



October 30, 2008

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 Waterbodies in the New and Watauga 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, President, North Carolina Chapter of the American Fisheries Society, 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 North Carolina Chapter of the American Fisheries Society has reviewed recently collected brook trout data gathered by the North Carolina Wildlife Resources Commission from several streams in the New and Watauga River Basins to determine what streams that have documented populations of brook trout and 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 North Carolina Chapter of the American Fisheries Society that these data support supplemental reclassification of these streams from their existing classification to Trout Waters (Tr). 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 first of a series of requests that will be submitted by the North Carolina Chapter of the American Fisheries Society; future requests will cover the Yadkin, Catawba, Broad, French Broad, Little Tennessee, Savannah, and Hiwassee River Basins.

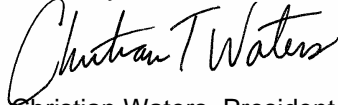
### **Supporting Documentation**

The North Carolina Wildlife Resources Commission has been conducting a study on the distribution and genetics of brook trout *Salvelinus fontinalis* populations in the western part of the state since the early 1990s. In the Watauga and New River Basins, 103 sites have been sampled (23 sites in the Watauga and 80 in the New) (Appendix 1). Eighty-three of the sites are already supplementally classified as Trout Waters (14 in the Watauga and 69 in the New). One site in the New River Basin did not qualify (Vile Creek, population presumed extinct); the remaining 9 sites in the Watauga and 10 sites in the New did qualify (Table 1). [Note: Total lengths of the fish were not available for some sites, but whenever 10-20 specimens were collected from other sites, the population was generally represented by multiple age classes. The presence of multiple ages is used as an indicator of natural reproductive success of the trout (NCDENR 2006).]

Nineteen streams in the Watauga and New River Basins qualified for reclassification to Trout Waters based upon the presence of a naturally reproducing population of brook trout, brown trout, or rainbow trout (Table 1). It is the recommendation of the North Carolina Chapter of the American Fisheries Society to the North Carolina Division of Water Quality that these 19 streams and all their named and unnamed tributaries from their source to their confluence be supplementally reclassified to Trout Waters (Table 2). The watersheds of these 19 streams are shown in the attachments to this letter.

Thank you for your attention to this matter and please do not hesitate to contact me if you would like to discuss this petition.

Sincerely,



Christian Waters, President  
North Carolina Chapter American Fisheries Society  
74 Brookwood Drive  
Smithfield, NC 27577

#### **Attachments**

Table 1. Brook trout data collected from select streams in the Watauga and New River Basins, Avery, Watauga, and Ashe counties

Table 2. Existing water quality classifications and proposed water quality classifications for sites that qualified as Trout Waters within the Watauga and New River Basins, Avery, Watauga, and Ashe counties.

Appendix 1. Sites sampled in the Watauga River and New River Basins as part of the North Carolina Wildlife Resources Commission study on the distribution and genetics of Brook trout in western North Carolina.

17 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. Brook trout data collected from select streams in the Watauga and New River Basins, Avery, Watauga, and Ashe counties.**

River Basin/Stream	No. Brook Trout	Total Length Range (mm)	Multiple Ages Present (Yes/No)?	Comments
<b>Watauga R Basin</b>				
Shanty Spring Br	20	---	Not available	
Cannon Br	10	---	Not available	
Bee Tree Cr	0	---	---	Only Brown trout present, abundant
Harrison Br	20	---	Not available	
N Fk Cove Cr	20	---	Not available	
Sharp Cr	1	---	Not available	Brown trout & rainbow trout also present
W Fk Rube Cr	6	---	Not available	
Ramp Br	20	76-176	Yes	
Leroy Cr	25	88 - 201	Yes	
<b>New R Basin</b>				
Unnamed Tributary S Fk New R	20	---	Not available	
M Fk S Fk New R (above Chetola Lake)	20	---	Not available	
Unnamed Tributary M Fk S Fk New R (@ substation)	20	89-212	Yes	
M Fk S Fk New R (@ headwaters near SR 1535)	26	91-163	Yes	Many young-of-year brook trout
Sumpter Cabin Cr	18	115-248	Yes	Brown trout & rainbow trout also present
Unnamed Tributary Cranberry Cr	20	---	Not available	
Couches Cr	3	---	Not available	
Unnamed Tributary Pine Swamp Cr	18	39-161	Yes	
Unnamed Tributary N Fk New R (@ Creston)	20	132-227	Yes	
Rock Cr	25	107-226	Yes	

**Table 2. Existing water quality classifications and proposed water quality classifications for sites that qualified as Trout Waters within the Watauga and New River Basins, Avery, Watauga, and Ashe counties.**

River Basin/Stream	Description	Index No.	Existing Classification	Proposed Classification
<b>Watauga R Basin</b>				
Shanty Spring Br	From source to Watauga R	8-2	C	C; Tr
Cannon Br	From source to Boone Fk	8-7-5	C; ORW	C; ORW; Tr
Bee Tree Cr	From source to Boone Fk	8-7-6	C; ORW	C; ORW; Tr
Harrison Br	From source to Laurel Cr	8-10-1	C	C; Tr
N Fk Cove Cr	From source to Cove Cr	8-15-2	C	C; Tr
Sharp Cr	From source to Cove Cr	8-15-6	C	C; Tr
W Fk Rube Cr	From source to Rube Cr	8-19-3-2	C	C; Tr
Ramp Br	From source to Elk R	8-22-12	C	C; Tr
Leroy Cr	From source to Elk R	8-22-9	C	C; Tr
<b>New R Basin</b>				
Unnamed Tributary S Fk New R	From source to S Fk New R	10-1-(20.5)	WS-V; HQW	WS-V; HQW; Tr
M Fk S Fk New R (@ headwaters near SR 1535)	From source to Brown Br	10-1-2-(1)	WS-IV;+	WS-IV;+; Tr
M Fk S Fk New R (above Chetola Lake)	From source to Brown Br	10-1-2-(1)	WS-IV;+	WS-IV;+; Tr
Unnamed Tributary M Fk S Fk New R (@ substation)	From source to M Fk S Fk New R	10-1-2-(1)	WS-IV;+	WS-IV;+; Tr
Sumpter Cabin Cr	M Fk S Fk New R	10-1-2-5	WS-IV;+	WS-IV;+; Tr
Unnamed Tributary Cranberry Cr	From source to Cranberry Cr	10-1-19	C;+	C;+; Tr
Couches Cr	From source to S Fk New R	10-1-21	C;+	C;+; Tr
Unnamed Tributary Pine Swamp Cr	From source to Pine Swamp Cr	10-1-24	C;+	C;+; Tr
Unnamed Tributary N Fk New R (@ Creston)	From source to N Fk New R	10-2-(12)	C;+	C;+; Tr
Rock Cr	From source to N Fk New R	10-2-7	C;+	C;+; Tr

**Appendix 1. Sites sampled in the Watauga River and New 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 7.5' Quad	Date	Latitude	Longitude	n	Brook Trout Genetic Origin	Index No.	Classification
<b>Watauga R Basin</b>								
Watauga R	Grandfather Mtn.	02/03/95	36.1215448	81.8304401	20	Southern	8-(1)	B;Tr,HQW
Shanty Spring Br	Valle Crucis	11/07/07	36.1253758	81.8201683	20	Results pending	8-2	C
Moody Mill Cr	Valle Crucis	circa 1990s	36.1546933	81.7707439	6	Southern (sample size too small to be definitive)	8-5	C;Tr
Cold Prong	Boone	05/03/04	36.1320110	81.7547310	0	Presumed extirpated	8-7-1	C;Tr,ORW
Cannon Br	Boone	circa 1990s	36.1620505	81.7239812	10	Southern (sample size too small to be definitive)	8-7-5	C; ORW
Bee Tree Cr	Boone	05/03/04	36.1472670	81.7537140	0	Presumed extirpated	8-7-6	C; ORW
Unnamed Tributary Laurel Fk (@ SR 1104/1105)	Boone	11/04/03	36.1951238	81.7141281	20	Mixed	8-10	C;Tr
Laurel Fk	Boone	11/07/07	36.1967140	81.7076549	20	Results pending	8-10	C;Tr
Harrison Br	Boone	01/04/07	36.1854005	81.7095864	20	Results pending	8-10-1	C
Crab Orchard Cr	Valle Crucis	11/03/03	36.1872020	81.8170773	0	Presumed extirpated	8-12-3	C;Tr
N Fk Cove Cr	Sherwood	07/13/05	36.3274908	81.7776488	20	Results pending	8-15-2	C
Sharp Cr	Zionville	11/04/03	36.2873122	81.7520725	1	Not determined	8-15-6	C
Laurel Cr	Valle Crucis	11/03/03	36.1943845	81.8304081	10	Northern (sample size too small to be definitive)	8-17	C;Tr
Worley Cr	Valle Crucis	11/03/03	36.2149634	81.8216606	20	Mixed	8-17-1	C;Tr
West Fk Rube Cr	Sherwood	01/30/08	36.3148003	81.8517110	6	Results pending	8-19-3-2	C
Beech Cr	Elk Park	10/03/03	36.2423598	81.8968951	0	Presumed extirpated	8-20	C;Tr
Pond Cr	Elk Park	05/10/94	36.2162693	81.8772586	25	Mixed	8-20-2	C;Tr
Pond Cr	Elk Park	10/06/94	36.2030975	81.8767914	20	Mixed	8-20-2	C;Tr
Unnamed Tributary to Elk R (upstream of Ramp Br)	Elk Park	02/11/04	36.1505828	81.9007725	20	Southern	8-22-(3)	C;Tr
Ramp Br	Elk Park	02/11/04	36.1556859	81.8987786	20	Southern	8-22-12	C
Greenbrier Cr	Elk Park	10/21/97	36.1269926	81.9222710	25	Mixed	8-22-16-2-1	C;Tr
Fall Cr	Elk Park	05/22/07	36.1950526	81.9551761	20	Results pending	8-22-20	C;Tr
Leroy Cr	Elk Park	04/25/97	36.1438245	81.8943231	25	Mixed	8-22-9	C
<b>New R Basin</b>								
Unnamed Tributary S Fk New R	Glendale Springs	01/30/08	36.3328930	81.4599757	20	Results pending	10-1-(20.5)	WS-V,HQW
M Fk New R (above Chetola Lake)	Boone	circa 1990s			20	Mixed	10-1-2-(1)	WS-IV;+
Unnamed Tributary M Fk New R (@ substation)	Boone	03/31/04	36.1391620	81.6672204	20	Mixed	10-1-2-(1)	WS-IV;+
M Fk New R (@ headwaters near SR 1535)	Boone	06/07/94	36.1286801	81.6568322	26	Mixed	10-1-2-(1)	WS-IV;+
Unnamed Tributary M Fk New R (@ Tweetsie RR)	Boone	11/19/07	36.1687212	81.6486848	20	Results pending	10-1-2-(6)	WS-IV;Tr;+
Sumpter Cabin Cr	Boone	03/31/04	36.1563638	81.6631491	18	Mixed	10-1-2-5	WS-IV;+
Brown Br	Boone	04/01/04	36.1556403	81.6500868	20	Mixed	10-1-2-7	WS-IV;Tr;+
Unnamed Tributary Aho Br	Boone	04/01/04			20	Mixed	10-1-2-8	WS-IV;Tr;+
Greer Br	Park	06/08/04	36.5092560	81.5790690	5	Mixed	10-1-2-10	WS-IV;Tr;+
Goshen Br	Deep Gap	circa 1990s	36.1837473	81.6108564	11	Mixed	10-1-3-4-1	WS-IV;Tr;+
Storey Br	Deep Gap	04/22/97	36.1692419	81.6078435	25	Mixed	10-1-3-4-1-1	WS-IV;Tr;+
Peak Cr	Horse Gap	10/29/97	36.3682293	81.2824725	25	Mixed	10-1-35-(1)	C;Tr;+
Winkler Cr (between old & new impoundments)	Boone	11/06/03	36.1752544	81.6899697	20	Southern	10-1-4-(1)	WS-II;Tr,HQW
Winkler Cr (above old Impoundment)	Boone	11/06/03	36.1726689	81.6925992	20	Southern	10-1-4-(1)	WS-II;Tr,HQW
Howards Cr (@ Potato Hill Lake)	Zionville	11/06/03	36.2772054	81.7173131	20	Mixed	10-1-9-(4.5)	WS-II;Tr,HQW, CA
Unnamed Tributary Howards Cr (@Sugarloaf Mtn.)	Zionville	09/14/04	36.2680897	81.7112320	9	Mixed	10-1-9-(6)	C;Tr,HQW
Jones Br	Zionville	07/18/05	36.2687846	81.7183243	20	Results pending	10-1-9-2	WS-II;Tr,HQW
Trivett Br	Zionville	07/18/05	36.2559070	81.7003412	20	Results pending	10-1-9-4	WS-II;Tr,HQW
Doe Fk	Zionville	07/18/05	36.2421540	81.6867840	20	Results pending	10-1-9-5-(1)	WS-II;Tr,HQW
Norris Br	Boone	07/18/05	36.2362881	81.6642773	20	Results pending	10-1-9-7-(2)	C;Tr;+

Appendix 1 (continued).

River Basin/Stream	USGS 7.5' Quad	Date	Latitude	Longitude	n	Brook Trout Genetic Origin	Index No.	Classification
<b>New R Basin</b>								
Meat Camp Cr	Zionville	11/05/03	36.3196431	81.6919865	20	Southern	10-1-10	C;Tr:+
Unnamed Tributary Meat Camp Cr (@ Green Cemetery)	Zionville	11/05/03	36.2916401	81.6738613	7	Mixed	10-1-10	C;Tr:+
Norris Fk	Zionville	11/05/03	36.2825932	81.6830482	20	Mixed	10-1-10-2	C;Tr:+
Rittle Fk	Zionville	11/06/03	36.3041046	81.6501660	20	Mixed	10-1-10-4	C;Tr:+
Elk Cr	Todd	05/17/94	36.3346344	81.5972056	20	Southern	10-1-15	C;Tr:+
Unnamed Tributary Pine Orchard Cr	Zionville	11/06/03	36.3183670	81.6350545	20	Southern	10-1-15	C;Tr:+
Pine Orchard Cr	Zionville	11/06/03	36.3279872	81.6367979	20	Southern	10-1-15-1	C;Tr:+
Unnamed Tributary Cranberry Cr	Laurel Springs	01/06/06	36.4275894	81.2857590	20	Results pending	10-1-19	C:+
Couches Cr	Todd	03/29/04	36.3089750	81.5245610	3	Not determined	10-1-21	C:+
Old Fields Cr	Todd	03/29/04	36.3666420	81.5344280	19	Southern	10-1-22-(0.3)	C;Tr:+
Call Cr	Todd	10/29/97	36.3375609	81.5519893	25	Southern	10-1-22-1	C;Tr,ORW
Gap Cr	Deep Gap	01/04/07	36.2409489	81.5382270	20	Results pending	10-1-23	C;Tr
Unnamed Tributary Pine Swamp Cr	Glendale Springs	04/04/04	36.2923410	81.4483302	18	Results pending	10-1-24	C:+
East Fk Pine Swamp Cr	Glendale Springs	08/04/04	36.2838079	81.4351735	20	Southern	10-1-24-1	C;Tr:+
West Fk Pine Swamp Cr	Glendale Springs	04/04/04	36.2661567	81.4775217	20	Southern	10-1-24-2	C;Tr:+
Unnamed Tributary W Fk Pine Swamp Cr	Glendale Springs	10/29/97	36.2663635	81.4531236	25	Southern	10-1-24-2-1	C;Tr:+
Roan Cr	Laurel Springs	06/10/04	36.3794030	81.3406510	8	Southern (sample size too small to be definitive)	10-1-31-(1)	C;Tr:+
Ezra Fk	Jefferson	01/04/07	36.4267603	81.4539450	20	Results pending	10-1-32-1	C;Tr:+
Ezra Fk	Jefferson	11/08/07	36.4266562	81.4539442	20	Results pending	10-1-32-1	C;Tr:+
Meadow Fk	Whitehead	06/10/04	36.4243920	81.1974580	20	Mixed	10-1-37-2	B;Tr:+
Piney Fk	Whitehead	02/02/95	36.4367200	81.2190483	25	Southern	10-1-37-3	B;Tr:+
Unnamed Tributary Big Pine Cr	Roaring Gap	circa 1990s	36.4803248	80.9715871	20	Mixed	10-2-(12)	C;Tr:+
Unnamed Tributary N Fk New R (@ Creston)	Warrensville	03/22/05	36.4268300	81.6133940	20	Mixed	10-2-(12)	C:+
South Br	Zionville	04/21/97	36.3510829	81.6923864	24	Mixed	10-2-4	C;Tr:+
Snyder Br	Zionville	06/08/04	36.3541750	81.6766970	20	Mixed	10-2-5	C;Tr:+
Rock Cr	Baldwin Gap	10/05/98	36.4296292	81.6908282	25	Mixed	10-2-7	C:+
Hoskin Fk	Zionville	03/21/05	36.3716060	81.7124750	20	Mixed	10-2-7	C;Tr:+
Brush Fk	Baldwin Gap	10/05/98	36.4064837	81.7158860	25	Mixed	10-2-8	C;Tr:+
Roundabout Cr	Baldwin Gap	06/08/04	36.4555720	81.6973830	20	Mixed	10-2-10	C;Tr:+
Skin Camp Br (Unnamed Tributary Three Top Cr)	Warrensville	01/05/06	36.3749868	81.5996959	20	Results pending	10-2-13	C;Tr:+
Bald Fk (Unnamed Tributary Three Top Cr)	Todd	01/05/06	36.3573423	81.6159101	20	Results pending	10-2-13	C;Tr:+
Three Top Cr (@ Three Top Mtn. Game Land)	Warrensville	05/16/94	36.3775894	81.5730504	25	Southern	10-2-13	C;Tr:+
Three Top Cr (@ Three Top Mtn. Game Land)	Warrensville	10/06/94	36.3776240	81.5678596	20	Southern	10-2-13	C;Tr:+
Ben Bolen Cr	Warrensville	01/05/06	36.4012654	81.5885548	6	Results pending	10-2-13-2	C;Tr:+
Long Hope Cr	Zionville	05/17/04	36.3542686	81.6485370	25	Southern	10-2-13-3	C;Tr:+
Unnamed Tributary Big Laurel Cr (Below Flatwood)	Grayson	07/20/05	36.5479180	81.6603131	20	Results pending	10-2-14	C;Tr:+
Unnamed Tributary Big Laurel Cr (Above beaver ponds)	Grayson	07/20/05	36.5258384	81.6704962	20	Results pending	10-2-14	C;Tr:+
Unnamed Tributary Big Laurel Cr (Denny Hollow)	Grayson	07/20/05	36.5547494	81.6693876	20	Results pending	10-2-14	C;Tr:+
Dixon Cr	Grayson	04/21/97	36.5508510	81.6796127	22	Southern	10-2-14-1	C;Tr:+
Kilby Cr	Grayson	07/20/05	36.5283912	81.6843392	20	Results pending	10-2-14-2	C;Tr:+
Roaring Fk	Grayson	06/08/04	36.5147638	81.6535850	20	Mixed	10-2-14-7	C;Tr:+
E Fk Roaring Fk	Grayson	06/09/04	36.5054486	81.6451105	20	Mixed	10-2-14-7-1	C;Tr:+
Buffalo Cr	Warrensville	02/14/04	36.4148366	81.5579033	21	Mixed	10-2-20	C;Tr:+
Unnamed Tributary Buffalo Cr (@ Buck Mtn.)	Warrensville	03/30/04	36.3957830	81.5316420	20	Mixed	10-2-20	C;Tr:+
Unnamed Tributary Buffalo Cr (@ Smethport)	Warrensville	08/04/04	36.4267890	81.5184970	0	Presumed extirpated	10-2-20	C;Tr:+

Appendix 1 (continued).

River Basin/Stream	USGS 7.5' Quad	Date	Latitude	Longitude	n	Brook Trout Genetic Origin	Index No.	Classification
<b>New R Basin</b>								
Unnamed Tributary Big Horse Cr (above Ripshin Br at Va. state line)	Park	06/07/04	36.5832530	81.6300690	20	Southern	10-2-21-(1)	C;Tr:+
Ripshin Br	Park	06/07/04	36.5732750	81.6104810	14	Mixed	10-2-21-3	C;Tr,HQW
Unnamed Tributary Little Horse Cr (@ Horse Cr Church)	Park	10/06/98	36.5530170	81.6090860	22	Mixed	10-2-21-8	C;Tr:+
Unnamed Tributary Little Horse Cr (@ Horse Cr Church)	Park	06/07/04	36.5530170	81.6090860	16	Southern	10-2-21-8	C;Tr:+
Little Phoenix Cr	Jefferson	06/06/94	36.4515302	81.4487229	21	Mixed	10-2-23	C;Tr:+
Silas Cr	Grassy Creek	11/08/07	36.5228637	81.4680547	16	Results pending	10-2-24	C;Tr:+
Jerd Br	Park	07/21/05	36.5535323	81.5138740	20	Results pending	10-2-27-3	C;Tr:+
Little Glade Cr	Glade Valley	01/03/07	36.4405583	81.0449333	5	Results pending	10-9-10-3	C;Tr
Rock Br	Glade Valley	02/16/05	36.4482454	81.0389874	10	Mixed	10-9-10-3-2	C;Tr
Cheek Br	Whitehead	02/16/05	36.4636610	81.1835390	13	Mixed	10-9-3	C;Tr
Waterfalls Cr	Whitehead	02/12/04	36.4365800	81.1449596	14	Mixed	10-9-4	C;Tr
Pine Swamp Cr	Glade Valley	08/03/04	36.4580241	81.1165665	0	Presumed extirpated	10-9-5	C;Tr
Unnamed Tributary Little Phoenix Cr	Jefferson	06/08/04	36.4622133	81.4551829	18	Mixed	10-9-7	C;Tr:+
Vile Cr	Sparta East	08/03/04	36.5244456	81.1167859	0	Presumed extirpated	10-9-8	C
Glade Cr	Glade Valley	01/06/06	36.4493635	81.0835415	20	Results pending	10-9-9	C;Tr