FISCAL NOTE
Rule Citation Number: 15A NCAC 2B .0315 Neuse River Basin

Rule Topic: Proposed Reclassification of Portions of the Neuse River from Water Supply-V (WS-V) and WS-IV (Protected Area or PA) to WS-IV (PA) and WS-IV Critical Area (CA), and Quarry from C to WS-IV CA

DENR Division: Division of Water Quality

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Impact Summary:

State government:	Yes
Local government:	Yes
Substantial impact:	No
Federal government:	No

Authority: G.S. 143-214.5

Necessity: This proposed reclassification is necessary to ensure the supply of drinking water for Johnston County. Under North Carolina 15A NCAC 18C .0202, "any surface water which is to receive treatment…in order to be used for a public water system shall be obtained from a source which meets the water supply stream classification standards established by the EMC...".

I. Summary

Johnston County (County) has requested that portions of the Neuse River and associated watershed plus an abandoned quarry in Johnston County (Neuse River Basin) be reclassified for public water supply use. The WS-IV Critical Area[1] (CA) and WS-IV [Protected Area[2] (PA)] designations would be the most appropriate classifications for this use and these waters (see Appendix 1 for the proposed rule change text). The reclassification would permit the County to place a new water intake in the river, and thus, utilize river water and quarry water as permanent potable water supplies, in order to meet water demands projected through 2050. If reclassified, regulations affecting new development and wastewater discharges would apply. Currently, there are no wastewater discharges or new developments impacted by this proposal. Johnston County is the local government with jurisdiction in the proposed reclassification area, and is willing to incur costs due to the rule change. The analysis of the proposed rule does not indicate that estimated annual economic impacts would meet or exceed $500,000. The state anticipates the effective date of this reclassification to be July 1, 2012.

[1] Critical Area: The lands and waters 0.5 miles linearly upstream and draining to a water intake.

[2] Protected Area: The lands and waters 10 miles run-of-the-river upstream and draining to a water intake, not including the Critical Area.

I. Purpose of Rules and Background

The purpose of this rule change is to provide the County with a permanent source of drinking water to meet water demands projected through 2050. The waters to be reclassified meet water supply standards according to 2011 DWQ studies, except for high chloride levels in the quarry, which are likely due to high evaporation rates and residence times. Dilution and reduced residence times in the quarry, which will occur once use as a water supply begins, should result in lowered chloride concentrations. A Finding of No Significant Impact (FNSI) has been issued for this project, indicating that the project will not result in significant impacts to the environment.

The Division of Water Quality assigns all surface waters a primary classification to designate their best uses. Class C is the most basic classification for freshwater and is intended to protect the following uses: secondary recreation, fishing, wildlife, fish and aquatic life propagation and survival, and agriculture. Secondary recreation includes wading, boating, and other uses involving human body contact with water where such activities take place in an infrequent, unorganized, or incidental manner. Other primary classifications are assigned to protect waters for such uses as shellfishing (Class SA), drinking water supply (WS-I through WS-V), and primary recreation (B). Supplemental classifications afford additional protections, and include Nutrient Sensitive Waters (NSW) and High Quality Waters (HQW).

The five drinking water supply classifications, WS-I through WS-V, reflect the variability in the types of water supply watersheds across the state. The Water Supply Watershed Protection Act (North Carolina General Statute 143-214.5) requires the Environmental Management Commission to adopt rules to protect the state's surface drinking water supply watersheds.

The County has requested that portions of the Neuse River and associated watersheds plus an abandoned quarry in Johnston County (Neuse River Basin) be reclassified for public water supply use. The WS-IV CA and WS-IV (PA) designations would be the most appropriate classifications for this use and these waters (see Appendix 1 for the proposed rule change text). The quarry is located about two miles north of the Town of Princeton, and along the western bank of the Little River; the boundary of its proposed CA consists of the top of the quarry. The riverine CA would extend along the river from the intake proposed at Richardson Bridge Road (SR 1201) to a point nearly 0.5 miles upstream of that intake. The PA would extend along the river from a point about 1.7 miles upstream of Bawdy Creek to a point nearly 1.4 miles downstream of Gar Gut**.** See the Guide to Freshwater Classifications Chart (PDF) for regulations on discharges and new developments at the following website: http://portal.ncdenr.org/web/wq/ps/csu/classifications.

II. Costs

Regulated Parties

(a) Wastewater Discharge

There are no existing wastewater discharges in the proposed water supply watershed. In addition, there are no known planned wastewater discharges into the proposed waters.

(b) New Development

According to NC DWQ Regional office staff, as well as Berry Gray, Planning Director of the Johnston County Planning Department, there are no known plans for new development in the area.

(c) Local Governments
Johnston County would be required to modify their water supply watershed ordinance within 270 days after the effective date of the proposed rule to reflect the changes in surface waters classifications and resulting changes in land management requirements.

There are one-time costs associated with the modification of water supply watershed ordinances. These expenditures include costs for revising water supply watershed protection language in the ordinances, changing the water supply boundaries on maps, public notification, and hearing costs. A single local government or a paid consulting firm could perform these tasks. The estimated total cost of staff time and physical materials required for these activities to be conducted by Johnston County is approximately $500, according to Berry Gray, Planning Director of the Johnston County Planning Department.

(d) Department of Transportation (DOT)
This reclassification would not affect any known DOT activities in the area according to Matthew Lauffer (NC DOT Highway Stormwater Program Project Manager) and David Harris (NC DOT State Roadside Erosion Control and Vegetation Management Engineer).

Implementing Agencies
(a) Division of Water Quality
The NC DWQ Central office and Regional office staff will oversee the processing of the proposed rule as well as the implementation and enforcement of the requirements. DWQ staff will handle administrative procedures, educational and technical assistance and rule/policy evaluations. In addition, there are DWQ staff that will specifically oversee and assist local governments with watershed planning and ordinances. The Division issues permits, conducts inspections and takes enforcement actions. DWQ monitors and keep records of compliance associated with their inspections and enforcement activities.

The Division of Water Quality anticipates that if this rule becomes effective, there will be a one-time cost of $600 to the state. This cost is to be incurred to support notification of Johnston County and review and approval of changes to their local ordinance and map.

The cost to the state per county and municipality varies depending on the particular staff required to review specific types of local programs as well as the complexity of the different local programs. The formula used to estimate the cost associated with each municipality or county is the following:

One-time Cost to State = [#tasks] X [hrs/task] X [staff cost/hr]] + [25% overhead]

"Tasks" include phone calls, letters, site visits, and meetings that would be performed by state staff, and "staff cost/hr," which is based on salary information from OSBM as of July 1, 2008, includes salary, payroll taxes, retirement, and health benefits.

III. Benefits

(a) Humans
The County's citizens will benefit from the reclassification of these river segments for use as a source of permanent potable water. Reclassifying the waters will help protect the water supply for human

consumption by decreasing the risk of contamination via implementation of wastewater discharge and stormwater management requirements for new future developments and discharges.

(b) Environment/Ecosystem

Implementation of stormwater management strategies and narrative and numeric water quality standards benefit and protect ecosystem health and environmental assets. The protective management criteria associated with the WS-IV classification will help to mitigate impacts from new discharges and development, and will benefit fish and wildlife. More specifically, portions of the area proposed to be reclassified may experience decreased stormwater runoff as well as decreased pollution, which may increase and improve aquatic habitat and, in turn, increase propagation and survival of wildlife and fish. DWQ currently does not have adequate data and models to quantify the potential benefits associated with the increase in wildlife habitat or reduction of pollution and stormwater runoff that this rule may create.

The analysis of the proposed rule indicates that estimated annual economic impacts would be significantly less than $500,000.

APPENDIX 1

15A NCAC 02B .0315 NEUSE RIVER BASIN

(a) The Neuse River Basin Schedule of Classification and Water Quality Standards may be inspected at the following places:

(1) the Internet at http://h2o.enr.state.nc.us/csu/; and

(2) the North Carolina Department of Environment and Natural Resources:

(A) Raleigh Regional Office
3800 Barrett Drive
Raleigh, North Carolina;

(B) Washington Regional Office
943 Washington Square Mall
Washington, North Carolina;

(C) Wilmington Regional Office
127 Cardinal Drive
Wilmington, North Carolina;

(D) Division of Water Quality
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) The Neuse River Basin Schedule of Classification and Water Quality Standards was amended effective:

(1) March 1, 1977 see Paragraph (c) of this Rule;
(2) December 13, 1979 see Paragraph (d) of this Rule;
(3) September 14, 1980 see Paragraph (e) of this Rule;
(4) August 9, 1981 see Paragraph (f) of this Rule;
(5) January 1, 1982 see Paragraph (g) of this Rule;
(6) April 1, 1982 see Paragraph (h) of this Rule;
(7) December 1, 1983 see Paragraph (i) of this Rule;
(8) January 1, 1985 see Paragraph (j) of this Rule;
(9) August 1, 1985 see Paragraph (k) of this Rule;
(10) February 1, 1986 see Paragraph (l) of this Rule;
(11) May 1, 1988 see Paragraph (m) of this Rule;
(12) July 1, 1988 see Paragraph (n) of this Rule;
(13) October 1, 1988 see Paragraph (o) of this Rule;
(14) January 1, 1990 see Paragraph (p) of this Rule;
(15) August 1, 1990;
(16) December 1, 1990 see Paragraph (q) of this Rule;
(17) July 1, 1991 see Paragraph (r) of this Rule;
(18) August 3, 1992;
(19) April 1, 1994 see Paragraph (t) of this Rule;
(20) July 1, 1996 see Paragraph (u) of this Rule;
(21) September 1, 1996 see Paragraph (v) of this Rule;
(22) April 1, 1997 see Paragraph (w) of this Rule;
(23) August 1, 1998 see Paragraph (x) of this Rule;
(24) August 1, 2002 see Paragraph (y) of this Rule;
(25) July 1, 2004 see Paragraph (z) of this Rule;
(26) November 1, 2007see Paragraph (aa) of this Rule;
(27) January 15, 2011 see Paragraph (bb) of this ~~Rule.~~Rule;
(28) July 1, 2012 see Paragraph (cc) of this Rule.

(c) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective March 1, 1977 with the a total of 179 streams in the Neuse River Basin reclassified from Class D to Class C.

(d) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective December 13, 1979 as follows: Little River [Index No. 27-57-(21.5)] from source to the dam at Wake Forest Reservoir has been reclassified from Class A-II to Class A-II and B.

(e) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective September 14, 1980 as follows: T he Eno River from Durham County State Road 1003 to U.S Highway 501 [Index No. 27-2-(16)] was reclassified from Class C and B to Class A-II and B.
(f) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective August 9, 1981 to remove the swamp water designation from all waters designated SA in the Neuse River Basin.
(g) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective January 1, 1982 as follows: The Trent River from the mouth of Brice Creek to the Neuse River [Index No. 27-101-(39)] was reclassified from Class SC Sw to Class SB Sw.
(h) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective April 1, 1982 as follows:

(1) Longview Branch from source to Crabtree Creek [Index No. 27-33-(21)] was reclassified from Class C1 to Class C.
(2) Watson Branch from source to Walnut Creek [Index No. 27-34-(8)] was reclassified from Class C1 to Class C.

(i) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective December 1, 1983 to add the Nutrient Sensitive Waters classification to the entire river basin above Falls dam.
(j) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective January 1, 1985 as follows: Nobel Canal from source to Swift Creek [Index No. 27-97-(2)] was reclassified from Class C1 to Class C.
(k) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective August 1, 1985 as follows:

(1) Southeast Prong Beaverdam Creek from source to Beaverdam Creek [Index No. 27-33-15(2)] was reclassified from Class C1 to Class C.
(2) Pigeon House branch from source to Crabtree Creek [Index No. 27-33-(18)] was reclassified from Class C1 to Class C.
(3) Rocky Branch from source to Pullen Road [Index No. 27-34-6-(1)] was reclassified from Class C1 to Class C.
(4) Chavis Branch from source to Watson Branch [Index No. 27-37-8-1] was reclassified from Class C1 to Class C.

(l) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective February 1, 1986 to reclassify all Class A-I and Class A-II streams in the Neuse River Basin to WS-I and WS-III.
(m) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective May 1, 1988 to add the Nutrient Sensitive Waters classification to the waters of the Neuse River Basin below the Falls Lake dam.
(n) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective July 1, 1988 as follows:

(1) Smith Creek [Index No. 27-23-(1)] from source to the dam at Wake Forest Reservoir has been reclassified from Class WS-III to WS-I.
(2) Little River [Index No. 27-57-(1)] from source to the N.C. Hwy. 97 Bridge near Zebulon including all tributaries has been reclassified from Class WS-III to WS-I.
(3) An unnamed tributary to Buffalo Creek just upstream of Robertson's Pond in Wake County from source to Buffalo Creek including Leo's Pond has been reclassified from Class C to B.

(o) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective October 1, 1988 as follows:

(1) Walnut Creek (Lake Johnson, Lake Raleigh) [Index No. 27-34-(1)]. Lake Johnson and Lake Raleigh have been reclassified from Class WS-III to Class WS-III B.
(2) Haw Creek (Camp Charles Lake) (Index No. 27-86-3-7) from the backwaters of Camp Charles Lake to dam at Camp Charles Lake has been reclassified from Class C to Class B.

(p) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective January 1, 1990 as follows:

(1) Neuse-Southeast Pamlico Sound ORW Area which includes all waters within a line beginning at the southwest tip of Ocracoke Island, and extending north west along the Tar-Pamlico River Basin and Neuse River Basin boundary line to Lat. 35 degrees 06' 30", thence in a southwest direction to Ship Point and all tributaries, were reclassified from Class SA NSW to Class SA NSW ORW.

(2) Core Sound (Index No. 27-149) from northeastern limit of White Oak River Basin (a line from Hall Point to Drum Inlet) to Pamlico Sound and all tributaries, except Thorofare, John Day Ditch were reclassified from Class SA NSW to Class SA NSW ORW.

(q) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective December 1, 1990 with the reclassification of the following waters as described in (1) through (3) of this Paragraph.

(1) Northwest Creek from its source to the Neuse River (Index No. 27-105) from Class SC Sw NSW to Class SB Sw NSW;

(2) Upper Broad Creek [Index No. 27-106-(7)] from Pamlico County SR 1103 at Lees Landing to the Neuse River from Class SC Sw NSW to Class SB Sw NSW; and

(3) Goose Creek [Index No. 27-107-(11)] from Wood Landing to the Neuse River from Class SC Sw NSW to Class SB Sw NSW.

(r) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective July 1, 1991 with the reclassification of the Bay River [Index No. 27-150-(1)] within a line running from Flea Point to the Hammock, east to a line running from Bell Point to Darby Point, including Harper Creek, Tempe Gut, Moore Creek and Newton Creek, and excluding that portion of the Bay River landward of a line running from Poorhouse Point to Darby Point from Classes SC Sw NSW and SC Sw NSW HQW to Class SA NSW.

(s) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 02B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(t) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective April 1, 1994 as follows:

(1) Lake Crabtree [Index No. 27-33-(1)] was reclassified from Class C NSW to Class B NSW.

(2) The Eno River from Orange County State Road 1561 to Durham County State Road 1003 [Index No. 27-10-(16)] was reclassified from Class WS-IV NSW to Class WS-IV B NSW.

(3) Silver Lake (Index No. 27-43-5) was reclassified from Class WS-III NSW to Class WS-III B NSW.

(u) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective July 1, 1996 with the reclassification of Austin Creek [Index Nos. 27-23-3-(1) and 27-23-3-(2)] from its source to Smith Creek from classes WS-III NSW and WS-III NSW CA to class C NSW.

(v) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective September 1, 1996 with the reclassification of an unnamed tributary to Hannah Creek (Tuckers Lake) [Index No. 27-52-6-0.5] from Class C NSW to Class B NSW.

(w) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective April 1, 1997 with the reclassification of the Neuse River (including tributaries) from mouth of Marks Creek to a point 1.3 miles downstream of Johnston County State Road 1908 to class WS-IV NSW and from a point 1.3 miles downstream of Johnston County State Road 1908 to the Johnston County Water Supply intake (located 1.8 miles downstream of Johnston County State Road 1908) to class WS-IV CA NSW [Index Nos. 27-(36) and 27-(38.5)].

(x) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective August 1, 1998 with the revision of the Critical Area and Protected Area boundaries surrounding the Falls Lake water supply reservoir. The revisions to these boundaries is the result of the Corps of Engineers raising the lake's normal pool elevation. The result of these revisions is the Critical and Protected Area boundaries (classifications) may extend further upstream than the current designations. The Critical Area for a WS-IV reservoir is defined as .5 miles and draining to the normal pool elevation. The Protected Area for a WS-IV reservoir is defined as 5 miles and draining to the normal pool elevation. The normal pool elevation of the Falls Lake reservoir has changed from 250.1 feet mean sea level (msl) to 251.5 feet msl.

(y) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective August 1, 2002 with the reclassification of the Neuse River [portions of Index No. 27-(56)], including portions of its tributaries, from a point 0.7 mile downstream of the mouth of Coxes Creek to a point 0.6 mile upstream of Lenoir County proposed water supply intake from Class C NSW to Class WS-IV NSW and from a point 0.6 mile upstream of Lenoir County proposed water supply intake to Lenoir proposed water supply intake from Class C NSW to Class WS-IV CA NSW.

(z) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective July 1, 2004 with the reclassification of the Neuse River (including tributaries in Wake County) [Index Nos. 27-(20.7), 27-21, 27-21-1] from the dam at Falls Lake to a point 0.5 mile upstream of the Town of Wake Forest Water Supply Intake (former water supply intake for Burlington Mills Wake Finishing Plant) from Class C NSW to Class WS-IV NSW and from a point 0.5 mile upstream of the Town of Wake Forest proposed water supply intake to Town of Wake Forest proposed water supply intake [Index No. 27-(20.1)] from Class C NSW to Class WS-IV NSW CA. Fantasy Lake [Index No. 27 -57-3-1-1], a former rock quarry within a WS-II NSW water supply watershed, was reclassified from Class WS-II NSW to Class WS-II NSW CA.
(aa) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective November 1, 2007 with the reclassification of the entire watershed of Deep Creek (Index No. 27-3-4) from source to Flat River from Class WS-III NSW to Class WS-III ORW NSW.
(bb) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin is amended effective January 15, 2011 with the reclassification of all Class C NSW waters and all Class B NSW waters upstream of the dam at Falls Reservoir from Class C NSW and Class B NSW to Class WS-V NSW and Class WS-V & B NSW, respectively. All waters within the Falls Watershed are within a designated Critical Water Supply Watershed and are subject to a special management strategy specified in Rules 15A NCAC 02B .0275 through .0283.
(cc) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective July 1, 2012 as follows:

(1) Johnston County owned quarry near Little River [Index No. 27-57-(8.5)] from Class C NSW to Class WS-IV NSW CA. The Division of Water Quality maintains a Geographic Information Systems data layer of this quarry.
(2) A portion of the Neuse River [Index Number 27-(41.7)] from a point approximately 1.4 miles downstream of Gar Gut to a point approximately 1.7 miles upstream of Bawdy Creek from Class WS-V NSW to Class WS-IV NSW.
(3) A portion of the Neuse River [Index No. 27-(49.5)] from a point approximately 0.5 mile upstream of S.R.1201 (Johnston County intake) to S.R. 1201 (Johnston County intake) from Class WS-IV NSW to Class WS-IV NSW CA.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. July 1, 2012; November 1, 2007; July 1, 2004 (see SL 2001-361); August 1, 2002; August 1, 1998; April 1, 1997; September 1, 1996; July 1, 1996; April 1, 1994; August 3, 1992; July 1, 1991;
Amended Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).