

**Item Title:** Approval of the Wake County One Water Plan

**Specific Action Requested:**

**That the Board of Commissioners approves Wake County's Wake One Water Plan as the County's 50-year water resource plan.**

**Item Summary:**

**Purpose:** The Wake One Water Plan is a 50-year plan developed in collaboration with municipalities and the community that outlines strategies to support long-term water security and sustainability.

**Background:** The Wake County One Water Plan (Plan) is Wake County's first water resource plan. The Plan takes a holistic approach to water resource planning by considering all forms of water (surface water, groundwater, stormwater, and wastewater) and proactively managing these resources in a way that supports business, agriculture, residents, and natural resources.

The Plan is the result of a collaborative effort led by the Wake County Water Partnership and an extensive community engagement process. It builds upon the foundation of PLANWake, and results in a series of action strategies that can help mitigate the impacts of future growth and land use change as well as projected climate extremes.

Implementation of the Plan will require ongoing collaboration with municipal partners, as well as the private sector, academic partners, community organizations and the residents of Wake County.

**Strategic Plan:** The Wake One Water Plan will support a broad range of Strategic Plan goals. Specifically, this action supports Growth, Land Use and Environment Goal 4: By 2029, 95% of residents asked will have easy access to clean water.

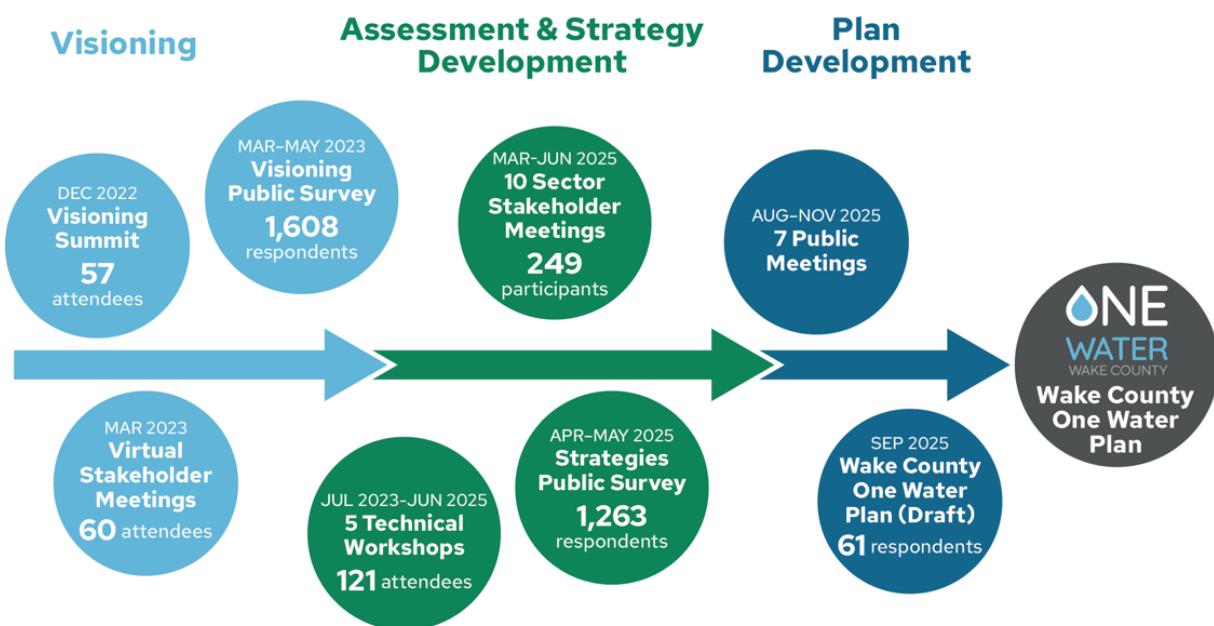
**Fiscal Impact:** This action has no fiscal impact. Future implementation strategies associated with the Plan will have financial impacts and will be dependent on the project/action and the number of partners participating in the project.

**Additional Information:**

Increases in water demand along with changes in weather patterns require the County to proactively plan in order to prepare for future water quantity and quality challenges. Water is a key requirement for economic development and supports sustainability and the quality of life that continues to attract businesses and individuals to the County.

Recognizing the importance of water to Wake County's future, in June 2022, the Wake Board of Commissioners (BOC) approved ARPA funding for Phase 2 of the Wake One Water Plan. Developed in conjunction with the Phase 1 USGS Groundwater Assessment Study, Phase 2 of the Plan evaluates municipal water supplies, wastewater capacity and stormwater alongside projected growth and climate extremes in order to better understand the County's capacity to meet future water demands.

The BOC appointed Wake County Water Partnership Committee provided leadership in developing the Plan, which represents a collaborative effort with Wake County, municipalities and community stakeholders. The Plan included an extensive engagement process that included two public surveys, meetings with Wake County Economic Development, Raleigh/Wake County Home Builders Association, the agricultural community, and community input sessions that further refined the Vision and Goals and subsequent plan recommendations.



In 2022, representatives from departments across Wake County met with municipal representatives and subject matter experts to outline the Vision for the Plan. Based upon additional community feedback and work sessions, the following Vision and Goals were established:

- Build Knowledge, Collaboration and Partnerships
- Increase Community Resilience to Extreme Weather Events
- Cultivate Community Support
- Advance Access to Clean Water for All
- Support Local Economy and Fiscal Accountability

The Plan includes a detailed analysis of water supply and wastewater treatment capacity. Based upon current growth projections, all municipal water supply systems will require some form of water supply or water treatment expansion in the next 50 years. In addition, four of the centralized wastewater treatment systems located in Wake County (Apex,

Fuquay Varina, Holly Springs and Raleigh) will require wastewater treatment expansion or an agreement with another system to treat wastewater. While municipal systems are dependent upon surface water sources such as Falls Lake and Jordan Lake, impacts to groundwater could also result in future challenges to private well and community well users. Groundwater vulnerability is projected to increase as land use changes and weather extremes result in more droughts and flooding impacts.

A series of workshops with Water Partnership representatives and subject matter experts informed the development of a suite of strategies to help mitigate the impacts of projected growth, land use and climate extremes. The Plan then applied the WaterFALL® model to evaluate the potential water quality and hydrology benefits of a subset of strategies. Public input sessions and a countywide survey further refined strategies that can be categorized into four main focus areas:

1. **Optimized Water Supply.** Managing the County's water supply by protecting groundwater resources, conserving and reusing water, and strategically expanding water resources.
2. **Site-Specific Strategies to Improve Water Quality and Hydrology.** Implementing green and blue infrastructure, nature-based solutions and alternative nutrient-reduction strategies to minimize water pollution and mitigate high-flow events that lead to localized flooding.
3. **Land Conservation and Preservation.** Preserving undeveloped, natural open spaces and agricultural land to help sustain important ecosystem services, such as floodwater absorption and groundwater infiltration and recharge, and provide opportunities for recreation and connection with nature.
4. **Flood Resilience.** Mitigating flooding and protecting public safety through infrastructure solutions that increase storage, conveyance and protection.

These focus areas align and support multiple Wake County plans including: PLANWake, Wake County Food Security Plan, Farmland Preservation Plan (in development), the Wake County Greenway System Plan, and the Wake County Parks Master Plan (in development). Detailed strategies, along with identified Partners, Milestones and Metrics are incorporated into the companion One Water Implementation Strategy report and will guide the Water Partnership as it advances implementation of the Plan.

This Plan is a “living document,” and the County will continuously adjust strategies to fit evolving conditions caused by climate shifts, population growth, or new information and data. Progress on Plan implementation will be through milestones and metrics identified in the One Water Implementation Strategy.

**Attachments:**

1. Presentation
2. Wake County One Water Plan