# TROUT UNLIMITED in the Southern Appalachians
# ANNUAL PERFORMANCE REPORT: APRIL 1, 2018 – DECEMBER 31, 2018

**Submitted 1/9/2019**

**Agreement 117-PA-11081117-015**

**Project Code: SEFSR8**

## Southern Appalachian Aquatic Habitat Connectivity Partnership

The terms of this cooperative agreement stipulate that Trout Unlimited (TU) is to provide ANNUAL performance reports to the US Forest Service (USFS) related to the terms and expectations set forth in the agreement. The last performance report was submitted on May 22, 2018. This one is being submitted on January 9, 2019 and captures the work performed for the remainder of the 2018 calendar year. From this point forward, performance reports will adhere to the end-of-calendar year format.

The partnership between Trout Unlimited and US Forest Service Region 8 has produced numerous gains over the last year in support of good management of native and wild trout and the coldwater ecosystem in the southern Appalachians on national forest system lands and neighboring properties. TU is pleased to report on the following accomplishments:

- Two coldwater conservation projects constructed – private lands adjacent to Cherokee National Forest (CNF)
- One Aquatic Organism Passage (AOP) project in process of design - Wolf Creek in the CNF
- Citizen Science program developed and started
- Wilson Creek Wild & Scenic River Initiative developed and started
- All Lands Initiative on-go
- $57,500 Awarded from grant for Sky Island Citizen Science & Coldwater Conservation Plan
- Proposal submitted to National Forest Foundation for Treasured Landscape projects in Wilson Creek and Sky Island focal areas
- Active communications with TU Chapters & Councils in the region

We used USFS and Southern Appalachian Highlands Conservancy dollars to construct the coldwater conservation projects. We used USFS and a broad array of private funders to kick-off the Wilson Creek Wild and Scenic River initiative. The 20% matching requirement under this agreement has been far exceeded (see financial report).

### I. Construction of 2 Coldwater Conservation Projects

#### A) Hampton Creek Cove Farm Access Path Re-Construction

TU partnered with the Southern Appalachian Highlands Conservancy to re-construct a farm access path and ford at the Hampton Creek Cove State Natural Area and Working Farm in Carter County, Tennessee, which is property that backs up to the Cherokee National Forest at the Roan Highlands in the upper Doe

River watershed. The project was on Left Prong Hampton Creek, which is a Brook Trout stream that was the subject of a Brook Trout restoration project several years ago undertaken by the Tennessee State Wildlife Agency. The project area is located squarely in the middle of a 7,841 acre Brook Trout habitat patch that was assigned an 'Enhance Stronghold' conservation strategy in TU's own GIS-based Brook Trout Conservation Portfolio and Range-Wide Assessment. Other partners on the project included the Tennessee Division of Natural Areas and USDA-Natural Resources Conservation Service. TU contracted this project for a cost of $8,480 and sub-contracted the construction to South Core Environmental, a heavy equipment landscape contractor from Asheville, NC. The project's primary purpose was to remove a significant sediment source to Left Prong Hampton Creek from the heavily eroded farm path and concentrate livestock access across the creek to one stable ford. Fencing is to be undertaken at a later date (potentially by the Overmountain Chapter of TU) to keep cattle out of the creek elsewhere on the property. Long term plans include the installation of pedestrian bridges on the Overmountain Victory Trail across the creek to facilitate hiker access to the Roan Highlands. TU may be asked to install these bridges, which will serve a dual function of protecting streambanks.

**B) Little Cove Creek Collapsed Bridge Removal & Temporary Access Re-Build**

The Southern Appalachian Highlands Conservancy owns a conservation property several miles away from the Hampton Creek Cove project site on another Brook Trout stream called Little Cove Creek in the upper Doe River watershed. The Little Cove Creek project site is also in Carter County and backs up to the Cherokee National Forest at the Roan Highlands. During a hurricane in 2016, their bridge was washed out, falling into the stream and damming up the creek which then spilled over into their gravel access road creating severe gully erosion that washed back into Little Cove Creek. This stream is also native Brook Trout waters and in fact was the stream from which Brook Trout were collected for the

restoration at Hampton Creek. The project site is located within a 3,778 acre of Brook Trout habitat that has been assigned the 'Restore Persistent Populations and Habitat' conservation strategy. The purpose of this project was to remove the collapsed bridge so that it would no longer serve as a dam during high flow events, remediate the gravel road and build a temporary bridge in place of the old one so that the Conservancy could access and maintain the property. Road remediation involved regrading gullies, re-gravelling the surface and constructing water bars and wing ditches to move water off the road prior to it becoming an erosion hazard. SAHC paid TU $12,585, which we then used to contract with South Core Environmental to construct the project. Our work removed a sediment source and ongoing hazard to the stability of this stream and its banks. If this project were not undertaken, the floods in late December 2018 would have likely caused catastrophic bank failure and sedimentation problems in this otherwise stunningly pristine native trout stream. Eventually, SAHC will build a permanent stream crossing and TU stands ready to assist them should they need it.

**II. <u>One AOP in Process of Design</u>**

Wolf Creek is located in the French Broad River watershed in the Cherokee National Forest in Cocke County, Tennessee. As part of its watershed condition framework planning process, the CNF identified the Wolf Creek watershed as a priority watershed for restoration. Over several years, the CNF has accomplished all of its action items except for removing the culverts on upper Wolf Creek and replacing them with an aquatic organism passage (AOP) friendly crossing. Wolf Creek is a Brook Trout stream and the project is located in a 2,322 acre Brook Trout habitat patch as identified in TU's own GIS-based Conservation Portfolio as a 'Restore Other Populations' conservation strategy. The CNF has entered into agreement with TU for survey and design assistance, allocating $9,272 toward the effort thus far with

TU's responsibility to raise the remaining funds for design which will likely cost a total of $15,000~. TU has contracted with Wildlands Engineering out of Asheville NC who specializes in this type of work. Wildlands has surveyed the area and is in process of developing a conceptual design to share with TU and the CNF by late January 2019. The intent, after obtaining a final design, is to take this project to construction in the summer of 2019. The current estimate for construction is $75,000. Once complete, this AOP project will ensure ¾ of a mile of passage for Brook trout in the headwaters of Wolf Creek (a substantial waterfall is a natural barrier downstream) and will enable the CNF to move confidently to other watersheds with the recognition that they have implemented every project outlined in the Wolf Creek restoration plan. This watershed contains a lot of Hemlock that are dying off and dropping into the stream. While the adverse consequences of massive Hemlock die-off are not being underestimated, perhaps the silver lining – at least in the relative short term - is the amount of coarse woody material dropping into the stream and creating habitat diversity that may well be a boon to the Brook Trout populations.

III. **Citizen Science Program Developed and Started**

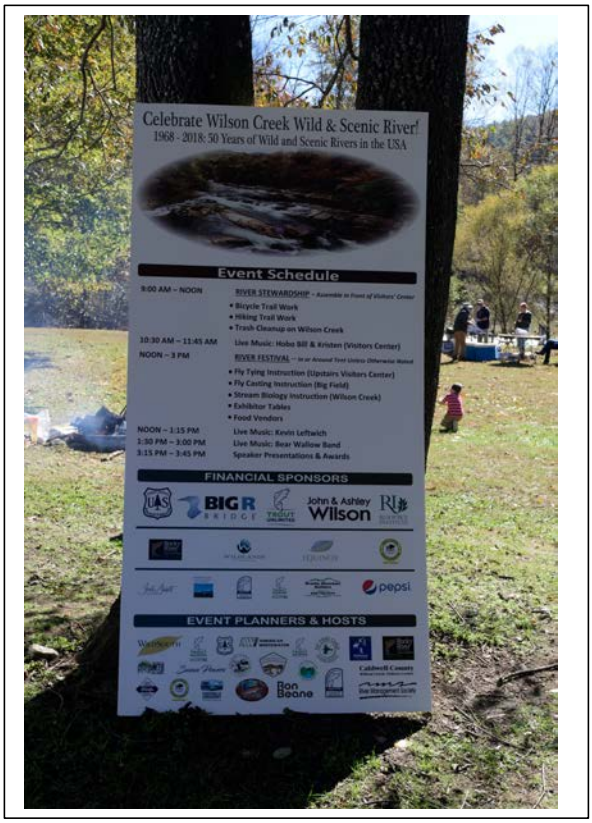
The citizen science program is moving forward full steam with particular focus in the Sky Island and Wilson Creek Wild and Scenic River focal areas. TU collaborated with Brady Dodd (Forest Hydrologist - National Forests in NC), Lorie Stroup (Fisheries Biologist-Pisgah National Forest), and Scott Loftis (Aquatic Habitat Coordinator-NC Wildlife Resources Commission) to develop a sedimentation survey protocol for use on roads and trails. After six versions, this survey instrument is complete. Jake Rash, NC Wildlife Resources Commission coldwater research coordinator, is collaborating with TU's GIS Analyst Matt Mayfield and taking the survey form and turning it into a hand-held electronic survey instrument using ArcGIS Online's Survey123 application. We have held three trainings involving 20 volunteers and had to postpone a fourth due to an 18 inch snow event. All totaled, our volunteers have contributed 120 hours toward this effort on the training alone, which has a value of $2,896. In addition to the sedimentation survey, TU is also training volunteers on a fish passage barrier survey using the Southeast Aquatic Resources Partnership (SARP) protocol developed and managed by the US Fish and Wildlife Service and various state wildlife agencies. We had four people attend one training in November. We had two more training dates scheduled for December for which six people were registered, but we had to postpone this event due to the massive snowstorm creating unsafe travel and field conditions. The NC Trout Unlimited State Council recently broadcast an on-line magazine, its first publication in over a dozen years, to 4,500 TU members statewide. This magazine had a feature article on the citizen science program with an interview from Andy Brown.

## IV. Wilson Creek Wild & Scenic River Initiative Developed & Started

The Wilson Creek initiative is underway and a more thorough performance report is being submitted to the USFS under that specific agreement. For reporting purposes here, key information includes:

- The agreement has been signed, allocating $475,000 in USFS funding to TU with the understanding that TU will generate an additional $105,527 in cash and $20,000 of in-kind services at minimum.
- In exchange for the USFS cash investment, TU will develop and implement a citizen science based watershed assessment, develop a list of priority coldwater conservation projects for long term implementation, construct an AOP on Thorpes Creek at the Mortimer Campground, remediate FS Roads 192 and 451, and close some non-forest system trails and build new steps in the Wilson Creek gorge.
- This agreement expires on October 31, 2023.

To kick-off the watershed assessment, TU convened 19 other partner organizations to plan and host a 50th Anniversary Celebration of the nation's Wild and Scenic Rivers Act. The event was held November 3rd in Wilson Creek. Approximately 300 persons attended. The in-kind contribution from these partner organizations has a value of over $7,200. In addition to the partners who planned and host the event, we collectively generated financial sponsorships from 16 organizations who contributed $8,639 in cash or in-kind sponsorships. The event ultimately had a price tag of $6,197.38 and generated a cash revenue of $6,441 for a total profit of $243.62.



## V. All Lands Initiative

Allen Nicholas, Forests Supervisor for the National Forests in North Carolina, envisions a forest restoration, stewardship and management strategy that does not stop at national forest land boundaries but actively engages private landowners and state and local agencies that serve them. TU agrees with this sentiment. Since cold water and trout don't stop at the national forest boundary, neither does our attention. The NFsNC has held two meetings thus far involving the USDA Natural Resources Conservation Service, State of NC and mountain county Soil and Water Conservation Districts, NC Forest Service, NC Wildlife Resources Commission, The Nature Conservancy and Trout Unlimited to explore and develop this concept further. TU is in the process of collaborating on a written document outlining this vision and plan - focusing with Grandfather District Ranger Nick Larson and NRCS Regional Supervisor Mark Ferguson on the chapters associate with improving water quality and aquatic habitat. While talk of the All Lands Initiative has been going on for some time, the effort started gaining traction in October, November and December 2018. We hope to prototype the work on the ground perhaps in Wilson Creek and Sky Island focal areas. The federal government shutdown has put a temporary hold on this initiative.

## VI. $57,500 Grant Award

TU applied for a planning grant from the NC Clean Water Management Trust Fund in February 2018 and after responding to questions and providing followup details throughout the year, we learned in November 2018 that our proposal – entitled Sky Island Coldwater Conservation Plan - was indeed funded. This grant will expire on April 30, 2020. The grant will fund citizen science efforts, landowner outreach, data analysis and the prioritization of a list of coldwater conservation projects, and preliminary designs for three projects – all within the Sky Island project area. As a reminder, Sky Island is a simpler way of saying the headwaters of the Davidson, S & N Fork Mills, Pigeon, N Fork French Broad, Tuckaseigee Rivers and Cathey's Creek. TU was awarded $57,500 in exchange for a match of $89,000 in cash and in-kind services from the US Forest Service, NC Wildlife Resources Commission, Citizen scientists and several other sources.

## VII. National Forest Foundation Treasured Landscape Proposal

TU's Coldwater Conservation Manager for the Southern Appalachians, Andy Brown, met with the National Forest Foundation regional representative, Mark Shelley on two different occasions since the spring of 2018. Discussions were held about TU's vision, strategy and action items in the region and how they dovetail with NFF's Treasured Landscape Initiative. On December 6, 2018 TU submitted a list of immediate, shovel-ready coldwater conservation projects that are located either in the Wilson Creek or Sky Island focal areas and that have also been previously brought to NFF's attention by the National Forests in NC as Treasured Landscape projects. We are hopeful that NFF will bring some additional dollars to the table to extend NFsNC's investments planned for the following:

- Thorpes Creek AOP at Mortimer Campground (Wilson Creek) – OUR REQUEST $60,000
- Pisgah Forest Rain Gardens on Highway 276 (Sky Island) – OUR REQUEST $29,000
- Cove Creek Group Camp AOP (Sky Island) – OUR REQUEST $80,000

## VIII. Active Communications with TU Chapters & Councils

At last count, there are 36 Trout Unlimited chapters spread throughout the southern Appalachians in north Georgia, upstate South Carolina, western North Carolina and east Tennessee. Andy has a goal of attending/speaking at one chapter per month. Additionally, Andy is actively seeking ways of engaging TU chapters and councils in the work that he is involved with. Since March 2018, Andy has made presentations to the Mountain Bridge chapter in South Carolina and attended one SC Council meeting. In North Carolina, Andy has presented to the Unaka, Tuckaseigee, Land of Sky, and Table Rock chapters. Additionally, Andy worked extensively from July until November with the Rocky River, Table Rock and Hickory Chapters on the 50th Anniversary Celebration of the nation's Wild and Scenic Rivers Act held at Wilson Creek on November 3rd, 2018. As well, Andy is actively recuiting volunteers from South Carolina chapters in the citizen science program and is developing relationships with SC chapter members at the various trainings. Andy routinely communicates with the current NC Council chair, Mike Mihalas. Conversations over the last year have revolved around hiring TU's new volunteer operations coordinator for the southeast, decisionmaking for TU's coldwater land conservation fund for the southern Appalachians, and an upcoming weekend conservation workshop that NCTU wants to put on for TU membership in the region in 2019. Andy was also present and presented at the USFS-NCWRC-TU Cooperator's Meeting in April. Unfortunately, current work demands as outlined in this report have precluded Andy from establishing relationships in North Georgia. And while there is work going on in east Tennessee, Andy's relationships with TU chapters there have been limited. Getting into north Georgia and east Tennessee and building relationships with the membership there is a high priority for 2019, as well as helping to develop some projects with TU chapter members and Forest Service biologist Keith Whalen in South Carolina.