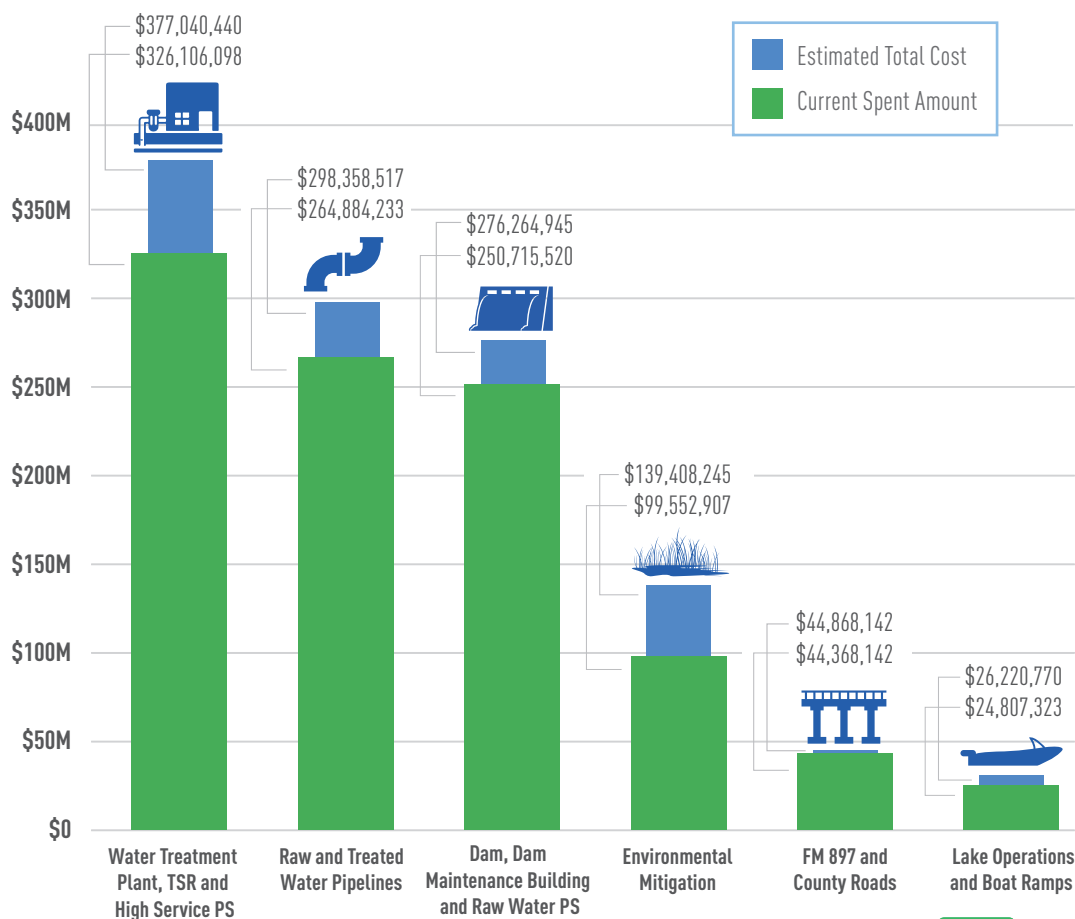
## Current Cost Summary

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 April 1, 2022

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

# TIMELINE FOR PROJECTS

