

# Upper Neuse River Basin Association



## What is UNRBA?

The Upper Neuse River Basin Association is a partnership of 13 local governments, one water and sewer authority, and a group of six soil and water conservation districts. The UNRBA promotes cooperative approaches to water quality planning in the Upper Neuse River Basin's 770-square-mile watershed.

## Our Focus

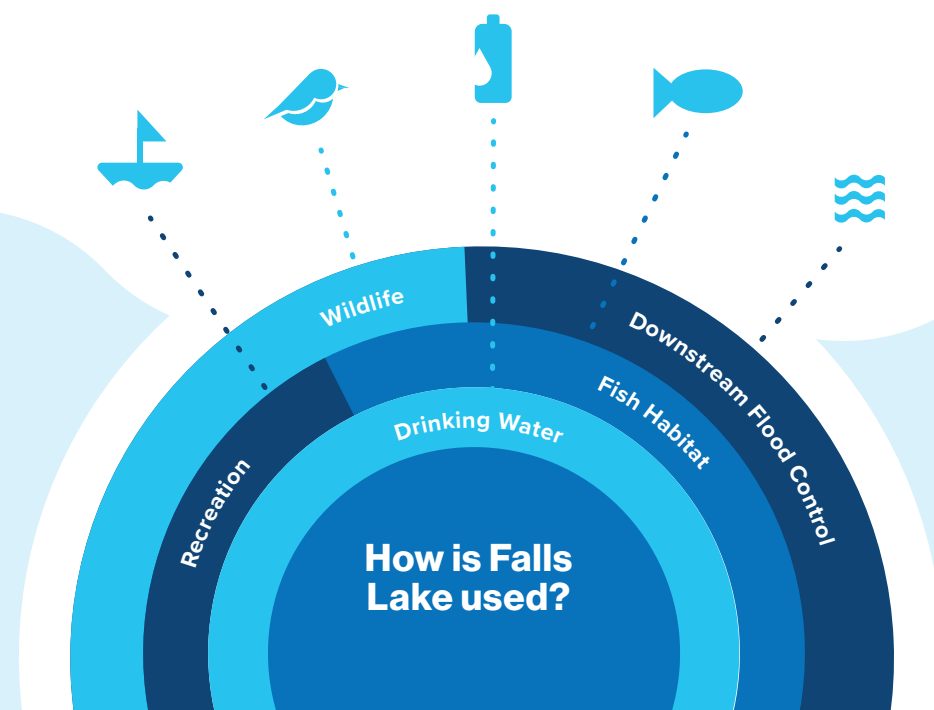
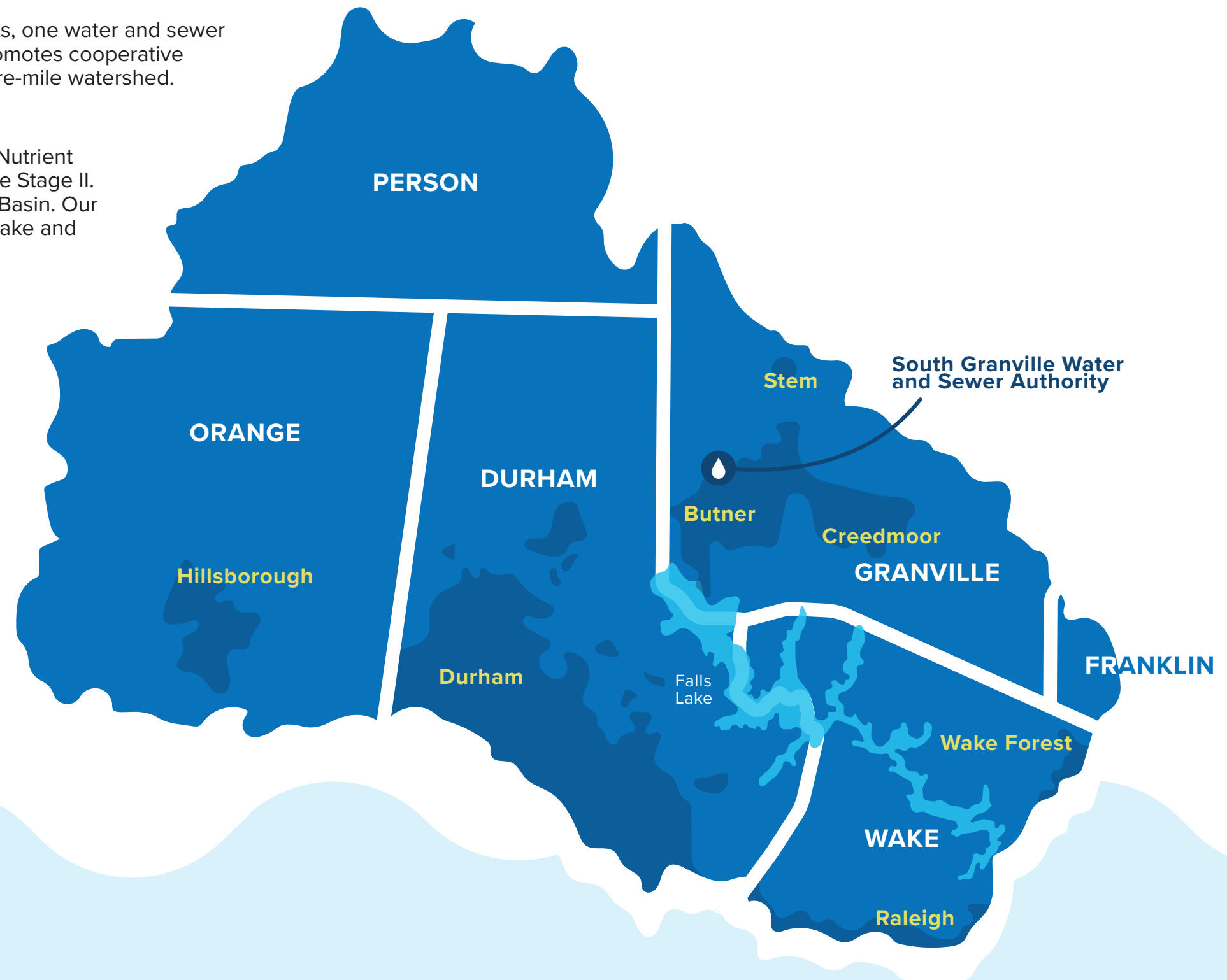
We are committed to helping our members comply with Stage I of the Falls Lake Nutrient Management Strategy and develop a more productive, cost-effective, and feasible Stage II. These two stages reflect state regulations for controlling nutrient pollution in the Basin. Our members' actions to date have already improved water quality throughout Falls Lake and brought the lower part of the lake into compliance.

## Our Mission

The rules in Stage II of the Falls Lake Nutrient Management Strategy are a stumbling block to securing ongoing water quality improvement in Falls Lake. Stage II is estimated to cost local governments and citizens in the Basin over \$1 billion. Its requirements are based on incomplete data, it requires technologically unachievable actions, and it does not leave room for innovative, cost-effective approaches to improving water quality.

The funding provided each year by our member governments is allowing us to conduct and lead a multi-year project to produce a better strategy that is technically feasible and more cost-effective.

Our final product – an alternate strategy for managing nutrients in the Basin – will rely on robust science, consider fiscal constraints, and produce ongoing water quality improvements in Falls Lake.



# Stage I Success

Efforts to reduce nutrient runoff into Falls Lake in Stage I have already contributed to water quality improvements in the lower portion of Falls Lake near the City of Raleigh's drinking water supply.

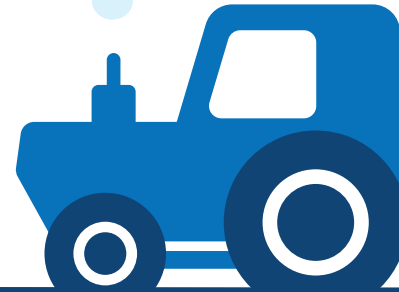
Pastures have exceeded their Stage I **N** reduction goal  
Cropland has exceeded its Stage I and Stage II **N** reduction goals  
Best practices are being implemented to reduce **P** loss

Over 340 retrofit projects have been installed to reduce **P** and **N** runoff from existing development in the City of Durham.

Local governments across the Basin passed new development regulations. Nutrient loading to the lake remains at pre-development levels or better!

The Town of Hillsborough invested \$16 million to upgrade its treatment plant.

- ↓ **N** by 29,000 lb each year
- ↓ **P** by 2,900 lb each year



Wastewater treatment plants have already met or exceeded their Stage I goals.

- ↓ **N** at least 20%
- ↓ **P** at least 40%

In 2010, North Carolina adopted two stages of regulations to reduce the concentration of nutrients in Falls Lake.

Nutrients are essential in aquatic ecosystems, but they can encourage harmful algae growth in high concentrations.



### Phosphorus

Allows plants and algae to transfer energy, grow, and mature



### Nitrogen

A building block of protein and a major component of chlorophyll, which allows plants to harness sunlight to turn CO2 into sugar

## Stage II Reexamination

The Stage II rules, slated to take effect in 2024, are not workable. The UNRBA is leading the way toward a revised, science-based strategy that will balance actions, on-the-ground conditions, and financial constraints.

**\$** Implementation costs of >\$1 billion are out of scale with conditions on the ground as nutrient levels are not compromising the lake's designated uses

**⊘** Requires outcomes from existing development that are unachievable with existing technology

**💡** Rules out other innovative, cost-effective strategies for nutrient reduction

Visit [UpperNeuse.org](http://UpperNeuse.org) to learn more!  
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