



# WELCOME

Belhouse Drought Preparedness Project  
Public Meeting

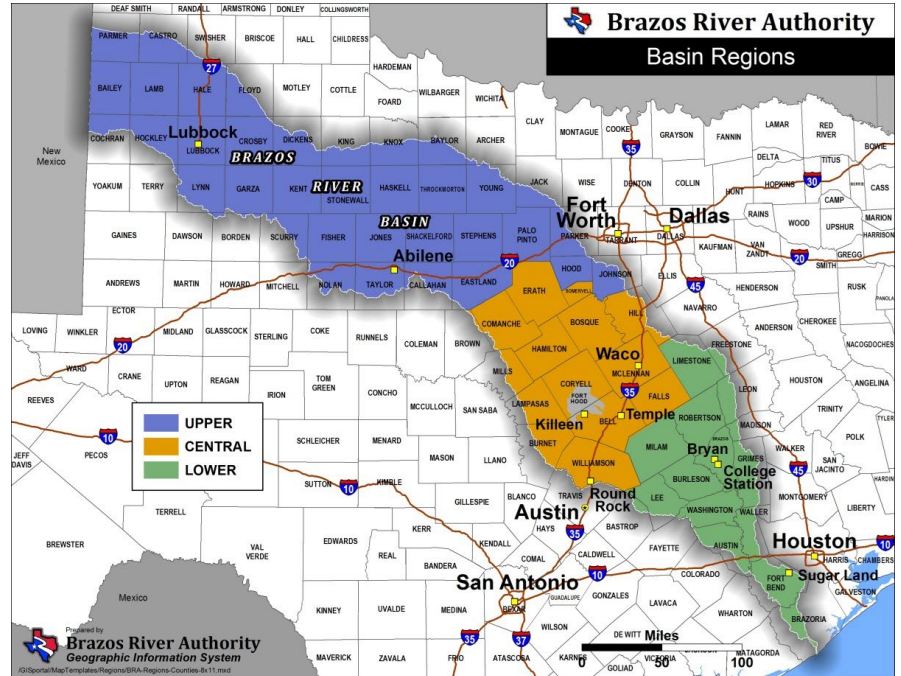


# Mission



The Texas Legislature created the Brazos River Authority (BRA) in 1929, giving the organization responsibility for **42,830 square miles** of the Brazos River basin to **develop and manage water supply**.

As part of its mission from the legislature, the BRA is **developing projects to create drought resiliency in the region**, including the Belhouse Drought Preparedness Project.



BRA basin regions, statewide map.



## BELL COUNTY GROWTH

- Bell County grew 19.5% over the last decade including:
  - Biggest population growth in Nolanville at 30%
  - 19.3% growth for Harker Heights
  - 16.4% growth for Killeen
- Copperas Cove is expected to grow by more than 7,000 people (18%) between 2020-2030.

## STUDENT GROWTH

The Killeen Independent School District is expected to grow by more than 4,600 students between 2018-2028.

## RESIDENTIAL DEVELOPMENT

Approved/under construction residential and apartment development in the region:

- Round Rock - 7,500+
- Georgetown - 6,500+

# Persistent Drought Conditions

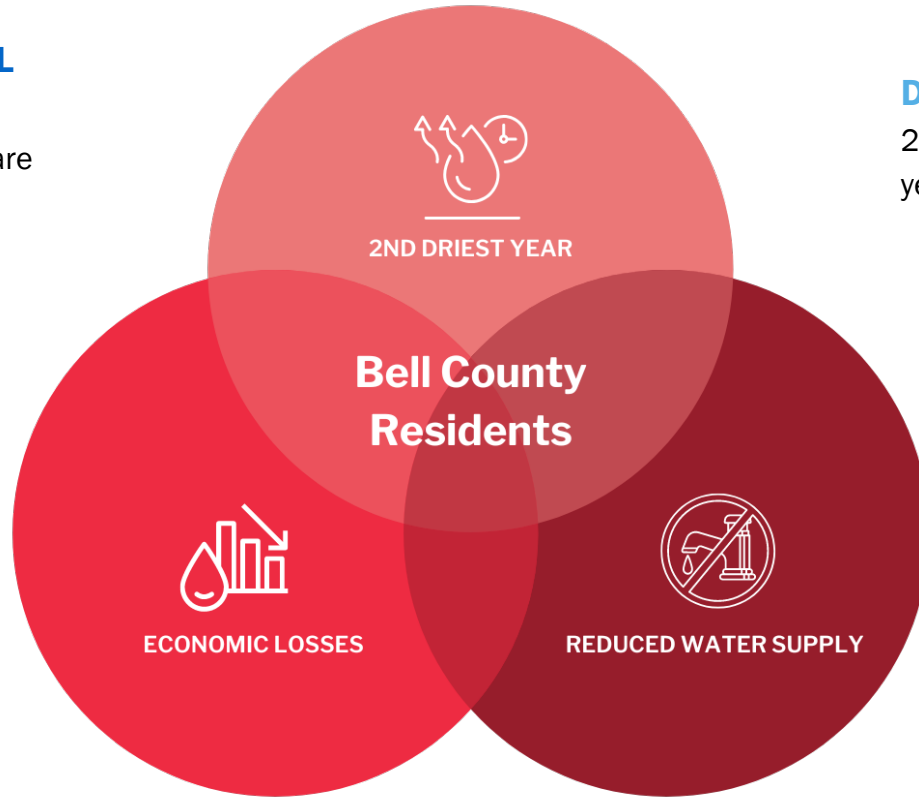


## 300,000+ IMPACTED BELL COUNTY RESIDENTS

100% of Bell County residents are under exceptional or extreme drought conditions (TWDB, Aug. 2022).

## MILLIONS IN ECONOMIC LOSSES

Regional economic losses resulting from drought of record water shortages are estimated to impact total gross domestic product and jobs.



## DRIEST YEAR

2022 has been the 2nd driest year over the past 128 years.

## REDUCED WATER SUPPLIES

**Avg. rainfall in Belton**  
(Jan. 1 – Aug. 1): 20.68 inches

**Total 2022 rainfall in Belton**  
(Jan. 1 – Aug. 1): 8.48 inches



Texas Water Development Board estimates that by 2070:

- Existing water supply is expected to decrease by 18%
  - Causes for decrease: sedimentation in reservoirs, depletion and restrictions of groundwater pumping
- Texas statewide population is projected to increase 73%

## Water Supply Decrease

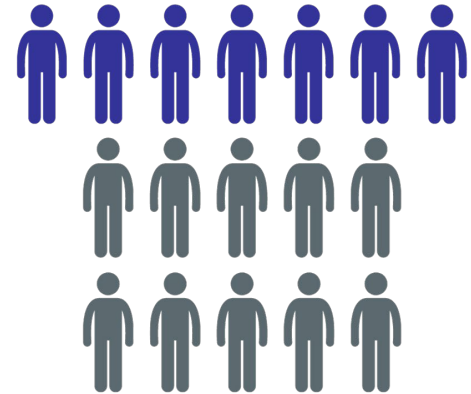


**18%**



**73%**

## Population Increase



# Lake Belton Overview

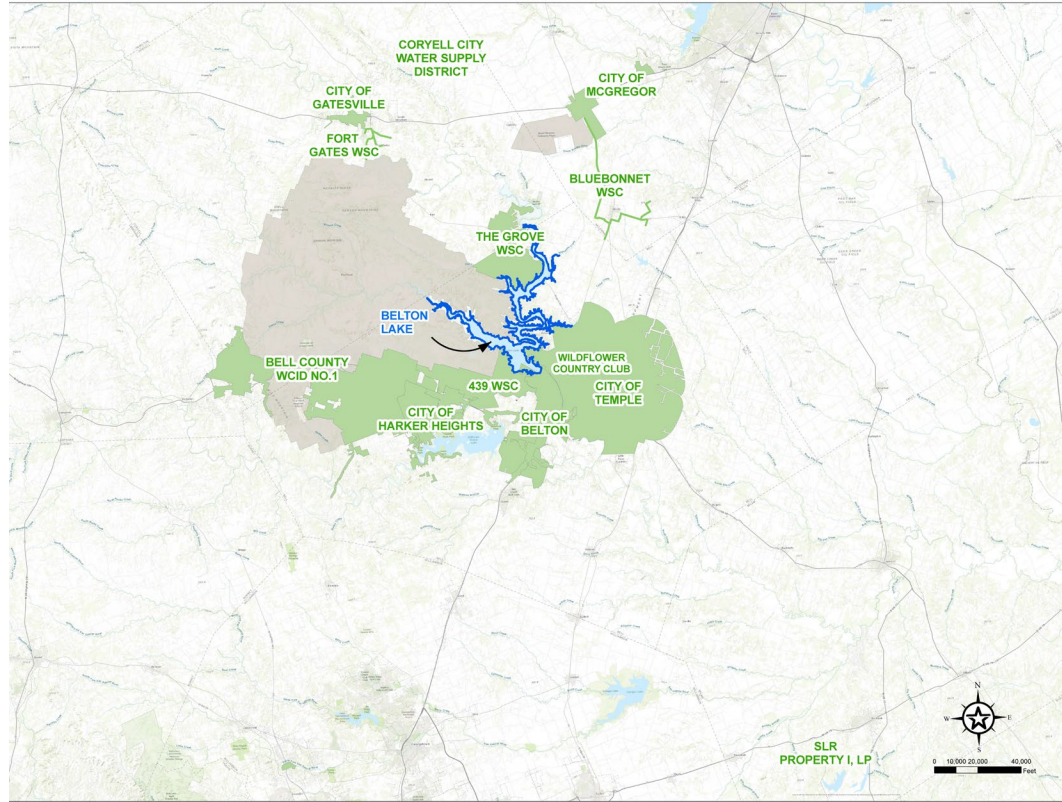


- Developed: 1954
- Managed by: US Army Corps of Engineers (Corps)
- Surface area: 12,385 acres
- Max. depth: 124 ft
- Service area:
  - 439 Water Supply Corp.
  - Bell County WCID
  - City of Belton
  - Bluebonnet Water Supply Corp.
  - City of Harker Heights
  - City of McGregor
  - City of Temple
  - Wildflower Country Club
  - Coryell City Water Supply District
  - Fort Gates Water Supply Corp
  - City of Gatesville
  - The Grove Water Supply Corp.
  - SLR Property I, LP





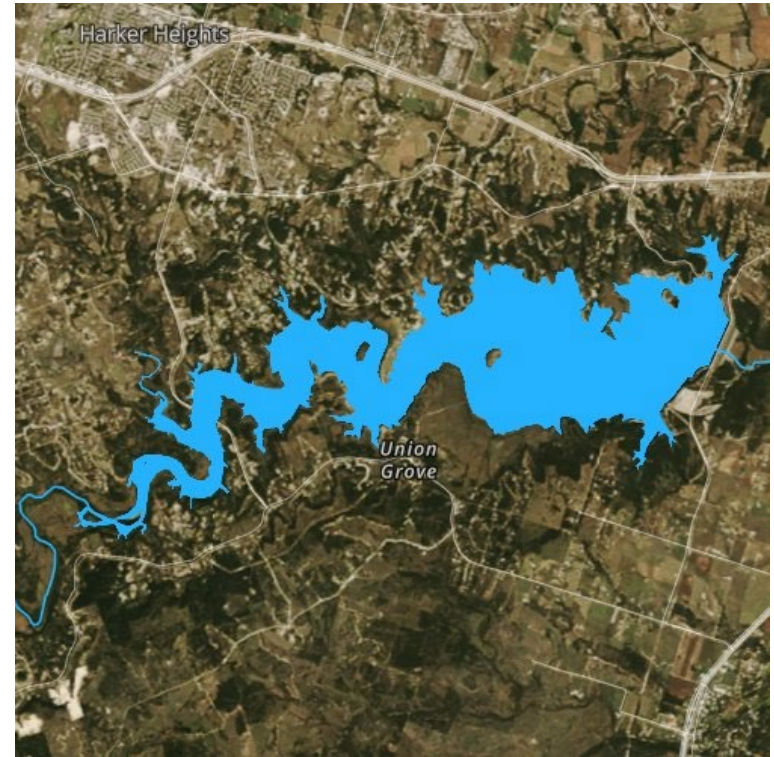
# Lake Belton Customer Service Area



# Stillhouse Hollow Lake Overview

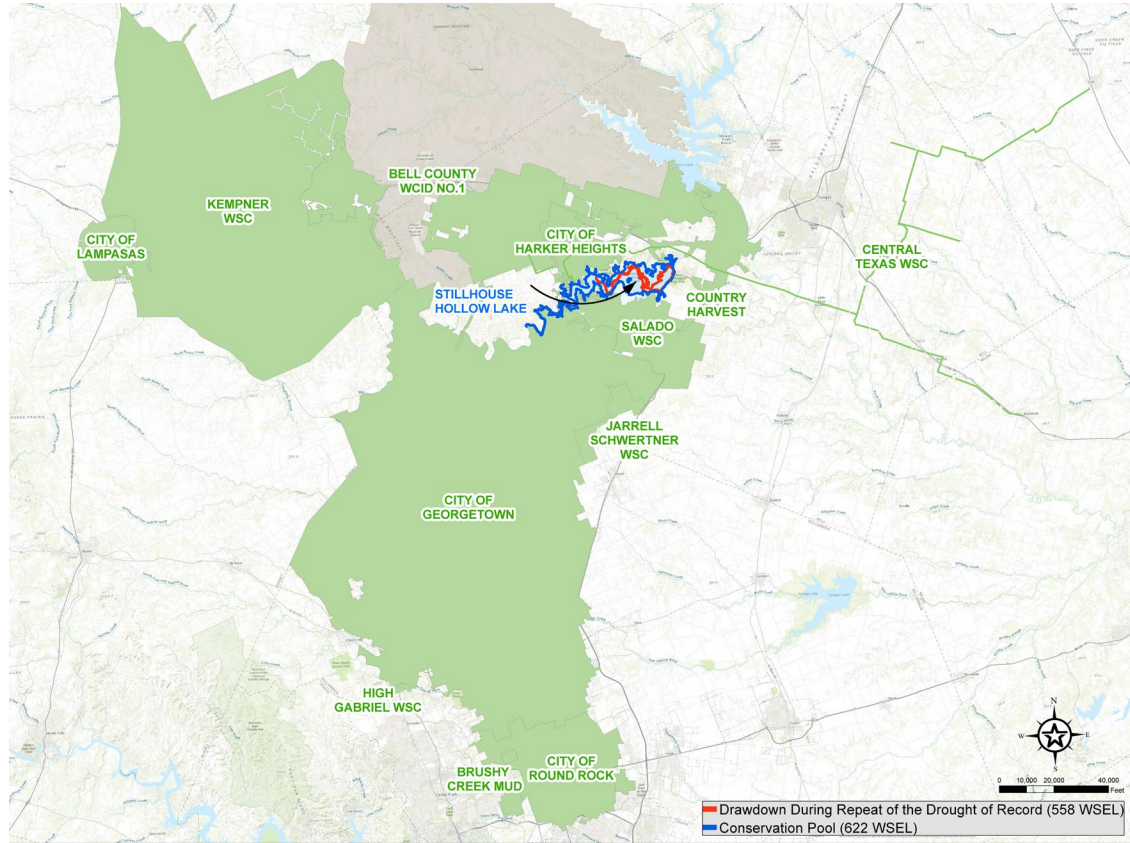


- Developed: 1968
- Managed by: US Army Corps of Engineers (Corps)
- Surface area: 6,429 acres
- Max. depth: 107 ft
- Service area:
  - Country Harvest
  - Bell County WCID
  - City of Harker Heights
  - Kempner Water Supply Corp.
  - Salado Water Supply Corp.
  - Central Texas Water Supply Corp.
  - City of Lampasas
  - Brushy Creek MUD
  - City of Georgetown
  - High Gabriel Water Supply Corp.
  - Jarrell-Schwertner Water Supply Corp.
  - City of Round Rock





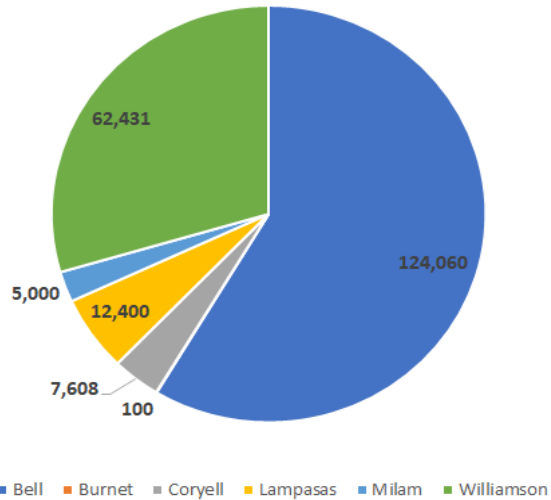
# Stillhouse Hollow Lake Customer Service Area



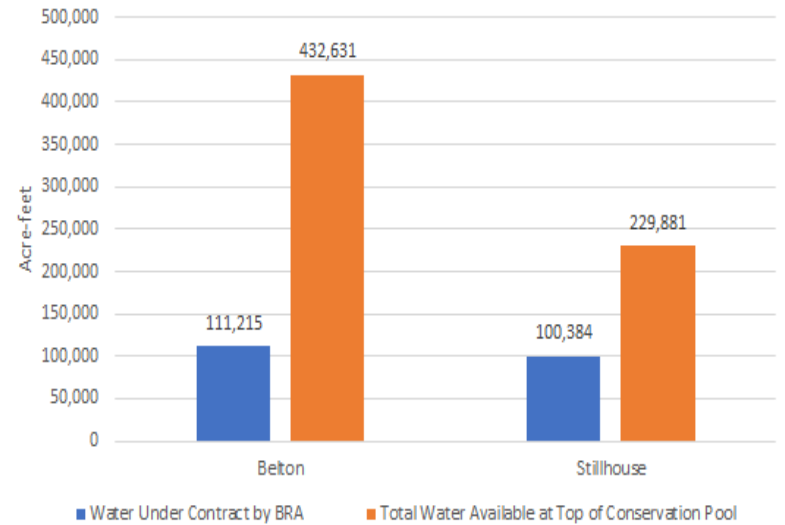
# Serving Water Commitments



## Current BRA Water Contracts by County for Belton and Stillhouse Hollow Lakes (Acre-Feet)



## Water Under Contract vs. Total Available Water for Belton and Stillhouse Hollow Lakes



*No new water contracts will be executed as a result of this project.*

# Do Nothing Approach



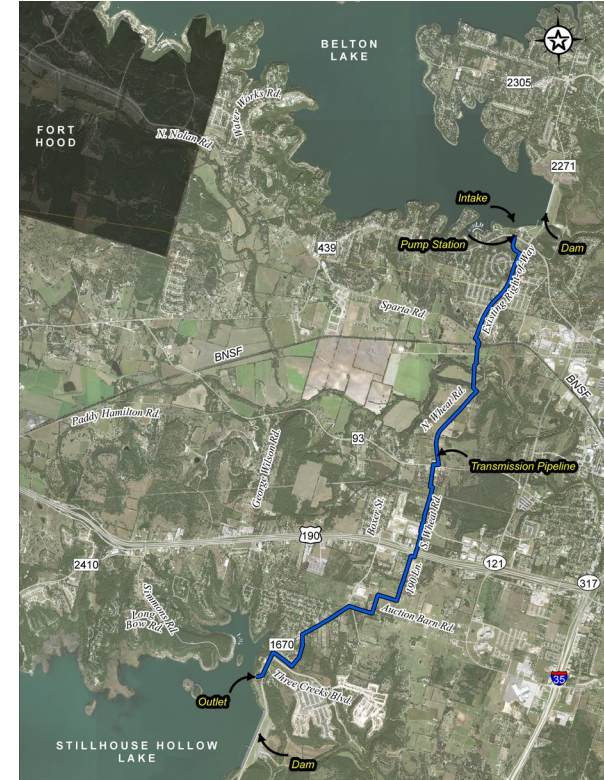
- Impacts to emergency services:
  - Fire department
  - Hospitals/emergency services
- Health impacts to community
- Extensive economic damages:
  - Residents
  - Business owners
- Impacts to Stillhouse Hollow Lake water supply and levels
- Could result in multiple individual pipeline projects
- Losses in:
  - Population and school enrollment
  - Tax revenues
  - Jobs



# Belhouse Drought Preparedness Project Overview



- **Purpose:**
  - Improve reliability and resiliency of regional water supplies
  - Improve drought preparedness
  - Prepare region for continued growth and development
- **Key Details:**
  - Construct a water intake at Belton Lake
  - Build a water pipeline between Belton Lake and Stillhouse Hollow Lake
  - Construct an outlet at Stillhouse Hollow Lake
  - Pipeline will only be used during dry times to meet consumer need
- **Anticipated Construction Start: 2025**





# Location Evaluation Process



The location analysis evaluates impacts to environmental resources, residents and businesses, and recreational uses, economics, visibility, operations and maintenance, easement acquisition, topography, and access to required lake depths.



Environmental Resources



Easements



Topography



Lake Depth



Impacts to Residents/Businesses



Required Acreage



Economics



Visibility



Recreation



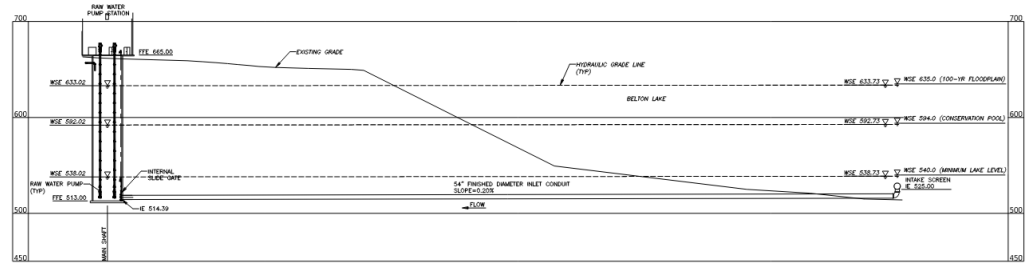
Maintenance



# Intake Location Evaluation



- Began with nine (9) conceptual locations
- Intake analysis factors:
  - Impacts to residents
  - Right-of-way impacts
  - Coordination with and approval of Corps
  - Recreational impacts
  - Maintenance access
  - Visibility
  - Environmental resources
- Preferred design:
  - Intake 8
  - Conveys water to the pump station via inlet conduit
  - Single level screened intake in Belton Lake
  - 100 ft. deep (at normal lake level)



# Pump Station



- Location
  - 2.5-acre site in Belton Lake View Park
  - Adjacent to Corps office
- Details:
  - 9,000 sq. ft. building
  - Two entrance driveways
  - No adjacent residential homes
  - No environmental issues
  - Infrequently operated

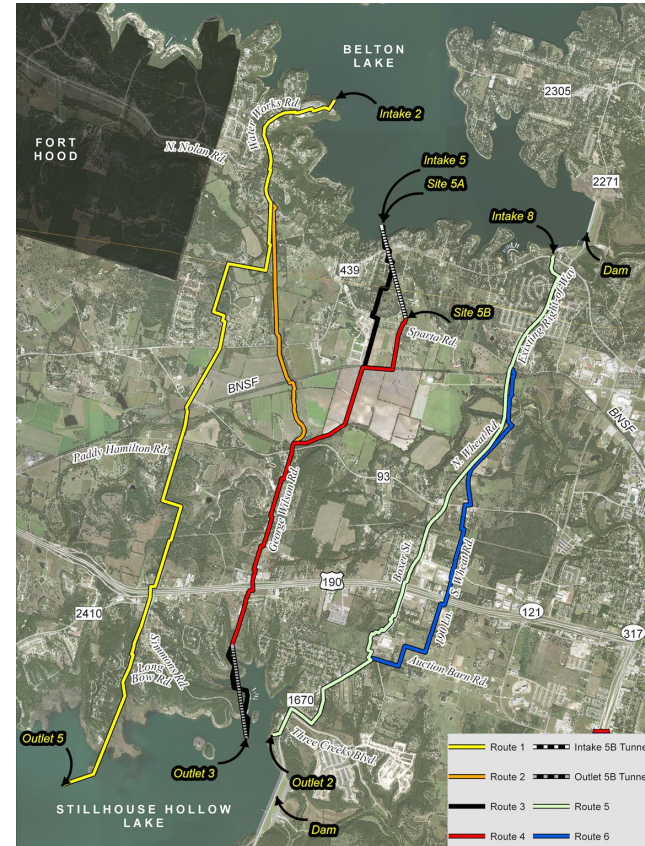


Architect rendering of proposed water intake facility at Lake Belton (facing north).

# Pipeline Alignment



- **Route analysis factors:**
  - Local development
  - Land acquisition impacts
  - Coordination with and approval of Corps
  - Right-of-way access
  - Cost
  - Construction impacts
  - Topography
  - Maintenance access
- **Preferred pipeline route:**
  - Route 6





# Pipeline Overview

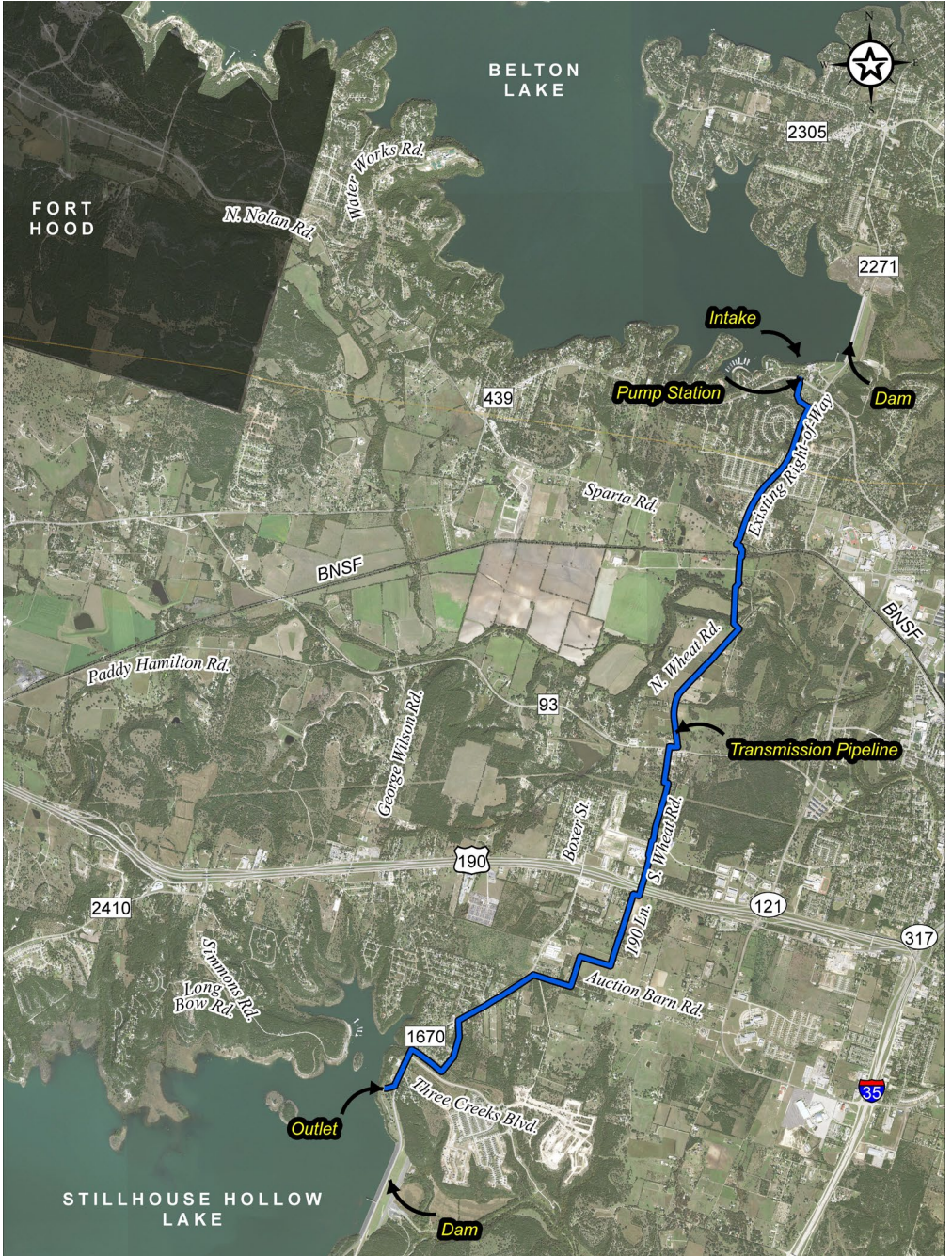


- **Details:**
  - 48-inch diameter transmission pipeline
  - 10-14 ft. deep
- **Open-cut construction process:**
  - Use of open trench excavation to facilitate the installation of new structures or systems.
  - Excavation is then back filled
  - Surface restored
- **Benefits of construction method:**
  - Cost-effective
  - Ease of access for maintenance



(Left) open-cut construction and placement of pipeline; (Middle) back fill; and (Right) restored surface

# Preferred Pipeline Route

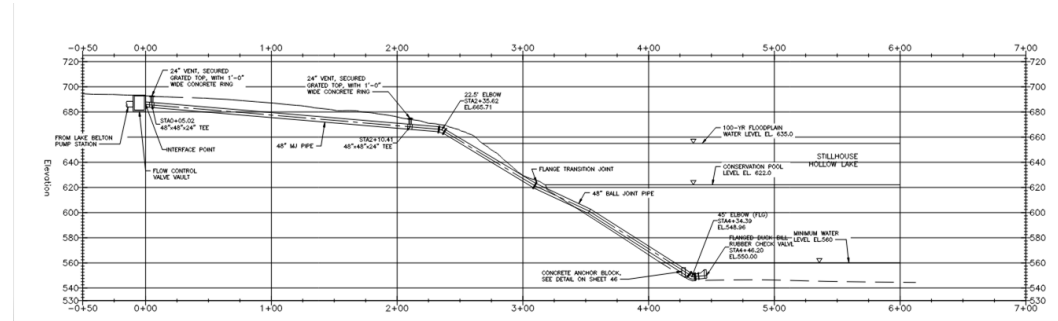




# Outlet Locations Evaluation



- Began with five (5) outlet options
- Outlet analysis factors:
  - Coordination with and approval of Corps
  - Land use
  - Access and maintenance
  - Water quality
  - Distance from shoreline
- Preferred outlet location:
  - Outlet 2
  - North of dam adjacent to Overlook Park
  - Underwater discharge





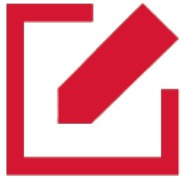
## Belhouse Drought Preparedness Project Timeline



# Stay Involved



All feedback must be provided by **Wednesday, October 5, 2022** to be included in the official record.



EMAIL

[belhouse@brazos.org](mailto:belhouse@brazos.org)



MAIL

4600 Cobbs Drive  
Waco, TX 76710



ONLINE

[www.brazos.org/Belhouse](http://www.brazos.org/Belhouse)



VERBAL COMMENT BY  
VOICEMAIL  
888-922-6272

For general questions about the project or presentation, please contact BRA Public Information Office at (888) 922-6272. The public may email at any time in the project development process to ask questions about the project.