UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

DEC 21 2009

Coleen Sullins, Director
Division of Water Quality
North Carolina Department of Environment
and Natural Resources
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

Dear Ms. Sullins:

The U. S. Environmental Protection Agency (EPA) received the revisions to *15A NCAC 2B Surface Water and Wetlands Standards, Section .0300 Assignment of Stream Classification* which were submitted to EPA for review by letter, dated July 30, 2009, and received on August 5, 2009. The first revision, to modify the Horsepasture River to include the Outstanding Resource Water designation was approved by EPA on October 9, 2009. This letter approves the second and final revision, which modifies the use designation in a portion of the Cape Fear River Basin (consisting of 13 segments) to include water supply as a use (*15A NCAC 2B .0311 – Cape Fear River Basin*).

The public hearing for the Cape Fear River revision was held on August 14, 2008. The effective date of the regulation was January 1, 2009. A certification was included in this submission from the North Carolina Attorney General stating that this revision was duly adopted pursuant to State law and is valid and enforceable in the State of North Carolina. In accordance with 40 CFR Section 131.21(c), new and revised State and Tribal water quality standards are not effective for Clean Water Act (CWA) purposes until approved by EPA. EPA approves this revision as detailed below.

On November 13, 2008, the North Carolina Environmental Management Commission adopted a revision to the use designation of these thirteen segments in the Cape Fear River Basin from Class C (fresh waters protected for secondary recreation, fishing, aquatic life including propagation and survival, and wildlife) to Class Water Supply (WS) IV (source of water supply for drinking, culinary, or food-processing purposes for those users where a more protective WS-I, WS-II, or WS-III classification is not feasible, and any other best usage specified for Class C waters). One segment was also designated as WS-IV Critical Area (CA). The CA designation is used for areas adjacent to water supply intakes or reservoirs where risk associated with pollution is greatest, usually within 0.5 miles draining to an intake.

On September 29, 2009, EPA and North Carolina drinking water and water quality standards staff and management held a conference call to discuss the presence of perfluorooctanoic acid (PFOA) in the Cape Fear River as documented in a recent study

(*Perfluorinated Compounds in the Cape Fear Drainage Basin in North Carolina,* Nakayama, et al., 2007). PFOA, also known as C-8, is part of a family of compounds known as perfluorinated compounds (PFCs). EPA has not developed Section 304(a) recommended criteria for PFOA or other PFCs. Similarly, DWQ does not have a water quality standard for PFOA or PFCs. It is important to note, however, that after the date that the State's reclassification of these thirteen segments became effective under State law, EPA published a Provisional Health Advisory for PFOA and perfluorooactane sulfonate (PFOS) (January 8, 2009). The provisional health advisory of 0.4 ug/L for PFOA and 0.2 ug/L for PFOS was developed to provide a reasonable, health-based hazard concentration above which action should be taken to reduce exposure to unregulated contaminants in drinking water. This provisional value is based on limited data and may be revised as more data becomes available. The 2007 PFOA Study conducted on the Cape Fear River did not find values above the Provisional Health Advisory for either PFOA or PFOS.

North Carolina's water quality standards for WS-IV waters state:

"Quality standards applicable to Class WS-IV Waters are as follows: ...industrial wastes, non-process industrial wastes or other wastes: none shall be allowed...that shall have an adverse effect on human health or that are not effectively treated to the satisfaction of the Commission and in accordance with the requirements of the Division of Environmental Health, NC DENR."

North Carolina indicated to EPA that the facility which will be operating the proposed water treatment plant in Tar Heel, North Carolina, will be using state-of-the-art treatment for PFCs, including granulated activated charcoal (GAC), which is considered 'Best Available Technology'. Should North Carolina need any additional information on PFOA or PFCs, please do not hesitate to contact Lee Thomas in our office at (404) 562-9786.

This revision retains all aquatic life uses and supporting water quality criteria of the State's Class C designation, which also apply to Class WS IV and WS IV CA waters. Therefore, since the water quality criteria and uses of the State's Class C designation provide for protection of the CWA Section 101(a)(2) uses (fishable/swimmable), this revision is consistent with the goals of Section 101(a) of the CWA and the implementing regulations at 40 CFR Part 131.

EPA has determined that the revisions are consistent with the federal water quality standards regulations at 40 CFR Part 131 and the CWA. In accordance with Section 303(c) of the CWA and 40 CFR Part 131, EPA is approving these revisions. In accordance with 40 CFR 131.21(c), the revised State water body primary and supplemental classifications are now considered effective for CWA purposes.

If you have any questions, please feel free to contact me at (404) 562-9470, or have your staff contact Lisa Perras Gordon at (404) 562-9317.

Sincerely,

for James D. Giattina, Director
Water Management Division

Enclosure

Use Designation Modifications
Cape Fear River Basin

Name of Stream	Description	New Classification
Cape Fear River	From a point approximately 0.5 mile upstream of Smithfield Packing Company's (SPC's) intake to SPC's Intake. (Approximately 2 miles upstream of County Rd. 1316).	WS-IV; CA
Cape Fear River	From a point approximately 1 mile upstream of Gray's Creek to a point approximately 0.5 miles upstream of SPC's intake.	WS-IV
Georgia Branch (Prospect Hall Creek)	From source to Cape Fear River.	WS-IV
Mines Creek	From dam at pages Lake to Georgia Branch.	WS-IV
Mines Creek (Pages Lake)	From source to dam at Pages Lake.	WS-IV, B
Willis Creek	From source to Cape Fear River	WS-IV
Unnamed Tributary At Willis Creek Church	From dam at McGaugans lake to Willis	WS-IV
Unnamed Tributary at Willis Creek Church (McGaugans Lake)	From source to dam at McGougans Lake	WS-IV, B

Use Designation Modifications
Cape Fear River Basin (continued)

Name of Stream	Description	New Classification
Kirks Mill Creek	From source to Willis Creek	WS-IV
Swans Creek	From a point appox. 0.2 miles downstream of CR 2233 to Willis Creek	WS-IV
Longs Branch (McNeill Pond)	From a point appox. 0.04 miles downstream of CR 2261 to Swans Creek	WS-IV
Hairs Mill Creek	From source to Cape Fear River	WS-IV
Grays Creek	From a point appox. 0.04 miles downstream of CR 2233 to Cape Fear River	WS-IV