

Regulatory Impact Analysis

Rule Citation Number: 15A NCAC 02B .0305 Watauga River Basin

Rule Topic: Proposed Reclassification of Eleven Waterbodies to High Quality Waters or Outstanding Resource Waters in the Watauga River Basin (Watauga County and Avery County)

DEQ Division: Department of Environmental Quality, Division of Water Resources

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Impact Summary:

Local government:	No
State government:	Yes
NCDOT:	No
Substantial Impact:	No

1. Necessity for the Rule Change

All surface freshwaters in North Carolina are assigned a primary classification by the Department of Environmental Quality (DEQ), Division of Water Resources (DWR) with the intent of protecting their designated usages. All the state's surface freshwaters must at least be protected for aquatic life propagation and survival, and maintenance of biological integrity, and secondary contact recreation (i.e., boating) (Class C). Other primary classifications provide protection for primary contact recreation (i.e., swimming) (Class B) and drinking water (Water Supply Classes I through V). DWR may add one or more supplemental classifications to a waterbody's primary classification. For example, NSW (Nutrient Sensitive Waters), Tr (Trout Waters), HQW (High Quality Waters), ORW (Outstanding Resource Waters), UWL (Unique Wetlands), and Sw (Swamp Waters) are all supplemental classifications that may be added to a waterbody's primary classification in order to provide additional protections to waters with special uses.

The Biological Assessment Branch of DWR's Water Sciences Section has requested eleven waterbodies in the Watauga River Basin (Green Ridge Branch, Harrison Branch, Upper Laurel Fork, Dutch Creek, Craborchard Creek, South Fork Ellison Branch, Laurel Creek, Little Beaverdam Creek, West Fork Rube Creek, Stone Mountain Branch, and Shawneehaw Creek) to be reclassified as HQW or ORW. These waters are currently classified as Class C, Class C Tr, or Class B Tr. All of these waters, except for Green Ridge Branch and Shawneehaw Creek, are

located in Watauga County. Portions of Green Ridge Branch and Shawneehaw Creek are located within Watauga and Avery Counties. The lower two-thirds of Shawneehaw Creek is located within the Town of Banner Elk (Avery County). The portion of the Town of Seven Devils in Watauga County contains part of the Dutch Creek watershed. Maps of the proposed HQW and ORW streams can be viewed on DEQ’s [Current Reclassifications Proposal webpage](#).

In 2020, the waters proposed to be reclassified as HQW and ORW were evaluated by DWR biologists in the Water Sciences Section and received an excellent water quality rating. This rating qualifies the waters for the HQW supplemental classification. In addition, DWR considers the ORW supplemental classification to be appropriate for seven of these waters because these waters also have at least one outstanding resource value. The proposed HQW and ORW supplemental classifications will require wastewater discharger and post-construction stormwater management requirements to help maintain the excellent water quality of these waters and protect their designated uses (requirements outlined below in Section 3). Under Article 21 (Water and Air Resources) of Chapter 143 of the North Carolina General Statutes, “it is the public policy of the State to maintain, protect, and enhance the water quality within North Carolina.”

2. Background

2.1 High Quality Waters Supplemental Classification

HQW is a supplemental classification that is intended for surface waters with excellent water quality. The purpose of the supplemental classification is to maintain the waters at a level beyond the minimum use protection provided by primary state water quality standards. Four waters are proposed for reclassification to add the supplemental HQW classification (Table 1). Each of these waters qualifies for the HQW classification because they have been rated as having excellent water quality.

Table 1. Streams in the Watauga River Basin proposed for reclassification as HQW

Name of Stream	Existing Classification	Proposed Classification
Little Beaverdam Creek	C Tr	C Tr HQW
West Fork Rube Creek	C	C HQW
Stone Mountain Branch	C	C HQW
Craborchard Creek	C Tr	C Tr HQW

2.2 Outstanding Resource Waters Supplemental Classification

ORW is a supplemental classification that is intended to protect surface waters that have excellent water quality and are of exceptional state or national ecological or recreational significance. To qualify as ORW, waters must be rated excellent and have at least one of the following outstanding resource values:

- outstanding fish or commercially important aquatic species habitat and fisheries;
- high level of water-based recreation or the potential for such recreation;

- a special designation such as a North Carolina or National Wild and Scenic River or a National Wildlife Refuge;
- important component of a state or national park or forest; or
- ecological or scientific significance (e.g., rare or endangered species habitat or areas of research or education).

Seven waters are proposed for reclassification to add the supplemental ORW classification (Table 2). Each of the waters qualifies for the ORW classification because they have excellent water quality and exhibit at least one of the resource values listed above.

Table 2. Streams in the Watauga River Basin proposed for reclassification as ORW

Name of Stream	Excellent Classification	Water Quality Rating	Outstanding Resource Value/s	Proposed Classification
Green Ridge Branch	C	Excellent	1, 2	C ORW
Harrison Branch	C	Excellent	1	C ORW
Upper Laurel Fork	C	Excellent	1	C ORW
Dutch Creek	B Tr	Excellent	3	B Tr ORW
South Fork Ellison Branch	C	Excellent	1	C ORW
Laurel Creek	C Tr	Excellent	1, 3	C Tr ORW
Shawneehaw Creek	C Tr	Excellent	3	C Tr ORW

¹*Ecological Significance – Rare aquatic insect and animal species
(Source: NC Natural Heritage Program, 2021)*

²*Important component of a state or national park – Grandfather Mountain State Park*

³*High level of water-based recreation or the potential for such recreation – a North Carolina Wildlife Resources Commission designated Public Mountain Trout Water
(Source: NC Wildlife Resources Commission)*

The proposed descriptions for the streams pertaining to this reclassification proposal are found in [draft rule 15A NCAC 02B .0305](#).

3. Impact Analysis

3.1 Regulatory Baseline

To understand the impact of the proposed rule changes, it is necessary to establish a regulatory baseline for comparison. For the purpose of this regulatory impact analysis, the following rules were used as a baseline for this proposed rule:

- [Rule 15A NCAC 02B .0305](#) (Watauga River Basin) assigns the eleven waterbodies the classification of either Class C, Class C Trout (Tr), or Class B Tr.
- [Rule 15A NCAC 02H .1021](#) (Non-Coastal County High Quality Waters and Outstanding Resource Waters) establishes the requirements for the applicability of HQW and ORW post-construction stormwater management requirements, project density options, and specific design requirements for control and treatment of stormwater. The rule applies to new development projects that are located in areas that drain to HQW and ORW classified waterbodies. The requirements of this rule are explained in more detail below in Section 3.2. The post-construction stormwater management requirements associated with the Watauga River HQW management zone already apply to a portion of four of the subject watersheds (Craborchard Creek, Laurel Creek, Stone Mountain Branch, and Green Ridge Branch), which reduces the potential impact of the proposed rulemaking for those four areas.

3.2 Change from Regulatory Baseline

New and Expanded Wastewater Discharges

If the reclassifications are approved, Water Quality Standards for High Quality Waters ([“Rule”](#)) would prohibit discharges from new single family residences and would require additional effluent limitations and treatment requirements for new and expanded National Pollutant Discharge Elimination System (NPDES) wastewater discharges. This Rule requires that new or expanded NPDES wastewater discharges meet provisions related to:

- effluent limitations for oxygen consuming wastes and total suspended solids;
- alternative methods to chlorination for disinfection if discharging to trout streams;
- treatment design for emergencies (e.g., stand-by power capability) or other reliability requirements specified in [Rule 15A NCAC 02H .0124](#);
- volume of treated wastewater (not to exceed 50% of the total instream flow under 7Q10 conditions); and
- safety factors for toxic substances.

For ORW waters, new and expanded wastewater discharges would not be allowed in the watershed in accordance with [Rule 15A NCAC 02B .0225](#) (Water Quality Standards for Outstanding Resource Waters).

Post-Construction Stormwater Control for New Development

If the reclassifications are approved, post-construction requirements would apply to development projects that require an Erosion and Sedimentation Control Plan (projects disturb one or more acres of land) and either are located within one mile of and draining to HQW classified waters or draining to ORW classified waters in the non-coastal counties of North Carolina in accordance with [Rule 15A NCAC 02H .1021](#).

Rule 15A NCAC 02H .1021 has two development options, the low density option and the high density option. The low density option permits development in the HQW and ORW watersheds up to and including 1 dwelling unit per acre or 12% built upon area and requires thirty foot vegetated setback from perennial and intermittent streams. The high density option is designed for projects with densities that exceed 1 dwelling unit per acre or 12% built upon area. It does not have a limit on development and requires thirty foot setbacks from perennial and intermittent streams.

The design requirements for post-construction stormwater controls are the same for low density and high density projects in ORW or HQW watersheds. Low density projects would be required to maximize dispersed flow through vegetated areas, minimize channelization of flow, and use vegetated conveyances or systems to convey stormwater runoff. High density projects would be required to meet either runoff treatment or runoff volume match requirements through stormwater control measures. These measures would have to treat the first inch of runoff from rainfall. A state-issued post-construction stormwater permit is required for a project that is subject to 15A NCAC 02H .1021. There is an application fee of \$505 for this permit. Plan review and approval for both low and high density developments is required for state post-construction stormwater permits.

3.3 Regulatory Impact

New and Expanding Wastewater Facilities

No NPDES wastewater discharge outfalls are located or planned in the proposed HQW and ORW areas according to DEQ's Central Office and Winston-Salem Regional Office water quality staffs. Further, the existing zoning regulations for the residential land in these areas also prohibit the construction of wastewater facilities. Thus, staff project no impact on new and expanding wastewater facilities from the proposed reclassifications.

New Development – Private Property Owners and Local Government: Watauga County, Avery County, Town of Banner Elk, and Town of Seven Devils

The water quality staff in DEQ's Winston Salem Regional Office are not aware of any future projects in Watauga County. There are no plans for development in the portions of Avery County located in the Green Ridge Branch watershed and the Shawneehaw Creek watershed according Avery County planning staff. Planning Department staffs for the Town of Banner Elk and the Town of Seven Devils have said that there are no planned or anticipated development projects in the portions of the proposed reclassification watersheds for which they have

jurisdiction. Therefore, there is no known near-term impact to private property owners and local government from the proposed reclassification is projected. Any impacts from restrictions on as-yet unplanned future development is unquantifiable as costs would be context-specific.

State Government - DEQ's Division of Water Resources (DWR) and Division of Energy, Mineral, and Land Resources (DEMLR)

DEQ DWR staff anticipates a one-time cost of approximately \$500 to the state. This cost is associated with updating the DEQ surface water classifications map. The cost was calculated as follows:

$$[\$50.52 \text{ staff cost/hour}] \times [8 \text{ hours}] + [\$101.04 \text{ overhead}] = \$505.20 \text{ (rounded to } \$500\text{)}.$$

“Staff cost/hour” is based on salary information from the North Carolina Office of State Human Resources as of July 1, 2021 (plus a 2.5% legislative increase effective July 2, 2022) and includes salary, payroll taxes, retirement, and health benefits. This task would be considered part of DEQ staff's regular duties; associated costs would be accounted for under the existing budget and would not require additional expenditures.

DEQ DEMLR staff issue the state post-construction stormwater permits and conducts review of the post-construction stormwater permits for projects in non-coastal county HQW and ORW areas. DWR is not aware of any new wastewater discharges or new developments planned or anticipated in the proposed reclassification areas. As such, it is unlikely that DEQ will realize costs associated with the proposed rulemaking beyond the one-time cost of updating its surface water classifications map.

North Carolina Department of Transportation (NCDOT) Environmental Permitting

NCDOT construction activities disturbing greater than one acre of land are regulated in accordance with the NCDOT statewide post-construction general permit (NPDES Permit No. NCS000250). NCDOT activities conducted under this permit are not subject to the HQW/ORW post-construction stormwater management requirements. NCDOT projects are subject to separate post-construction controls as outline in general permit. NCDOT would not be required to obtain a state post-construction stormwater permit and would not be required to pay the \$505 stormwater permit fee. For this reason, the proposed HQW/ORW reclassification would not impact NCDOT.

4. Environmental Impacts

Reclassifying the eleven waters to a more protective HQW/ORW classification will help maintain the excellent quality of these waters. Although there is no known development planned in the affected areas, the classifications will ensure that existing uses in place in the waters are protected from potential future development impacts in perpetuity.

15A NCAC 02B .0305 is proposed for amendment as follows:

15A NCAC 02B .0305 WATAUGA RIVER BASIN

(a) Classifications assigned to the waters within the Watauga River Basin are set forth in the Watauga River Basin Classification Schedule, which may be inspected at the following places:

- (1) the Internet at <https://deq.nc.gov/about/divisions/water-resources/water-planning/classification-standards/river-basin-classification> and
- (2) the following offices of the North Carolina Department of Environmental Quality:
 - (A) Asheville Regional Office
2090 US Highway 70
Swannanoa, North Carolina;
 - (B) Winston-Salem Regional Office
450 West Hanes Mill Road
Winston-Salem, North Carolina; and
 - (C) Division of Water Resources
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) Unnamed streams entering the State of Tennessee are classified "C."

(c) The Watauga River Basin Classification Schedule was amended effective:

- (1) August 12, 1979;
- (2) February 1, 1986;
- (3) October 1, 1987;
- (4) August 1, 1989;
- (5) August 1, 1990;
- (6) December 1, 1990;
- (7) April 1, 1992;
- (8) August 3, 1992;
- (9) February 1, 1993;
- (10) April 1, 1994;
- (11) August 1, 1998;
- (12) November 1, ~~2007-2007~~; and
- (13) September 1, 2023.

(d) The Watauga River Basin Classification Schedule was amended effective July 1, 1989 as follows:

- (1) Dutch Creek (Index No. 8-11) was reclassified from Class C-trout to Class B-trout.
- (2) Pond Creek (Index No. 8-20-2) from water supply intake (located just above Tamarack Road) to Beech Creek and all tributary waters were reclassified from Class WS-III to C.

(e) The Watauga River Basin Classification Schedule was amended effective December 1, 1990 with the reclassification of the Watauga River from the US Highway 321 bridge to the North Carolina/Tennessee state line from Class C to Class B.

(f) The Watauga River Basin Classification Schedule was amended effective April 1, 1992 with the reclassification of Pond Creek from Classes WS-III and C to Classes WS-III Trout and C Trout.

(g) The Watauga River Basin Classification Schedule 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 2B .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.

(h) The Watauga River Basin Classification Schedule was amended effective February 1, 1993 with the reclassification of Boone Fork (Index No. 8-7) and all tributary waters from Classes C Tr HQW and C HQW to Classes C Tr ORW and C ORW.

(i) The Watauga River Basin Classification Schedule was amended effective April 1, 1994 with the reclassification of the Elk River from Peavine Branch to the North Carolina/Tennessee state line [Index No. 8-22-(3)] from Class C Tr to Class B Tr.

(j) The Watauga River Basin Classification Schedule was amended effective August 1, 1998 with the reclassification of East Fork Pond Creek from its source to the backwater of Santis Lake, [Index No. 8-20-2-1.5] from Class WS-II Tr to Class WS-III Tr; the reclassification of West Fork Pond Creek (Santis Lake) [Index No. 8-20-2-1-(2)] from the backwaters of Santis Lake to Pond Creek from WS-II Tr CA to WS-III Tr CA; and the reclassification of the connecting stream of Lake Coffey [Index No. 8-20-2-2] from the dam at Lake Coffey to Pond Creek from WS-II Tr CA to C Tr.

(k) The Watauga River Basin Classification Schedule was amended effective November 1, 2007 with the reclassification of the Beech Creek Bog near Beech Creek [Index No. 8-20] to Class WL UWL. The North Carolina Division of Water Resources maintains a Geographic Information Systems data layer of the UWL.

(l) The Watauga River Basin Classification Schedule was amended effective September 1, 2023 with the reclassification of the following waterbodies:

(1) Green Ridge Branch (Index No. 8-3) and all tributary waters from source to Watauga River from Class C to Class C ORW.

(2) Harrison Branch (Index No. 8-10-1) and all tributary waters from source to Laurel Fork from Class C to Class C ORW.

(3) The portion of Upper Laurel Fork (Index No. 8-10-3) and all tributary waters from source to SR 103 from Class C to Class C ORW.

(4) The portion of Dutch Creek [Index No. 8-12-(0.5)] and all tributary waters from source to

- Pigeonroost Creek from Class B Tr to Class B Tr ORW.
- (5) Craborchard Creek (Index No. 8-12-3) and all tributary waters from source to Dutch Creek from Class C Tr to Class C Tr HQW.
- (6) The portion of South Fork Ellison Branch (Index No. 8-15-1-2) and all tributary waters from source to U.S. 421 from Class C to Class C ORW.
- (7) Laurel Creek (Index No. 8-17) and all tributary waters from source to Watauga River from Class C Tr to Class C Tr ORW, including Worley Creek (Index No. 8-17-1) from source to Laurel Creek from Class C Tr to Class C Tr ORW and Spice Branch (Creek) (Index No. 8-17-2) from source to Laurel Creek from Class C to Class C ORW.
- (8) The portion of Little Beaverdam Creek (Index No. 8-19-2) and all tributary waters from source to Fork Branch from Class C Tr to Class C Tr HQW, including Jones Branch (Index No. 8-19-2-1) from source to Little Beaverdam Creek from Class C to Class C HQW.
- (9) West Fork Rube Creek (Index No. 8-19-3-2) and all tributary waters from source to Rube Creek from Class C to Class C HQW.
- (10) The portion of Stone Mountain Branch (Index No. 8-21) and all tributary waters from source to an unnamed tributary located approximately 350 feet southwest of the intersection of SR 1206 and SR 1201 from Class C to Class C HQW.
- (11) Shawneehaw Creek (Index No. 8-22-7) and all tributary waters from source to Mill Pond, Elk River from Class C Tr to Class C Tr ORW.

History Note: Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);