



We come to the Jordan Lake Water Supply Project Open House!

Western Intake Partnership

CITY OF DURHAM

The City of Durham is dedicated to providing high quality drinking water to our customers and protecting the environment through effective water reclamation.



The Town of Pittsboro is responsible to the community we serve while producing safe and pleasant drinking water, utilizing all resources wisely and working for the greater good of those we serve.

Neet the Partners



Chatham County's mission is to protect and manage our water supply and to provide the highest possible quality of water and service.



ORANGE WATER AND SEWER AUTHORITY

Orange Water and Sewer Authority is **Carrboro-Chapel** Hill's not-for-profit public service agency, delivering high-quality water, wastewater, and reclaimed water services.



Legend States Treatment Facility



Water Supply Pipelines



Water Supply

Project Overview

Current Use

Jordan Lake is a reservoir west of Raleigh and south of Durham in Chatham County. It currently supplies water to surrounding communities. The lake is a popular place for recreation, and it provides fish and wildlife habitats. Operations at Jordan Lake also help control flooding and meet downstream water needs. All this makes the lake a vital regional resource.

Growth in the Region

The Triangle region is growing. To support this growth, the WIP aims to secure a long-term water supply for the City of Durham, Town of Pittsboro, Chatham County, and OWASA customers by providing access to their existing State-authorized water supply allocations in Jordan Lake.

Planning for the Future

This project will provide access to the lake's water supply while protecting its other uses and natural resources – all to benefit our communities. Water will be withdrawn from the western side of Jordan Lake. This water will then be treated and connected to regional distribution systems.

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Project Components

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.



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Booster Pumping Stations

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



The project is planned to proceed in three phases. We are aiming to make the facilities operational by 2031. Our anticipated schedule is shown below and subject to change.



Planning & Permitting 2020-2024

WE ARE HERE



Design & Bidding 2024-2027





Construction & Start-Up/ Commissioning 2027-2031

Water Supply Need

The purpose of the Jordan Lake Water Supply Project is to achieve the following objectives:

- Access water from Jordan Lake which was allocated to the WIP Partners for water supply by the State of North Carolina.
- Meet the projected water demand in the WIP Partners' service areas by increasing raw water supply and treatment capacity.
- Improve regional water supply reliability and resiliency by increasing the capacity to withdraw state-allocated water supply from a new raw water intake structure on the west side of Jordan Lake.
- Provide high quality drinking water that meets the requirements of the Safe Drinking Water Act and the North Carolina Drinking Water Act with a state-of-the art water treatment facility that is designed to treat for contaminants of emerging concern including 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS).

North Carolina Water Resources Division (NCDWR), 2017. Round 4: Jordan Lake Water Supply Allocation Recommendations. Prepared by NCDWR for the North Carolina Environmental Management Commission. DWR: Local Water Supply Planning (ncwater.org)



JORDAN LAKE WATER SUPPLY ALLOCATIONS

- Western Intake Partners
- Cary-Apex
- Others
- Unallocated



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The Water Intake and Treatment Facility is being designed to meet Partner needs through 2050, but will ensure that it can be expanded to meet needs through 2070 and beyond. Pilot testing is being conducted to develop a state-of-the-art technology to treat for contaminants of emerging concern. The Facility is made up of several components, including:

A new raw water intake and pump station on the west side of Jordan Lake.

Water Intake and Treatment Facility





A regional water treatment plant.

State-of-the-Art Facility

The proposed project would be a state-of-theart Water Treatment Facility. In addition to the structures for the treatment process (intake station, pump station, pipeline and treatment plant), other components would include:

- Administration Building
- Maintenance Building
- Electrical building and generators for backup power
- Storage tanks
- Lighting, parking, and fencing



Fown of Cary, State of North Carolina DOT, Esri, HERE, Garmin, INCREMENT P, NGA, USGS Map of the facility property at the intersection of Seaforth Road and North Pea Ridge Road

Water Intake and **Treatment Facility**



Vegetation Buffer Plans The Facility design will seek to minimize impacts on neighbors and the state park with vegetated buffers. You can see how these buffers would look over time along North Pea Ridge Road below.







Distance from Roa

Height estimate of existing vegetation to be confirmed

Environmental Approach



Quality Sustainability Transparency Equity Partnership



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Our Approach

The overarching approach to addressing environmental resource concerns is to:

Identify resources with the potential for impact,

Avoid disturbance of resources wherever feasible,

Minimize disturbance when resource impacts cannot be avoided, and

Mitigate for unavoidable impacts.

Wetlands, Streams, Lakes, and Groundwater

- Identify locations, types, and conditions
- Water quality and quantity considerations

- Upland and aquatic species
- Animals and plants

Resources Under Evaluation



Listed Species and their Habitats



People

- Architectural and engineering structures
- Archaeological and historic resources
- Cemeteries and graves
- Recreation, noise and traffic



Environmental Justice Considerations

• Fair treatment and opportunities for meaningful involvement of all people

Environmental Permitting & Approvals

U.S. Army Corps of Engineers/Federal Agencies

- streams or wetlands
- Act (NEPA)
- Compliance with Endangered Species Act
- Compliance with National Historic Preservation Act

State of North Carolina

- NC Division of Water Resources (DWR)
 - » Water Quality Certification
 - » Jordan Lake Water Supply Riparian Buffer
- - » Erosion and Sediment Control Permit
 - Permit for stormwater
 - » NPDES Individual Permit for water treatment facility

Chatham and Durham Counties

- Re-zoning of Water Treatment Facility site
- applicable ordinances



• Two separate easements to occupy federal property surrounding Jordan Lake • Clean Water Act Section 404 Authorization – permit for minor activities in

Each Corps approval must comply with the National Environmental Policy

 NC Department of Energy, Minerals, and Land Resources (DEMLR) » National Pollutant Discharge Elimination System (NPDES) Construction General

• Compliance with Land Development, Watershed Protection, and other

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Public Input on Environmental Issues

Federal, state, and local agencies all welcome public input on the permit applications they review. Specific opportunities for providing comments will be made available as applications are received and reviews begin. These opportunities will be posted on the WIP website.

The WIP welcomes public input at any time and may respond directly to the commentor, and/or forward comments to the appropriate agencies.



How to Submit a Comment



Submit a comment on the website westernintakepartnership.com using the online comment form.



Submit your comments in person today at our Public Open House.



Mail a letter to 555 Fayetteville Street, Ste 900, **Raleigh, NC 27601.**

Comments will be accepted through the project design phase. As the project progresses, additional public meeting opportunities will be available.



Communications

SCAN TO VISIT THE **PROJECT WEBSITE**

You can sign up to join our stakeholder email list on the project website: westernintakepartnership.com



Potential Water Transmission Main Corridors



- The transmission mains are pipes that will convey drinking water from the Water **Treatment Facility to the Partners' water** distribution systems.
- The map shows multiple corridors being considered for the transmission mains. Ultimately, one corridor will be selected for piping to convey water to Pittsboro, and one corridor will be selected for piping to convey water north to Chatham County and the City of Durham. OWASA will receive water from the project through existing connections with the City of Durham.
- Customer water service is provided from the Partners' individual systems, and there will not be individual customer connections directly to the transmission mains.
- The corridors mostly follow existing roadways, and the use of existing road right of ways for the transmission mains will be maximized to reduce the required encroachment on private property. Following additional study and identification of specific locations for the pipelines within the corridors, if a resident's property is being considered for a portion of the new piping, the owners will be contacted directly.







