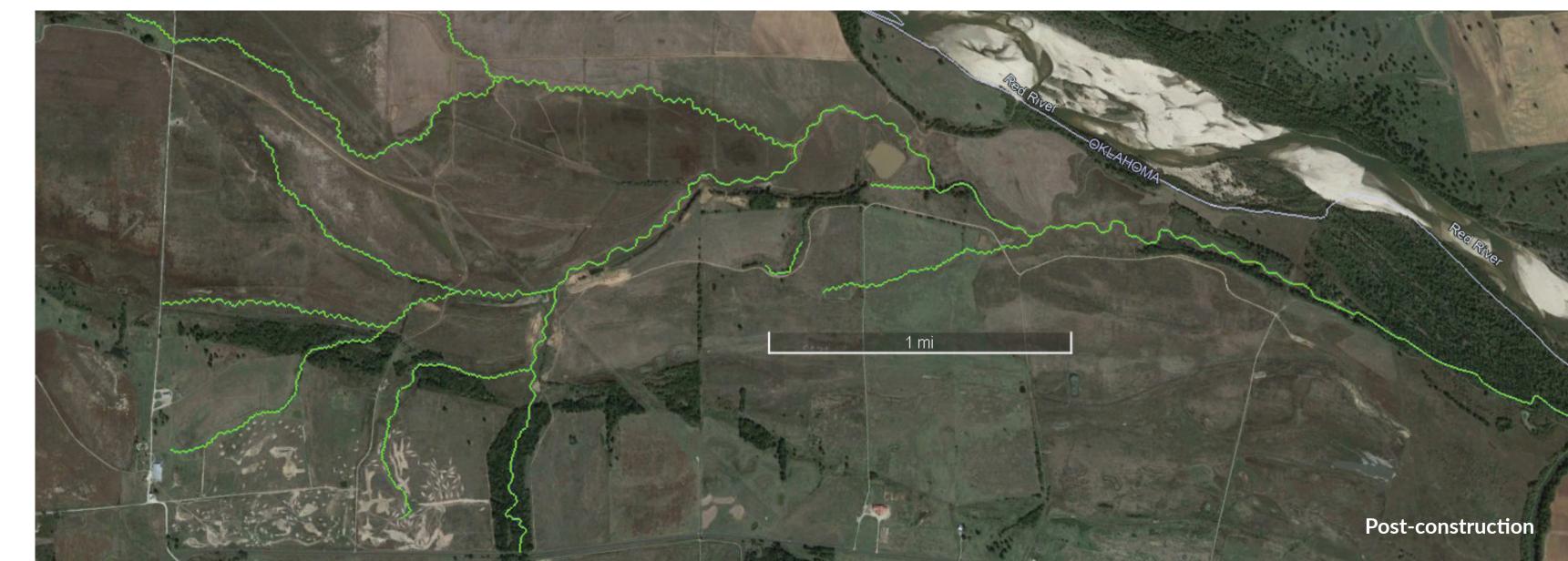


# Bois d'Arc Lake Mitigation Project

A Watershed Scale Ecological Restoration







#### **Project Highlights**

- 8,500 acres of forested, emergent, and scrub-shrub wetlands
- 2,600 acres of upland forest and riparian woodlands
- 3,300 acres of native grassland restoration and enhancement
- 24 miles of stream restoration
- 46 miles of stream enhancement
- 6.5 million trees planted
- 2 times as many bird species have been found on the mitigation site in comparison to the surrounding areas

#### **Project Challenges**

- Design Phase: RES dedicated more than 20 people to the design team.
- Site History: Restoration required the removal of agricultural infrastructure and practices while protecting culturally sensitive areas.
- Unpredictability: Through all stages of the project, the ability to adapt to unforeseeable events or conditions has been key to the site's success.
- Data Collection/Data Management: RES monitors the site five times annually and built a database to manage and calculate data.

### **Project Summary**

In 2022, the North Texas Municipal Water District (NTMWD) completed the construction of a 16,500-acre surface water reservoir in Fannin County, TX to provide critical water services to the 13 cities within the District.

Resource Environmental Solutions, LLC. (RES) was selected to provide design, construction, monitoring, and long-term stewardship of Riverby Ranch in Fannin County, Texas to provide environmental offsets for the reservoir. Having spent over a century in intensive agriculture, Riverby Ranch presents unique challenges and huge ecological potential.

## Cornerstone of the Project

The Willow Branch stream on site acts as a drain for a 15-square mile watershed. When our team first arrived, the entire stream system was eroded down to 20 feet below its original floodplain. In some areas the stream channel had eroded as wide as 60 feet. During the stream and floodplain restoration on Willow Branch, we resurrected more than two miles of abandoned stream channel and adjacent wetlands and restored the natural meandering pattern of the system. This slowed down the water, rehydrated the soil, and provided water for wildlife habitat on site.







