



Feb 22, 2010

Mr. Jeff Manning  
Supervisor, Classifications and Standards Unit  
Division of Water Quality  
North Carolina Department of Environment and Natural Resources  
1617 Mail Service Center  
Raleigh, NC 27699-1617

Re: Supplemental Reclassification of Streams in the Catawba and Yadkin River Basins to Trout Waters

In a letter dated January 31, 2005 to Mr. Alan Klimek, Director, Division of Water Quality, from Mr. Mallory Martin, Past President, North Carolina Chapter of the American Fisheries Society (NCAFS), Mr. Martin urged Mr. Klimek and his staff to reclassify streams or segments of streams to the highest and most appropriate water quality classification or supplementary classification to protect existing uses when existing fish or benthic macroinvertebrate data or the presence of unique aquatic communities support it. The Environmental Concerns Committee of the NCAFS has reviewed recently collected trout data gathered by the North Carolina Wildlife Resources Commission (WRC) from several streams in the Catawba and Yadkin River Basins to determine what streams that have documented populations of trout are not currently supplementally classified as Trout Waters (Tr) and to petition to reclassify those streams as Trout Waters. According to state water quality regulations (NCAC 2007), trout waters are freshwaters protected for natural trout propagation and survival of stocked trout. In addition, these waters have conditions which shall sustain and allow for trout propagation and survival of trout on a year-round basis.

It is the opinion of the NCAFS that these data support supplemental reclassification of these streams from their existing classification to Trout Waters. This letter summarizes these data and serves as an official petition to the North Carolina Division of Water Quality to proceed with reclassification of these streams. This request for supplemental reclassification to Trout Waters is the second of a series of requests that will be submitted by the NCAFS; in a letter dated October 30, 2008. Mr. Christian Waters, NCAFS Past President requested the reclassification of trout streams in the New and Watauga River Basins. Future requests will cover the Broad, French Broad, Little Tennessee, Savannah, and Hiwassee River Basins.

### **Supporting Documentation**

In the early 1990s, the WRC began sampling wild brook trout (*Salvelinus fontinalis*) populations in the western part of the state to identify their genetic origin. In the Catawba and Yadkin River Basins, 87 sites have been sampled (35 sites in the Catawba and 52 in the Yadkin) (Appendix

1). Eighty-one of the sites are on stream reaches already classified as Trout Waters (30 in the Catawba and 51 in the Yadkin). The brook trout populations are presumed to be extirpated in 3 of 6 streams not classified Trout Waters (i.e. Frankum, Friddle and Georges Creeks in the Catawba River Basin). Mills Creek and an unnamed tributary to Henry Fork in the Catawba Basin and Little Fork Creek in the Yadkin Basin are streams that are not classified as Trout Waters yet they currently support naturally reproducing brook trout populations as indicated by multiple age classes, or cohorts (Table 1). The presence of multiple cohorts is an indicator of natural reproductive success of the trout (NCDENR 2006).]

In addition to the brook trout genetics study, the WRC has collected data on the distribution of naturally-reproducing brown and rainbow trout populations in western NC streams as part of normal fishery resource survey and inventory activities. Of the sites sampled since the early 1990s, 9 wild brown and/or rainbow trout populations have been confirmed in streams or stream reaches in the Catawba and Yadkin River Basins that are not classified as Trout Waters (Table 1). Numbers and sizes of fish collected were not recorded for most sites, but the presence of multiple age-classes was usually noted.

Twelve streams in the Catawba and Yadkin River Basins qualify for reclassification to Trout Waters based upon the presence of naturally reproducing populations of brook, brown, or rainbow trout (Table 1). It is the recommendation of the NCAFS to the North Carolina Division of Water Quality that these 12 streams and all their named and unnamed tributaries from their source to their confluence be supplementally reclassified to Trout Waters (Table 2). The locations of these 12 streams are shown in the attachments to this letter (Appendix 2).

Thank you for your attention to this matter and please do not hesitate to contact Dave McHenry, Environmental Concerns Committee Chair, at 828-452-0422 if you would like to discuss our request.

Sincerely,



Chad Thomas, President  
North Carolina Chapter American Fisheries Society

### **Attachments**

Table 1. Trout data from select streams in the Catawba and Yadkin River Basins (Avery, Burke, Caldwell, McDowell, and Wilkes counties).

Table 2. Existing water quality classifications and proposed water quality classifications for sites that qualified as Trout Waters within the Catawba and Yadkin River Basins (Avery, Burke, Caldwell, McDowell, and Wilkes counties).

Appendix 1. Sites sampled in the Catawba and Yadkin River Basins as part of the North Carolina Wildlife Resources Commission study on the distribution and genetics of brook trout in western North Carolina. "n" = sample size.

Appendix 2. USGS 7.5" quad maps

**References**

- NCAC. 2007. North Carolina Administrative Code. Classifications and water quality standards applicable to surface waters and wetlands of North Carolina. 15A NCAC 2B .0200. Division of Water Quality. North Carolina Department of Environment and Natural Resources. Raleigh, NC. Amended effective May 01, 2007
- NCDENR. 2006. Use attainability study. A method for the reclassification of a stream segment to trout waters (Tr). May 01, 2006. Biological Assessment Unit. North Carolina Department of Environment and Natural Resources. Division of Water Quality. Environmental Sciences Section. Raleigh, NC.

**Table 1. Trout data from select streams in the Catawba and Yadkin River Basins (Avery, Burke, Caldwell, McDowell, and Wilkes counties).**

River Basin/ Stream	No. Trout	Total Length (mm)	Multiple Age Classes Present ?	Comments (Trout Species Present)
<b>Catawba River</b>				
Bill White Creek	*	*	yes	brown; many fish of multiple age classes
Buckwheat Branch	*	*	*	brown
Clark Branch	2	*	*	brown
Crossnore Creek	*	*	yes	brown; multiple age classes
Golden Creek	*	*	yes	brown
Jarrett Creek	*	*	yes	rainbow; multiple age classes
Long Branch	*	*	yes	rainbow; multiple age classes
Mills Creek	13	63-188	yes	brook
Stamey Branch	6	*	yes	brown; multiple age classes
UT Henry Fork	20	67-186	yes	brook
<b>Yadkin River</b>				
Little Fork Creek	20	83-170	yes	brook
Stony Fork	*	*	yes	brown; low density, multiple age classes

\* Data/observations not recorded/applicable.

**Table 2. Existing water quality classifications and proposed water quality classifications for sites that qualified as Trout Waters within the Catawba and Yadkin River Basins (Avery, Burke, Caldwell, McDowell, and Wilkes counties).**

River Basin/ Stream	Description	Index Number	Existing Classification	Proposed Classification
<b>Catawba River</b>				
Bill White Creek	From source to Linville River	11-29-11	C	C Tr
Buckwheat Branch	From source to Linville River	11-29-12	C	C Tr
Clark Branch	From source to Crossnore Creek	11-29-10-2-1	C	C Tr
Crossnore Creek	From source to Mill Timber Creek	11-29-10-2	C	C Tr
Golden Creek	From source to Linville River	11-29-13	C	C Tr
Jarrett Creek	From Old Fort Water Supply Intake to Mill Creek	11-7-10-(3)	C	C Tr
Long Branch	From source to China Creek	11-38-5-1-1	C	C Tr
Mills Creek	From source to Mulberry Creek	11-38-32-5	C HQW	C Tr HQW
Stamey Branch	From source to Linville River	11-29-13	C	C Tr
UT Henry Fork	From source to Morganton Water Intake	11-29-1-(1)	WS-V ORW	WS-V Tr ORW
<b>Yadkin River</b>				
Little Fork Creek	From source to North Prong Lewis Fork	12-31-1-5	C	C Tr
Stony Fork	From Wilkes County SR 1168 to Yadkin River	12-26-(7)	C	C Tr

**Appendix 1. Sites sampled in the Catawba and Yadkin River Basins as part of the North Carolina Wildlife Resources Commission study on the distribution and genetics of brook trout in western North Carolina. "n" = sample size.**

River Basin/Stream	USGS 1:24K Quad	Date	Latitude	Longitude	n	Genetic Origin	Index No.	Classification
<b>Catawba River</b>								
(A) Frankum Creek (incl. trib.)	Globe	2/10/04	36.049283	81.664028		Extirpated	11-38-32-9	C HQW
(A) Georges Creek	Globe	2/10/04	36.030458	81.658103		Extirpated	11-38-32-9-1	C HQW
(B) Mills Creek (incl. trib.)	Globe	8/10/04	36.069817	81.662861	13	Mixed	11-38-32-5	C HQW
(B) Friddle Creek	Globe	2/9/04	36.049733	81.655011		Extirpated	11-38-32-5-1	C HQW
Mulberry Creek	Globe	2/9/04	36.067003	81.630581	20	Mixed	11-38-32-(1)	C Tr ORW
Left Fork Mulberry Creek	Globe	1/8/04	36.0941433	81.6457927	20	Mixed	11-38-32-2	C Tr ORW
UT Anthony Creek (@ Headwaters Club)	Grandfather Mtn.	2/11/08	36.0896361	81.7737879	17	Mixed	11-38-10-3	C Tr
New Years Creek	Boone/Globe	5/10/94	36.1270137	81.6830772	23	Mixed	11-38-5-2	C Tr
North Harper Creek	Grandfather Mtn.	3/1/04	36.008647	81.853156	13	Mixed	11-38-34-14-2	C Tr ORW
Harper Creek	Chestnut Mtn.	5/15/08	35.9847383	81.856655	20	Pending	11-38-34-14	C Tr ORW
Hulls Branch	Chestnut Mtn.	5/2/08	35.9863804	81.8424554	14	Pending	11-38-34-14-1	C Tr ORW
Sassafrass Creek	Grandfather Mtn.	12/11/01	36.0355014	81.844316	20	Northern	11-38-34-11-1	C Tr ORW
(C) Webb Creek (incl. trib.)	Grandfather Mtn.	2/11/04	36.0481802	81.8214185		Northern (not tested)	11-38-34-11-3-3	C Tr ORW
(C) UT Webb Creek	Grandfather Mtn.	2/11/04	36.044336	81.822278	11	Northern (sample size too small to be definitive)	11-38-34-11-3-3	C Tr ORW
(D) Gragg Prong (incl. trib.)	Grandfather Mtn.	2/24/95	36.0334797	81.8043355	25	Mixed	11-38-34-11-3-3	C Tr ORW
(D) Major Branch	Grandfather Mtn.	2/24/95	36.0600114	81.8241698		Mixed (not tested)	11-38-34-11-3-2	C Tr ORW
(D) UT Major Branch	Grandfather Mtn.	2/24/95	36.0617734	81.820268		Mixed (not tested)	11-38-34-11-3-2	C Tr ORW
(D) Ling Branch	Grandfather Mtn.	2/24/95	36.0631552	81.8175112		Mixed(not tested)	11-38-34-11-3-1	C Tr ORW
Bucks Timber Creek	Grandfather Mtn.	2/11/04	36.075153	81.786286	20	Northern	11-38-34-6-1	C Tr ORW
Little Wilson Creek	Grandfather Mtn.	2/11/04	36.0909312	81.7941819	18	Northern	11-38-34-3	C Tr ORW
Wilson Creek	Grandfather Mtn.	2/11/04	36.0894111	81.8022855	20	Northern	11-38-34	B Tr ORW
Timbered Branch	Chestnut Mtn.	3/1/04	35.9413273	81.7914068		Extirpated	11-35-2-9	WS-III Tr HQW
Cranberry Creek	Chestnut Mtn.	9/14/94	35.976	-81.879	25	Mixed	11-35-2-4	WS-III Tr ORW
Buck Creek	Chestnut Mtn.	3/2/04	35.907003	81.860933	20	Northern	11-35-2-12-4	WS-III Tr ORW
Gingercake Creek	Chestnut Mtn.	12/11/01	35.9240991	81.8653122	20	Mixed	11-35-2-12-3	WS-III Tr ORW
Steels Creek	Chestnut Mtn.	8/11/04	35.945308	81.856667		Extirpated	11-35-2-12-(1)	WS-III Tr ORW
UT Steels Creek (@ USFS Rd. 496)	Chestnut Mtn.	8/11/04	35.9413001	81.863064	20	Mixed	11-35-2-12-2	WS-III Tr ORW
Upper Creek	Linville Falls	5/12/08	35.9596683	81.888163	20	Pending	11-35-2-(1)	WS-III Tr ORW
UT Linville River	Linville Falls	11/2/07	35.9573661	81.9253382	20	Southern	11-29-(4.5)	B Tr
Bunt Creek	Newland	11/2/07	36.0411994	81.8791248	8	Pending	11-29-6-1	C Tr
Mackey Creek	Old Fort	3/7/95	35.6929002	82.1657045	25	Southern	11-15-(1)	WS-I Tr HQW
Newberry Creek	Old Fort	5/2/97	35.688377	82.2270581	21	Mixed	11-10-9	C Tr
Bad Fork	Little Switzerland	7/14/04	35.791575	82.110172	3	Northern (sample size too small to be definitive)	11-24-14-5	WS-II Tr
Bee Rock Creek	Celo	7/14/04	35.793128	82.141186	20	Southern	11-24-14-2	WS-II Tr
Henry Fork	Benn Knob	8/9/04	35.596247	81.706086	20	Southern	11-29-1-(1)	WS-V ORW
<b>Yadkin River</b>								
Ramey Creek	Cumberland Knob		36.5140168	80.912085	24	Mixed	12-63-3-1	WS-II Tr HQW
Butler Creek	Roaring Gap	3/8/04	36.463228	80.911289	15	Mixed	12-62-6	B Tr ORW
UT Mitchell River (@ Haystack Rd. (SR 1328)	Roaring Gap	3/10/04	36.425647	80.9235	7	Mixed	12-62-(1)	B Tr ORW
UT Saddle Mountain Creek	Roaring Gap	5/9/94	36.4722433	80.9457178	25	Southern	12-62-5	B Tr ORW
Mill Creek	Roaring Gap	11/30/01	36.4565504	80.9427408	19	Mixed	12-62-4	B Tr ORW
Long Creek	Roaring Gap	3/9/04	36.449842	80.943961	10	Mixed	12-62-3	B Tr ORW
Stewart Fork	Roaring Gap	3/9/04	36.448497	80.961789	20	Mixed	12-62-2	B Tr ORW

<b>Yadkin River</b>									
UT Mitchell River (@ Surry/Alleghany Co. line)	Roaring Gap	3/9/04	36.4397214	80.9656906	20	Southern		12-62-(1)	B Tr ORW
Bear Creek (UT Mitchell R. on Devotion Estate)	Roaring Gap	3/10/04	36.431669	80.952903	20	Mixed		12-62-(1)	B Tr ORW
Garden Creek	Glade Valley	9/13/04	36.4157238	81.1092135	10	Mixed		12-46-4-6	C Tr ORW
Widows Creek	Glade Valley	6/2/94	36.4085611	81.0875053	25	Mixed		12-46-4-4	C Tr ORW
Rich Mountain Creek	Glade Valley	11/1/94	36.4122447	81.0538452	26	Mixed		12-46-4-2-2	C Tr ORW
Bullhead Creek	Glade Valley	3/11/04	36.4270863	81.0804031	7	Northern		12-46-4-2	C Tr ORW
Horse Cove Branch	Glade Valley	3/11/04	36.436478	81.074403	20	Mixed		12-46-4-2-1	C Tr ORW
Stone Mountain Creek	Glade Valley	2/12/04	36.3978516	81.0439325		Extirpated		12-46-4-3	C Tr
Harris Creek	Glade Valley	10/11/06	36.3989175	81.1229172	20	Pending		12-46-2-5-1	C Tr ORW
UT Harris Creek	Glade Valley	10/12/06	36.3966103	81.1151767	20	Pending		12-46-2-5-1	C Tr ORW
UT Garden Creek	Glade Valley	9/13/04	36.4198925	81.1152104	20	Southern		12-46-4-6	C Tr ORW
Lovelace Creek	Whitehead, N.C.	4/22/97	36.4080157	81.133597	25	Northern		12-46-2-3	C Tr
Clear Creek	Horse Gap	2/15/05	36.298147	81.338358	6	Southern* (sample size too small to be definitive)		12-40-2-3	WS-II Tr
Darnell Creek	Horse Gap	5/5/94	36.3543413	81.3262497	25	Southern		12-40-4-3	WS-II Tr
South Fork Reddies River	Horse Gap	1/8/08	36.2853814	81.3417547	13	Pending		12-40-3	WS-II Tr
North Prong Lewis Fork	Glendale Springs	3/30/04	36.264472	81.398458	19	Northern		12-31-1(1)	C Tr
Little Fork Creek	Purlear	11/29/01	36.237533	81.354489	20	Mixed		12-31-1-5	C
Little Fork	Glendale Springs	1/29/08	36.2654934	81.4159139	20	Pending		12-31-1-2	C Tr
Pumpkin Run	Maple Springs	2/10/04	36.214	81.391	14	Northern (sample size too small to be definitive)		12-31-2-5	C Tr
UT South Prong Lewis Fork (@ Harley)	Maple Springs	2/10/04	36.1845554	81.4070021		Extirpated		12-31-2-(1)	C Tr
Fall Creek (below Cascade Falls)	Maple Springs	2/3/95	36.241	81.436	28	Mixed		12-31-2-2	C Tr
(A) Fall Creek (above Cascade Falls on BRP incl. trib.)	Maple Springs	2/14/95	36.247	81.461	7	Northern		12-31-2-2	C Tr
(A) UT Fall Creek	Maple Springs					Northern (not tested)		12-31-2-2	C Tr
Wildcat Creek	Deep Gap	10/28/97	36.2109032	81.5141801	25	Mixed		12-26-3-1	C Tr
Laurel Branch	Maple Springs	1/7/04	36.169359	81.4594926		Extirpated		12-26-2	C Tr
UT Laurel Branch (1st below Wilkes/Wat. Co. line)	Maple Springs					Extirpated		12-26-2	C Tr
Stony Fork	Maple Springs	1/7/04	36.2165261	81.4833481		Extirpated		12-26-(1)	C Tr
Dugger Creek	Deep Gap	6/12/06	36.1501125	81.5394676	20	Pending		12-24-11	B Tr ORW
UT Laurel Creek	Deep Gap	1/17/08	36.1678089	81.5277948	12	Pending		12-24-8	C Tr ORW
South Fork Laurel Creek	Deep Gap	5/12/06	36.1674302	81.5537206	20	Pending		12-24-8-2	C Tr ORW
Laurel Creek	Deep Gap	11/20/07	36.1775762	81.5366649	20	Pending		12-24-8	C Tr ORW
Rockhouse Creek	Deep Gap	1/6/04	36.1298035	81.5893463	20	Northern		12-19-7	C Tr
(B) Buffalo Creek	Deep Gap		36.133654	81.5981689		Northern (not tested)		12-19	C Tr
(B) Spanish Oak Branch	Buffalo Cove	1/8/04	36.1235508	81.5949909	20	Northern		12-19-4	C Tr
Joes Fork	Deep Gap	1/6/04	36.1049213	81.542613	20	Mixed		12-19-11	C Tr
Dennis Creek	Buffalo Cove	2/22/95	36.100807	81.6028276	24	Mixed		12-7	C Tr
Ooten Creek	Buffalo Cove	1/8/04	36.0942326	81.6082065	20	Mixed		12-6	C Tr
Baily Camp Creek	Globe	10/15/98	36.1076267	81.6416177	25	Mixed		12-5	C Tr
UT Yadkin River (@ Caldwell/Watauga Co. line @ SR 1500)	Globe	1/6/04	36.1151725	81.6361518	20	Mixed		12-(1)	C Tr
(C) Yadkin River (headwaters)	Boone	10/28/97	36.133611	81.6309679	25	Mixed		12-(1)	C Tr
(C) UT to Yadkin River	Boone					Mixed (not tested)		12-(1)	C Tr
(C) Martin Branch	Boone					Mixed (not tested)		12-4	C Tr
(C) Horse Creek	Boone	3/11/04	36.436478	81.074403	20	Mixed (not tested)		12-3	C Tr
(C) Groundhog Branch	Boone					Mixed (not tested)		12-2	C Tr
Elk Creek	Deep Gap	3/27/08	36.1995485	81.5754174	20	Pending		12-24-(1)	B Tr ORW

## Appendix 2. USGS 7.5" quad maps – Trout Sample Sites













