



Winter 2023 Newsletter

What is the Western Intake Partnership?

The Western Intake Partnership (WIP) was formed in 2014 between Chatham County, City of Durham, Town of Pittsboro and Orange Water and Sewer Authority to explore and develop a regional solution to meet their long-term water supply needs. The Triangle region is growing quickly, and Jordan Lake is a vital part of the region's water supply. The Partnership is committed to supporting our communities and the quality of life by continuing to provide reliable, high-quality drinking water to the Triangle region.

The Partnership understands that Jordan Lake is a significant regional natural resource and is committed to environmental stewardship.

Jordan Lake Water Supply Project

The Partners plan to withdraw and treat water from Jordan Lake which has been allocated to them by the North Carolina Environmental Management Commission. That water would then be delivered to our communities' water systems.

The Project components include:



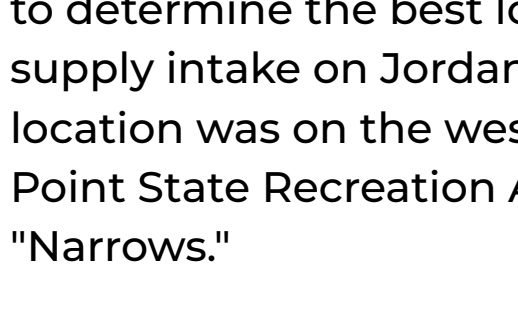
Water Intake and Treatment Facility

A new raw water intake and pump station on the west side of Jordan Lake, a regional water treatment plant on property currently owned by one of our member utilities, and a water supply pipeline connecting them.



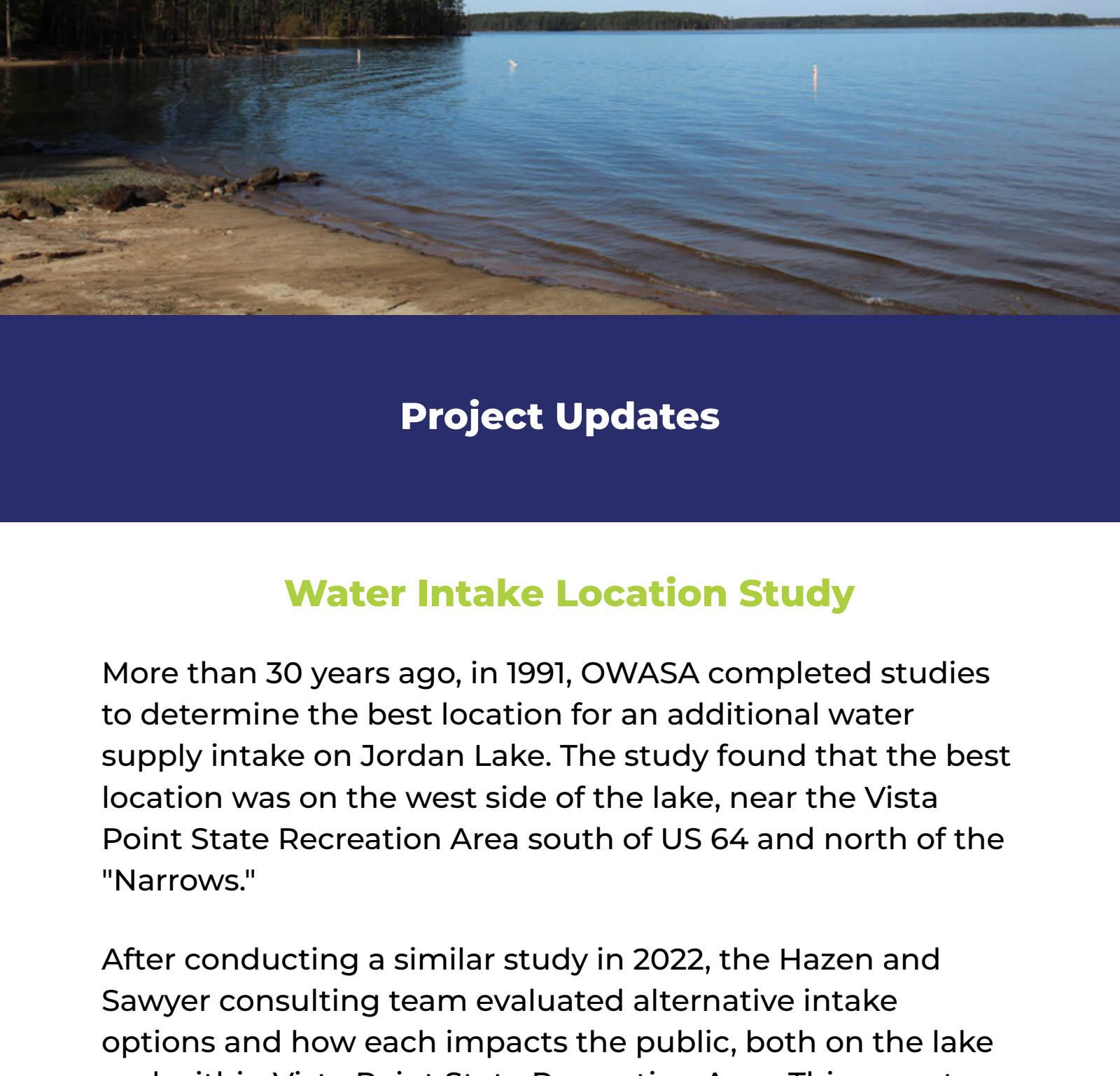
Drinking Water Supply Pipelines

Regional water supply pipelines to deliver treated water to our communities.



Booster Pumping Stations

Facilities that maintain water pressure and movement through the water supply pipelines and connect them to existing Partner water distribution systems.



Project Updates

Water Intake Location Study

More than 30 years ago, in 1991, OWASA completed studies to determine the best location for an additional water supply intake on Jordan Lake. The study found that the best location was on the west side of the lake, near the Vista Point State Recreation Area south of US 64 and north of the "Narrows."

After conducting a similar study in 2022, the Hazen and Sawyer consulting team evaluated alternative intake options and how each impacts the public, both on the lake and within Vista Point State Recreation Area. This recent study had access to additional information not part of the original 1991 study, including lake modeling and long-term water quality trends in this part of Jordan Lake.

With the updated information, Hazen and Sawyer confirmed that the location determined in 1991 is still the best option. Current bathymetric survey work has revealed that the lake depth and contours have not changed significantly since that first study.

A water intake located near the Vista Point State Recreation Area allows for:

- Access to deep water near the shoreline
- Minimizing the impact of construction methods to connect the intake site to the raw water pump station
- Better water quality than found in other locations on the lake

No other site alternative provides this combination of benefits. The Western Intake Partnership will continue coordinating with the appropriate North Carolina and Federal agencies about the water intake location and any potential impacts

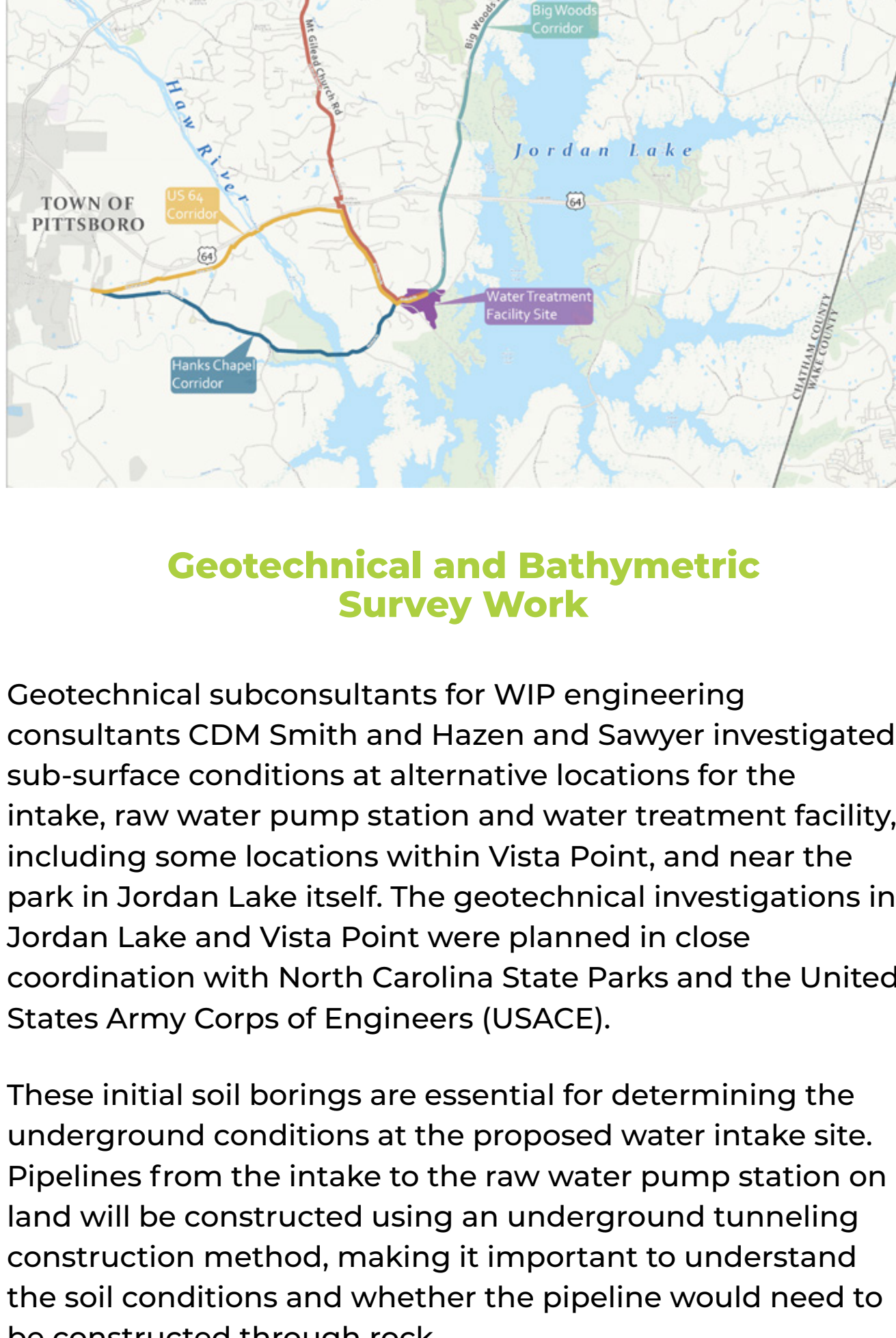
Finished Water Transmission Route Alternatives Analysis

The Hazen and Sawyer consulting team is performing modeling for each of the Partner water systems to determine how each Partner system would best receive WIP water. Hazen and Sawyer then compared different route alternatives for the main pipelines to transmit water from the WIP water treatment plant to the various Partners' systems.

During this process, Hazen and Sawyer looked at:

- Storage options
- Pumping alternatives
- Operational preferences

This analysis will help determine the most efficient and effective way of transferring water to the Partners' existing water systems. The water transmission route alternatives map is shown below.



Geotechnical and Bathymetric Survey Work

Geotechnical subconsultants for WIP engineering consultants CDM Smith and Hazen and Sawyer investigated sub-surface conditions at alternative locations for the intake, raw water pump station and water treatment facility, including some locations within Vista Point, and near the park in Jordan Lake itself. The geotechnical investigations in Jordan Lake and Vista Point were planned in close coordination with North Carolina State Parks and the United States Army Corps of Engineers (USACE).

These initial soil borings are essential for determining the underground conditions at the proposed water intake site. Pipelines from the intake to the raw water pump station on land will be constructed using an underground tunneling construction method, making it important to understand the soil conditions and whether the pipeline would need to be constructed through rock.

The bores will contain soil samples that will help the engineering team understand the following:

- The methods that can be used to construct the raw water intake supply pipelines and raw water pump station
- The best timing for construction
- The cost of the system

Additionally, a bathymetric survey was completed near Vista Point to examine the lake's depth. This survey included the deepest part of the lake where the intake will be located.



Public Outreach Activities

Public Open House

On January 10, 2023, the WIP held a public open house at the Chatham Community Library for community members to learn about the Jordan Lake Water Supply Project. Thank you to all who came out for the WIP public open house. To view the open house materials, participate in our community survey, or view the Project video, please visit the [Get Involved](#) page on the WIP website.



Partnership Website

Looking for more information? Visit the [Western Intake Partnership website](#) today!

Stay in Touch

Creating an environment that promotes, supports, and advances equity and inclusion is vital to the success of the Western Intake Partnership. We are committed to keeping you informed every step of the way.

Questions or Comments?

You can visit the [Contact Us page](#) of our website, call 919-379-5774, or email us at contact@westernintakepartnership.com.