

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 stripping/clearing soil and vegetation to build a two-mile-long dam embankment and service spillway (to return overflow water to Bois d'Arc Creek).

- Bois d'Arc Creek is now rerouted into the raw water intake structure and through the pipes under the dam before being sent back into the creek on the north side of the dam.
- Crews continue to pour concrete to increase the height of the intake structure, clean up of construction sites from heavy rains and pour concrete for the spillway.

## FM 897 and County Roads

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

- About 1.3 miles of FM 897 is now open from north of Lannius to just south of the future FM 897 bridge.
- The columns and bent caps to hold up the FM 897 bridge are now complete. Crews are pouring the concrete deck for the bridge and nearby roads and installing railings as needed (over 4000 feet so far).

#### 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.

- Tree planting is finished for the season. Crews planted 1.47 million trees.
- Workers have completed restoration or enhancement on approximately 30 miles of streams.

#### **Leonard Water Treatment Plant**

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

• Workers continue to pour concrete and install forms and rebar for all structures across the site.

#### **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 continue pipeline installation in three different locations, and have completed nearly 10 miles of the raw water pipeline.
- Crews have completed the major structure of the pump room, have set around half of the roof beams and begun roof deck installation.

#### **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.

- The treated water pipeline is slated to break ground this summer.
- Crews have started to pour concrete for the pump station.

#### **Boat Ramp Areas and Lake Operations Center**

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

- Crews are working on the structural steel for the Lake Operations Center, setting beams and installing joists.
- Electrical work continues at the Lake Operation Center, and grading is underway across the site.
- Work on all three boat ramps continues.



#### Our crews are working hard to adjust to COVID-19 safety protocols, and doing so with great success.

# Bois d'Arc Lake Reservoir

The latest on Bois d'Arc Lake dam and reservoir:

- Teams filled in the last section of the dam, so water would begin to collect in the future reservoir and be redirected out through the intake structure (which will eventually move water to the pipeline for treatment).
- However, 12 days and 6 total inches of rain followed this key milestone, requiring some of this last section to be removed again so water could pass more easily through the dam and downstream.
- Later in the month, workers cleared up the construction sites, repaired access roads and continued to pour concrete for the spillway (base and walls) and for the rest of the intake structure.



Rainwater left in the bottom of the future Bois d'Arc Lake above the intake tower (right)

# Leonard Water Treatment Plant

Considerable progress has been made at the Leonard Water Treatment Plant this month.

#### **OVERVIEW**

Concrete work continues for all structures.

# MAJOR PROGRESS HAS BEEN MADE ON THESE COMPONENTS:



Recent overview shot of the Leonard Water Treatment Plant

#### **RECENT WORK BY CONSTUCTION CREWS**

## FUTURE ROLE AT THE PLANT

#### Clearwell

Installing forms and rebar on walls, slabs and decks of the clearwell.

Hold clean water after it is treated and before it is pumped out to homes and businesses.

#### **Filters**

Putting in forms and rebar on the walls; starting the first pour for the deck, multiple wall pours and the installation of the piping associated with the filter building.

Remove smaller particles from water as part of the treatment process.

#### **Ozone Treatment**

Installing forms and rebar and multiple pours of concrete for the structure's walls and slabs. Disinfect water from Bois d'Arc Lake.



# Stream, Tree and Stake Stats

Work on Bois d'Arc Lake mitigation sites, by the numbers!

- 1.47 million trees planted this season
- 3.1 million total trees planted
- 17+ miles of restored streams
- 13+ miles of stream reconstruction
- Continued planting of live stakes (black willow, cottonwood and sycamore tree branches) along restored streams to grow into new trees and help reduce erosion.

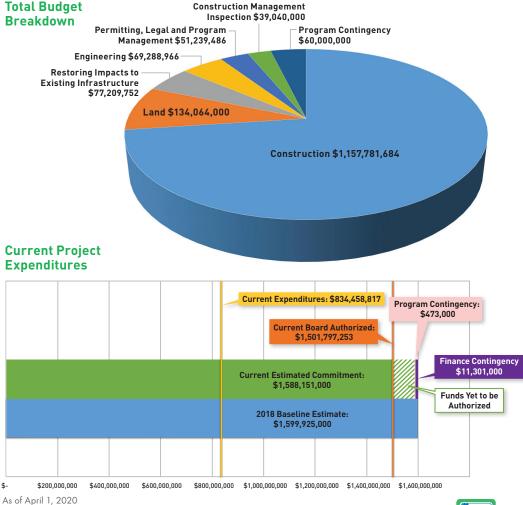


Tree planting crews at Riverby Ranch Mitigation Area

The planning, permitting, designing, land purchasing and constructing of Bois d'Arc Lake and other projects is an important investment for the future of 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 who 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.

This pie chart offers a breakdown of the total budget for the reservoir and other projects, and the bar chart shows current expenditures.



# **TIMELINE FOR PROJECTS**



#### 2003

Planning and Permitting Process Begins

#### **JUNE 2015**

TCEQ Issues State Water Use Permit

#### **FEBRUARY 2018**

Army Corps of Engineers Issues 404 Permit and Record of Decision



#### **NOVEMBER 2018**

Leonard Water Treatment Plant Construction Begins



#### **AUGUST 2018**

Environmental Mitigation Work Begins



#### **MAY 2018**

Roadway/FM 897 Construction Begins



#### **MAY 2018**

Dam and Reservoir Construction Begins



#### **SPRING 2019**

Raw Water Pipeline Construction Begins



#### **FALL 2019**

Boat Ramps and Recreational Facilities Construction Begins



#### **SPRING 2020**

Treated Water Pipeline Construction Begins



# **SUMMER 2020**

Roadway/FM 897 Construction Complete



#### **FALL 2020**

Boat Ramps and Recreational Facilities Complete



#### **FALL 2021**

Leonard Water Treatment Plant Complete



#### **SUMMER 2021**

Raw Water Pipeline Complete



#### **FALL 2020**

Reservoir Impoundment Begins



# **FALL 2020/ WINTER 2021**

Dam Substantially Complete



#### **WINTER 2022**

Treated Water Pipeline Complete



#### **SPRING 2022**

Water Delivery Scheduled to Begin

#### **SPRING 2023**

Environmental Mitigation Complete/Full Monitoring and Maintenance Begins

