HOUSE BILL 630:
Alternative WQ Protection for Falls Lake

2015-2016 General Assembly

Committee:	House Environment	**Date:**	April 21, 2015
Introduced by:	Rep. Yarborough	**Prepared by:**	Jennifer Mundt
Analysis of:	First Edition		Committee Staff

SUMMARY: House Bill 630 would direct the Department of Environment and Natural Resources and the Environmental Management Commission to (i) examine the results of the Jordan Lake Nutrient Mitigation Demonstration Project to determine if similar technology could be deployed to reduce or prevent the adverse impacts of excessive nutrient loading in Falls Lake and (ii) consult with the United States Environmental Protection Agency (USEPA) to determine if all components of the Falls Lake Nutrient Management Strategy are necessary to comply with federal law.

CURRENT LAW: The 2013 Appropriations Act (Section 14.3A of S.L. 2013-360) directed the Department of Environment and Natural Resources (Department) to establish a 24-month demonstration project for the management of nutrients in Jordan Lake. The demonstration focuses on preventing and reducing harmful algal blooms and excessive chlorophyll as well providing other nutrient mitigation measures in the Haw River arm and the Morgan Creek arm of Jordan Lake by directing the Department to enter into a contract with a third party (SolarBee) to deploy floating arrays of in-lake, long-distance circulators to reduce or prevent the adverse impacts of excessive nutrient loads, such as algal blooms, taste and odor problems in drinking water, and low levels of dissolved oxygen.

BILL ANALYSIS: House Bill 630 would direct the Department and the Environmental Management Commission (Commission) to:

- Examine the results of the SolarBee Demonstration Project to determine if similar technology could be used to reduce or prevent the adverse impacts of excessive nutrient loading in Falls Lake. The Department and the Commission must report the results of their determination no later than six months after completion of the SolarBee demonstration project to the Environmental Review Commission (ERC).
- Not later than October 1, 2015, consult with USEPA to determine if all of the components of the Falls Lake Nutrient Management Strategy are necessary and if alternative strategies could be employed to comply with federal water quality requirements for Falls Lake. The Department and the Commission must report the results of their consultation with USEPA to the ERC no later than January 1, 2016.

EFFECTIVE DATE: This act is effective when it becomes law.

BACKGROUND: Falls of the Neuse Reservoir (Falls Lake) is a multipurpose impoundment of the Neuse River located in the Upper Neuse River basin. The reservoir is the primary water supply for the City of Raleigh and surrounding towns in Wake County. The Falls Lake dam was constructed and filled

by 1983, and is currently operated by the United States Army Corps of Engineers. The reservoir extends 28 miles to just above the confluence of the Eno and Flat Rivers. The uses for the reservoir include: water supply, flood control, recreation, wildlife enhancement, and augmentation of low flows for purposes of pollution abatement and water quality control in the Neuse River basin. Algal blooms and eutrophic conditions have been present in the lake since impoundment.

Falls Lake was listed on North Carolina's 2008 303(d) list as impaired for *chlorophyll a* and the portion of the lake upstream of I-85 was listed as impaired for turbidity. In 2005, the General Assembly passed Session Law 2005-190, which directed the Commission to study drinking supply reservoirs in general, and to develop and implement a nutrient management strategy based on a calibrated nutrient response model for certain reservoirs, including Falls Lake. The Falls Lake nutrient management approach was amended in S.L. 2009-486 to revise the Commission's deadline to adopt rules from July 1, 2009, to January 15, 2011, and added certain requirements for water quality improvements in the watershed. After developing a nutrient response model and engaging stakeholders for input, a nutrient management strategy was developed, adopted, and became effective January 15, 2011.

Falls Lake Reservoir and Watershed

Image and additional information on the Falls Lake Nutrient Management Program are available from DENR here: http://portal.ncdenr.org/web/fallslake/home