

# Falls Lake: Questions & Answers

## Falls Lake is YOUR water.

Falls Lake is the primary source of drinking water for nearly half a million residents of Wake County, including Raleigh, Knightdale, Garner, Wake Forest, Wendell and Zebulon. It's also a major recreational resource for residents of Wake, Durham, and Granville counties, and provides vital wildlife habitat in the rapidly expanding Triangle area. The Falls Lake reservoir was built by the US Army Corps of Engineers in 1983 by damming the Neuse River.

## What is the problem?

Falls Lake is polluted. Excessive nitrogen and phosphorus – from wastewater treatment plants, from urban and suburban development, and from farms – has brought the lake near to ecological collapse. The crisis pits use of the lake for clean drinking water, natural habitat and recreation against the desire of upstream governments to expand their property tax base through development while limiting their responsibilities to manage past and future growth.

## How polluted is the lake?

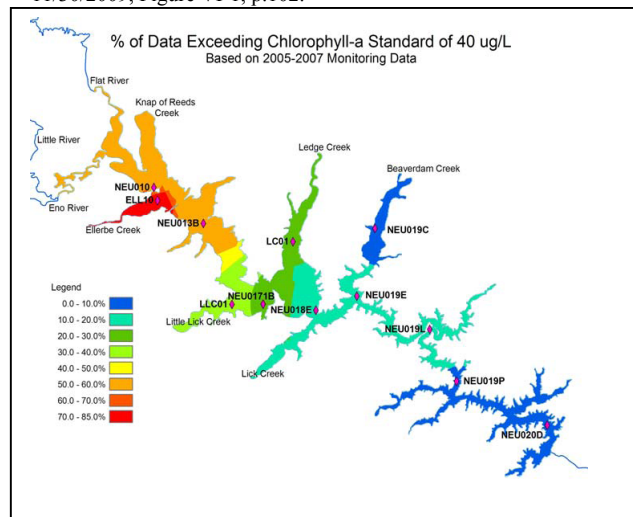
Water samples from the upper end of the lake violate water quality standards as much as 80% of the time, and the pollution is reaching down through the lake towards Raleigh's drinking water intake at the lower end. While the water is safe to drink right now, potentially toxic cyanobacteria are increasing. What's more, Raleigh's Public Utilities must use more chemicals and more expensive filtration methods to make the water clean enough to drink, raising treatment costs.

The federal Clean Water Act and state water quality laws require that major dischargers of pollution act now to clean up the lake. Scientific models show we need to cut nitrogen by 40% and phosphorus by 77%, measured against 2006 levels. This will be a big job, and everyone must do their part to reach these goals to secure benefits from the lake for this generation and beyond.

## What is happening now?

State law – updated in 2009 – requires the state Environmental Management Commission to issue rules to clean up Falls Lake by January 15, 2011. The rules will need to propose actions on multiple levels in order to address pollution from all the major sources – existing development, agriculture, wastewater treatment plants – and to prevent additional pollution from new development.

Graphic credit: Falls Lake Nutrient Response Model Final Report, 11/30/2009, Figure VI-1, p.102.



## What needs to happen to clean up Falls Lake?

To successfully clean up Falls Lake, the rules should be guided by these principles:

1. **Clean up the entire lake.** The federal Clean Water Act and state law require that the entire lake be cleaned up – it will take a while, but the rules must be strong enough to result ultimately in full compliance with water quality standards throughout the lake.
2. **Start now and finish the job within 25 years.** We know what must be done. Every delay in beginning major reductions in discharges and polluted runoff increases future costs and postpones the final cleanup. It took less than 25 years to create the current water problem; we shouldn't pass it on to the next generation. The timeline for the rules should reach full cleanup by 2035. The costs to municipalities, taxpayers, and ratepayers for water treatment (filters, chemicals, and ultimately a water treatment plant) and for future retrofits of existing development will only increase over time if we do not bring the lake into compliance.
3. **No delays along the way.** Some stakeholders have proposed remodeling the lake partway along to determine if measures are still needed. But from the extent of current contamination, we know that any reputable science in the next two decades will only confirm that Falls Lake is in terrible shape, and needs dramatic pollution reductions to regain its health.
4. **Keep stormwater on site by restoring natural hydrology.** Current efforts to manage stormwater runoff through engineered structural controls, like big detention basins are not keeping water bodies clean. Soil scientists and architects are realizing that the best way to prevent polluted runoff is to make developed sites mimic the way they managed rainwater before development. One way to restore natural hydrology is by employing Low Impact Development (LID) practices to keep stormwater on site, rather than flowing into streams. In the Falls Lake watershed, where the soils are especially susceptible to erosion, shifting new and existing development towards original hydrology is one key to restoring lake health.

## What can you do?

Concerned residents can help shape the future of Falls Lake. Please contact your city, county and state elected officials to urge them to support an aggressive effort to reduce pollution and restore the health of the lake.

*For more information, please contact:*



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