# EXHIBIT 10

## A-2 Chattooga Classification history.pdf

### received from NC DEQ by email

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STATE OF NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT DIVISION OF ENVIRONMENTAL MANAGEMENT

REPORT OF PROCEEDINGS FOR THE PROPOSED RECLASSIFICATION OF PIRES CREEK IN THE HIWASSEE RIVER BASIN (CLAY COUNTY), GIPP CREEK IN THE HIWASSEE RIVER BASIN (CHEROKEE COUNTY), CATALOOCHEE CREEK IN THE FRENCH BROAD RIVER BASIN (HAYWOOD COUNTY), UPPER SOUTH FORK MILLS RIVER IN THE FRENCH BROAD RIVER BASIN (HENDERSON AND TRANSYLVANIA COUNTIES), WILSON CREEK IN THE CATAWBA RIVER BASIN (AVERY AND CALDWELL COUNTIES), ELK CREEK IN THE YADKIN-PEE DEE RIVER BASIN (WATAUGA AND WILKES COUNTIES), UPPER NANTAHALA RIVER IN THE LITTLE TENNESSEE RIVER BASIN AND SAVANNAH RIVER DRAINAGE AREA (MACON AND CLAY COUNTIES), AND SAVANNAH RIVER DRAINAGE AREA (MACON AND JACKSON COUNTIES)

PUBLIC HEARINGS AUGUST 1 THROUGH 4, 1988 RALEIGH, BOONE, FRANKLIN, AND ASHEVILLE, NORTH CAROLINA

> ENVIRONMENTAL MANAGEMENT COMMISSION RALEIGH, NORTH CAROLINA

Proposed ORW

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Upper Nantahala River Little Tennessee River Basin and Savannah River Drainage Area Clay and Macon Counties



2 the upper Nantahala River arges t plied The Nantahala River originates in Macon County, flowing in a northerly direction and forming the boundary between Macon and Clay ) GPD). Counties, North Carolina (see map on page \$-30). Over 95% of the 1 and watershed lies within the Nantahala National Forest and is Creek administered by the US Forest Service. The remaining 5% is under private ownership. Land use is primarily recreational such as rown camping, hiking, hunting and fishing. / A portion of the Appalachian ;everal Trail follows the ridge of the basin ./ The Nantahala is presently classified as & Trout waters with most tributaries having either a class C Trout or Class C rating (see Schedule of Classifications on page S-21). Major fish species include rainbow, brook and brown r trout as well as Kokanee salmon, k Creei A working group within the Department of Natural Resources and community Development led by the Natural Heritage Program nominated the Upper Nantahala River for ORW classification. This request was made as the Upper Nantahala appeared to gualify for ORW status based on the following cited reasons: ies, - excellent water quality (based on both chemical and t biological data) and fisheries habitat ing - unique features including four wetland bog systems - habitat for several rare plant and animal species - diverse fisheries habitat including fine trout fishing gical streams and Kokanee salmon spawning grounds er data gical DEM routinely collects both water quality and benthic data from k Creel an ambient station located near the confluence of the Nantahala licated River and Roaring Fork. Water quality data show consistantly high The dissolved oxygen concentrations and no indications of problems in eved to any other parameter. Benthic macroinvertebrate data indicate rved excellent water quality conditions. Taxa richness values have been above mountain criteria levels for "excellent" bioclassification at the for several years with a large number of intolerant benthic insect vater species collected in 1986 and 1984. 25. Major fish species include rainbow, brook and brown trout and pecies Kokanee salmon. In addition, several species of Special Concern and one species on the Endangered List can be found in the Upper Nantahala. led Creek Chattooga River streams lations The headwaters of the Chattooga River, including North Fowler per Creek, are located in the town of Cashiers and the county of of Jackson. About 12 river miles flow through North Carolina and en

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eventually form the border between South Carolina and Georgia. Major tributaries include Overflow Creek, Clear Creek, Big Creek, North and South Fowler Creek, and Norton Mill Creek (see map on Page S-31). Only the Overflow Creek watershed is largely free of development. The town of Highlands is located near the headwaters of Clear and Big Creeks. The Chattooga River basin in North <sup>F</sup> Carolina is a mosaic of National Forest lands and private land. The majority of the watershed is forested, and about one-half of the land is owned by the US Forest Service.

There is a strong economic incentive for residential development in the privately owned segments of the Chattooga River watershed, and there have been some associated requests for discharge permits in this basin. There are three existing dischargers in the proposed ORW area including two subdivisions and a municipal wastewater treatment plant. Four other permits have been issued for discharges (including the Authorizations to Construct) for a private residence, a church camp, and two golf courses. These have not been built, however, and therefore are no yet discharging.

The Chattooga River is classified B Trout with the majority of tributaries classified as C Trout or C waters (see Schedule of Classifications on page S-22). The Chattooga River has been designated as a National Wild and Scenic River from the Grimshaws bridge in North Carolina (SR 1107, Jackson County) to Lake Tugaloo in Georgia, a distance of approximately 50 miles. The designated area includes at least a mile wide corridor, including small portions of Norton Mill Creek, Cane Creek, Glade Creek, Scotsman Creek and South Fowler Creek.

The Chattooga River Basin was petitioned for consideration as ORW by the Rabun, Georgia Chapter of Trout Unlimited and Friends of Norton Mill Creek. This area was nominated as the entire watershed lies within the Nantahala National Forest and appeared suitable for the classification. Several reasons have been cited as the basis for this reclassification request including:

- excellent water quality in most of the watershed
- an outstanding native trout habitat and fisheries including eastern brook, rainbow, and brown trout
- recreational values associated with the Ellicott Rock Wilderness Area
- habitat for rare plant and animal species
- perpetuation and maintenance of the resource depend on maintaining the existing high level of water quality

A separate ORW request was received for Big Creek, tributary to Chattooga River, from Mr. Richard Melvin of Highlands, North Carolina. This request was in response to a proposed wastewater discharge to Big Creek.

In addition, a request was received from the Macon County Health Department to reclassify Clear Creek, tributary to Chattooga River, from Class C and C Trout to Class B and B Trout waters. The Health Department felt that Clear Creek is used extensively for swimming and other recreational uses.

The DEM staff conducted a study of the Chattooga River Basin in January 1988 and collected information on the chemical/physical and Diological characteristics of the river and several tributaries at 12 locations. This report can be found on page 70 of this handout. Most sites in the Chattooga River basin had very good water quality characterized by low conductivities, high dissolved oxygen and low nutrient concentrations. Fecal coliforms were detected only at the upstream site on Chattooga River, but at very low concentrations (30/100 ml). Residue values were elevated at 3 sites, indicating some land disturbance in those watersheds (Clear Creek, Upper Chattooga River, and Big Creek).

Biological data (benthic macroinvertebrates) indicate excellent water quality at 7 of the 12 sites (see map on page 78 for sample sites):

- two Chattooga stations
- Scotsman Creek
- Big Creek
- all three Overflow Creek stations

The remaining sites, with the exception of Norton Mill Creek, received a good bioclassification. It should be noted, however, that all of these sites contained species which are sensitive and intolerant to pollution impacts. Nonpoint source erosion appeared to be the cause for these ratings as siltation and bank erosion were observed along each of these creeks. Norton Mill Creek, although receiving only a good-fair rating, did contain a relatively large number of species which may suggest a habitat difference as opposed to any water guality difference.

Fisheries data was available from several investigations in North Carolina as well as from some studies conducted immediately below the State line in Georgia and South Carolina. Except for surveys of the Chattooga River in Georgia and South Carolina, there were no data available since 1978. The Department of Natural Resources and Community Development collected additional fish samples at 6 sites in March and April 1988 including: Lower Big Creek, Upper Chattooga River, South Fowler Creek, Scottsman Creek, Clear Creek, and West Overflow Creek. The principle intent was to assess the status of trout populations in tributary streams. Outstanding trout habitat existed in both the river and several tributaries: Overflow Creek, Scottsman Creek, and South Fowler dis Creek. It is believed that supplemental stocking of fingerling to trout could greatly improve trout fishing in these streams.

With respect to the specific reclassification request for ORW status in Big Creek, excellent water quality was found and trout densities were estimated at 4.9 pounds per acre. Although no evidence was observed of wild trout reproduction, it is believed that supplemental stocking of fingerling trout could greatly improve trout fishing in this stream.

Stocking discontinued prior to ORW designation With respect to the reclassification request for Clear Creek from Class C to Class B waters, 5 water quality samples were collected within a 30-day period for fecal coliform analyses and Clear Creek was found suitable for organized swimming.

#### RECOMMENDATIONS

The Hearing Officers and the Director recommend the following waterbodies be reclassified with a supplemental ORW designation as described for each:

<u>Fires Creek</u>- Based on DEM biological data and special studies, Fires Creek from its source to the Hiwassee River and including all tributaries;

<u>Gipp Creek</u>- Based on excellent water quality and information provided by the Natural Heritage Program, Gipp Creek from its source to Valley River, including all tributaries;

Cataloochee Creek- Based on DEM water quality data and other information provided by the Natural Heritage Program, Cataloochee Creek from its source to Waterville Lake, including all tributaries above the lake;

<u>Upper South Fork Mills River</u>- Based on DEM, US Forest Service, and Oak Ridge National Laboratory water quality data as well as supplemental information provided by the Natural Heritage Program, South Fork Mills River from its source to just above the confluence with Queen Creek, including all tributaries above the confluence with Queen Creek;

<u>Wilson Creek</u>- Based on DEM water quality data and information provided by the Natural Heritage Program, Wilson Creek from its source to Johns River and including all tributaries; and

Elk Creek-Based on DEM water quality data as well as fisheries information provided by the Wildlife Resources Commission, Elk Creek from its source to the Yadkin River, including all tributaries, and

<u>Upper Nantahala</u>- Based on DEM ambient monitoring results as well as information from the Natural Heritage Program, the Upper Nantahala River from its source to the confluence with Roaring Fork, including Roaring Fork and all tributaries.

<u>Chattooga River</u>- The Chattooga River Basin represents a case where there is not excellent water quality throughout the entire watershed. Only the portions of the Chattooga having excellent water quality are recommended for the ORW designation (see map on page S-31). Based on DEM water quality data and fisheries information provided by the Wildlife Resources Commission, the Chattooga River from its source to the North Carolina-Georgia state line, including the Overflow Creek watershed, the Big Creek watershed, and Scottsman Creek are recommended for ORW. Not recommended for ORW are North and South Fowler Creeks and associated tributaries, Green and Norton Mill Creeks, Cane Creek and associated tributaries, Ammons Branch, Glade and Bad Creeks, East Fork Chattooga River, Jacks Creek, and Clear Creek and associated tributaries.

It is not possible, however, to protect the outstanding resource values of a high quality waterbody when some of the tributary waters have a less stringent classification and associated standards. 15 NCAC 2B .0203, Protection of Waters Downstream of Receiving Waters, states that the quality of receiving waters shall be such that no impairment of best usage in any other class occurs due to waste from point and nonpoint sources. Therefore, the protection strategy developed for the ORW portion of the Chattooga is also recommended as a management stragegy for the undesignated ORW portions which drain directly to the North Carolina portion of the Chattooga River proper.

#### Protection Strategy for ORWs:

In making these recommendations for reclassification, the Hearing Officers and the Director have considered the requirements of General Statute 143-214.1(d). The addition of ORW to the existing classifications adds a narrative water quality standard (15 NCAC 2B .0216(c)) that requires the maintenance of existing water quality. Based upon this requirement, it is felt that issuance of any new NPDES permits to these proposed ORWs would endanger the existing high water quality. The majority of comments received at the public hearings supported this protection strategy. Therefore, it is recommended that no new wastewater dischargers be allowed to the ORW watersheds, and for all the proposed ORWs except the Chattooga River Basin, it is additionally recommended that no expansions of existing dischargers be allowed. In the Chattooga, it is recommended that no expansions of the pollutant loadings from existing dischargers be allowed.

It is also felt that by considering these areas as high quality waters, the protection of these waters from nonpoint source pollution is appropriate. It is therefore recommended that development activities within the ORW watersheds which require a Sedimentation/Erosion Control Plan must control the runoff from a one inch design storm as follows:

- A. Low Density Option: Developments which limit single family developments to one acre lots and other type developments to 12% built-upon area will be deemed to comply with this requirement. More stringent requirements may be required by the Environmental Management Commission in very sensitive areas.
- B. High Density Option: Higher density developments will be allowed if stormwater control systems (preferably wet detention ponds)' are installed, operated and maintained which control the runoff from all built-upon areas generated from

one inch of rainfall. The size of the control system must take into account the runoff from any pervious surfaces draining to the system. More stringent requirements may be required by the Environmental Management Commission in very sensitive areas.

#### Class B Waters:

<u>Clear Creek</u> of the Chattooga River basin meets water quality criteria for Class B waters. The Hearing Officers and the Director recommend that Clear Creek from its source to the North Carolina-Georgia state line also be reclassified from Class C to Class B waters.

rec All recommended changes to the Schedules of Classifications and Wr. Standards for the Hiwassee River Basin, the French Broad River Basin, the Catawba River Basin, the Yadkin-Pee Dee River Basin, and the Little Tennessee River Basin and Savannah River Drainage Area the are indicated beginning on page S-16. The Hearing Officers and the a1 Director have considered the studies pertaining to these nor waterbodies, public comment, character of the areas and bordering ex) regions, economic considerations, and past/present/future uses of Suj these areas. In taking this action, rules 15 NCAC 2B .0302, .0303, as .0304, .0308, and .0309 which reference the Schedules of hei Classifications for the Hiwassee River Basin, the Little Tennessee and River Basin and Savannah River Drainage Area, the French Broad di: River Basin, the Catawba River Basin, and the Yadkin-Pee Dee River Basin, respectively, will show that the Environmental Management Commission has revised the schedules. The proposed effective date Wi! in the North Carolina Register is March 1, 1989.

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