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From: Chattooga Conservancy
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March 19, 2018

RE: Southside Project draft Environmental Assessment

The Chattooga Conservancy submits these comments regarding the Southside Project, Draft Environmental Assessment (hereinafter referred to as "Southside EA," "EA" or "draft EA"), dated February 2018.

The Chattooga Conservancy is a non-profit conservation organization working to protect, promote, and restore the natural ecological integrity of Chattooga River watershed ecosystems; to ensure the viability of native species in harmony with the need for a healthy human environment; and, to educate and empower communities to practice good stewardship on public and private lands. The Chattooga Conservancy has an organizational interest in the proper and lawful management of public lands within the Chattooga River watershed, including Nantahala-Pisgah National Forests. Our members, staff and board members participate in a wide range of activities on this national forest, including those areas that will be impacted by the proposal set forth in the Southside EA. We represent approximately 600 members that support our work.

As a preliminary matter, we appreciate your willingness to discuss the Southside Project's scoping notice last year (3-30-17 meeting) as well as subsequent conversations. However, we have immediate concerns with the Southside EA, specifically with respect to the EA's justifications in support of its proposed actions, or the lack thereof, and its ecological implications in the project area. Each of these concerns is discussed below in greater detail.

I. The Draft EA Fails To Apply Contemporary Science Regarding Old Growth

In the Introduction to the draft EA, in Chapter 1, 1.1 Document Structure, p. 2, the Forest Service states, "This Environmental Assessment is based upon the best available science…". This is far from the truth. The Southside Project is based on an outdated forest plan that does not include new, contemporary scientific information concerning a) managing national forests on a landscape level to facilitate adaptation to climate change, and b) the value of protecting and restoring a connected network of old growth forests.

Specifically, in Chapter 3 of the draft EA concerning "Environmental Consequences," and specifically regarding the Southside Project's effects on climate change (pp. 80-82), the Forest Service references several scientific studies in drawing its conclusions. The EA concludes that climate change and a warming effect "…could affect forest productivity, forest pest activity, vegetation types, major weather disturbances, (droughts, hurricanes), and streamflow." Further, the EA states, "...it is possible that in the long run, a warmer climate will result in certain species (cold-adapted ones such as northern hardwoods) ranges moving north. In turn, species that currently have a more southerly range might start appearing here." The agency concluded that actions taken in Alternative B, the proposed alternative, "…would provide more structural diversity to the area and establish young, vigorous stands that may be more resilient to the changes in the climate than those ages 70 and older." Concerning the mitigating effect of forests acting as carbon sinks, the draft EA concludes that the proposed timber harvesting in the Southside Project "…would temporarily convert stands from a carbon sink that removes more carbon from the atmosphere than it emits, to a carbon source that emits more carbon through respiration than it absorbs." But the EA then states, "As the stands continue to develop, the carbon source would change to a carbon sink. The strength of the carbon sink would increase until peaking at approximately 85 years of age (Vose 2009) and then would gradually decline but remain positive." The scientific evidence cited in the draft EA was published between 2004 and 2009.

During the fall of 2017, students from the University of North Carolina/Chapel Hill studying at the Highlands Biological Station conducted an intensive study of two stands of old growth timber that are designated for cutting in the Southside Project, at Brushy Mountain (35-41) and Granite City (31-18). One of these students (Klio Stroubakis) published a paper in December 2017 entitled "Carbon Stock In Above Ground Biomass Of Potential Old Growth Stands, Southside Timber Sale, Nantahala National Forest" (herein incorporated by reference, and attached to these comments). Findings in this publication concerning carbon sink potential in younger forests versus old growth forests references more recent studies, which dispute the claim in the draft EA that younger forests are more important and effective carbon sinks than old growth forests. On pp. 2-3 of this study, a more complete explanation of this issue states, "Earlier studies suggest that old growth stands are not accumulating carbon, i.e., they are carbon neutral, (Harmon et al. 1990, Luyassaert et al. 2008) and that instead, it would be better to harvest old growth forests and replace them with young, fast-growing forests in order to accumulate carbon. While Harmon et al. (1990) and Luyassaert et al. (2008) found that conversion of old growth forests to young forests will not decrease atmospheric carbon dioxide, more recent studies show old growth forests are actually functioning as carbon sinks (Keith et al. 2009, Hudiburg et al.2009, Mc Garvey et al. 2015, USFS 2015, Ford and Keeton 2017). Following this thinking, the conversion of old growth forests will add carbon to the atmosphere because it will take a long time for new plantings to sequester and store an equivalent amount of carbon as mature forests (Harmon et al. 1990; Keith et al. 2009)." Stroubakis further states on p. 3, "The importance of the carbon stock assessment is that a timber harvest would compromise the carbon storage potential of these forests stands for 200 years (Harmon et al. 1990)".

Other factors addressed in more recent scientific documentation—that are completely ignored by the EA—are related to climate change, and the necessity to connect old growth patches across the landscape in order for them to function as migratory corridors, to allow forests to adapt to climate change, is contained in some of the Forest Service's own studies. In June 1997, the Southern Region of the Forest Service published "Guidance for Conserving and Restoring Old-Growth Forest Communities on National Forests in the Southern Region." This document gives clear direction for a management strategy to develop a "network" of old-growth areas of existing and possible old growth communities, and managing the distribution and the "linkages" of old-growth patches. This strategy for a network of

old growth connected across the landscape is clearly endorsed by more recent scientific studies that find that "connectivity "is essential for the migration of species, as a result of global warming. Yet the EA continues to emphasize meeting the requirements of an outdated forest plan for establishing small, medium and large patches of old growth, while ignoring the Forest Service's own guidance to address connectivity. This is underscored on p. 60 of the EA that states "The R8 Old Growth Guide is not a policy document with substantive and procedural requirements that must be met…". In other words, the Southside draft EA is not even in step with the Forest Service's own guidance to use the latest science to effectively manage and conserve old growth.

Another issue related to old growth management as related to climate change is the continued insistence in the draft EA that sufficient old growth has been protected, by citing a statistic that 37% of the national forest in the Analysis Area (AA) is already managed as old growth conservation areas. But without incorporating connectivity, managing fragmented patches of old growth renders them an ineffective tool to address climate change. Therefore, the draft EA's claims that numbers of acres of designated old growth will address climate change is moot and misses the point.

Recent scientific studies have concluded that biological diversity is an important feature of old-growth forests, that provides long term protection from disturbance and climate change impacts. From this perspective, not only protecting and connecting existing old-growth but also restoring "near" old-growth where needed, will be an essential management strategy. The fact is that these forests are important because of their inherent biological diversity, and they contain the "library of genetic material" to restore native forest ecosystems. A connected network of native old growth is also our best chance to allow our forests to adapt to climate change, and to mitigate its effects by storing carbon. In this larger context, it is not only reasonable to protect all remaining old growth on our public lands, but imperative to facilitate the restoration of future old growth in a contiguous network of functioning native forests across the landscape.

One can only conclude that as long as the Forest Service continues to resist the overwhelming need to incorporate current science in management strategies to effectively protect old growth forests for their value as carbon sinks, and connected migratory corridors to address climate change, the result will be a lost opportunity to address one of the most important issues of our time.

II. Old Growth Stands at Brushy Mountain (35-41) and Granite City (31-18) Must Be Preserved.

The statement by the Forest Service that 68% of the Southside AA is either unsuitable for timber harvesting or is "designated" old growth is purposefully misleading. It is true that the Southside Project AA contains the Ellicott Rock Wilderness Area, the Chattooga National Wild and Scenic River Corridor and the Terrapin Mountain Backcountry Area, as well as scattered patches of designated old growth. To take the myopic view that because this unique portion of the Nantahala Ranger District contains a large percentage of protected acreage, and therefore is representative of the greater landscape, is tantamount to forest management gerrymandering.

Furthermore, we assert that the old growth "conservation" acreage as cited in the EA is inflated. Included in the EA's old growth figures are patches of forest that have been designated as old growth conservation areas, yet some are only 30 years old and will not recover old growth characteristics for 100 or more years, and in the case where they have been subject to clear-cutting, it may take 200 years, if ever. In addition, while making the claim that 68% of the Southside AA is being managed for preservation, the EA fails to point out that on a landscape scale, currently only 0.5% (1/2 of 1%) of old

growth forest remains in the southeast, and is extremely rare. Therefore, the old growth stands at Brushy Mountain (35-41) and Granite City (31-18) must be preserved.

III. The Southside AA Includes 2,484 Acres of Forest Lands Designated For Prescribed Burns And Fails To Disclose Cumulative Impacts In the EA

The Forest Service plans to burn 2,484 acres of forest lands inside the Southside Project Analysis Area (1.3.3 Description of Proposal – Alternative B [Proposed Action] , p. 12), for the purpose of wildlife habitat creation or improvement (722 acres in the Bull Pen area and 1,765 acres in the Jack's Creek & Whitewater River). These areas will be burned with prescribed fire every other year for six years, then every five years afterwards. The burns are scheduled to occur during the "dormant season" between October 15 and April 15. The action is supposedly designed to mimic natural fire behavior.

This proposed action defies logic, sound science and common sense. The Bull Pen area and forest lands near the state line where this massive burning is proposed is a part of an ecosystem that receives the second highest rainfall in North America, sometimes exceeding 80 inches per year. It is oftentimes referred to as a temperate rain forest. However, droughts do occur. Nonetheless, because of the wet conditions during a normal year, natural fire intervals are 15-20 years. The excessive use of fire in this wet ecosystem is clearly ill conceived.

The proposal for prescribed fire in the AA to be carried out during the "dormant" season, described as between October 15 and April 15th, is simply false. Vegetation begins to come out of dormancy as early as late February and by the arrival of spring in late March, many plants are in full bloom. By early April, wild turkeys are already on the nest, and sap in trees has already risen. Burning as late as April 15th could cause great harm to both plants and animals. The citation for this assertion is "common sense." The Forest Service claims that prescribed fire will regenerate "fire adapted" species. This is not necessarily true according to Beverly Collins, ecologist with Western NC University, who has studied low intensity fire and has concluded that these types of burns do not always result in promoting fire adapted species, and that fire is often used by the Forest Service to produce and manage commercial timber crops.

Much of the forest in the AA's prescribed burning areas is potential old growth. This potential is often overlooked, because forest stand age is based in a Continuous Inventory of Stand Condition (CISC) that is often incorrect (*An Assessment of the Old-Growth Forest Resource on National Forest System Lands in the Chattooga River Watershed*, by Paul Carlson, 1995). This is underscored by our findings on Brushy Mountain, where the Forest Service claimed that although they knew there were "a few old trees up there," it was not old-growth. When we requested that the Brushy Mountain stand should be inventoried using *Regional Old Growth Guidance*, the Nantahala Ranger District's report supporting the previous statement contained a disclaimer that no trees were bored because of problems with the instrument. Then, after it was studied by students from UNC/Chapel Hill employing extensive measurements that concluded the stand was old growth, the Forest Service capitulated in the draft EA and admitted it met criteria for old-growth classification. 180 acres of stands in the Southside Project are admittedly 100 years and older, and have not been properly inventoried including stands in the prescribed burn area. Managing these forests in the burn area as tree crops without knowing what is really there is irresponsible.

Furthermore, while low intensity burns within natural fire cycles do not do excessive damage, oftentimes prescribed fires on Forest Service lands have resulted in burns that are much hotter than

intended, resulting in damage to soil and resulting erosion, and associated detrimental impacts to aquatic ecosystems.

The proposal for prescribed fire in the Southside AA is clearly excessive for the mixed deciduous forests of the upper Chattooga River watershed. The proposal to use the Chattooga River's sensitive riparian area as a fire line defies all logic, and to risk damage to a National Wild and Scenic River is a bad gamble. The proposal for excessive burning in the Southside Project is half baked, pun intended. It defies common sense, where important factors are unknown, and it is not based on good science.

Moreover, the prescribed burns presently under consideration by the Forest Service within the Southside Project AA render inadequate the EA's cumulative impacts analysis in relation to fire. The assessment of cumulative impacts in NEPA documents is required by Council on Environmental Quality (CEQ) regulations. By mandating the consideration of cumulative impacts, the regulations ensure that the range of actions that is considered in NEPA documents includes not only the project proposal but also all actions that could contribute to cumulative impacts.

Cumulative impacts result when the effects of an action are added to or interact with other effects in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, that should be the focus of cumulative impact analysis. According to EPA guidance on consideration of cumulative impacts, the adequacy of cumulative impact analysis depends on how well the analysis considers impacts that are due to past, present, and reasonably foreseeable actions. (EPA Publication No. 2252A). Particularly, the inclusion of other actions occurring in proximity to the proposed action is a necessary part of evaluating cumulative effects.

Here, there can be no doubt that the Bull Pen and State Line burn units combine and interact with the effects of Southside Project at a "particular place and within a particular time." Indeed, the EA explains the intended impact of the prescribed burns that will occur within harvest units of the Southside Project, during the Project term. (EA, p. 12). While these two prescribed burn units are covered under separate decision documents, that fact of course does not relieve the Forest Service from consideration of cumulative impacts in this EA.

The manner in which the EA addresses these burn units implicates two major legal errors. First of all, given the simultaneous, shared and collaborative objectives of the burn units and the Southside Project, the Forest Service erred in separating consideration of these projects under NEPA. The Supreme Court has acknowledged that NEPA requires a comprehensive impact statement when several concurrent proposals have a cumulative or synergistic impact. Kleppe v. Sierra Club, 427 U.S. 390, 409, 96 S.Ct. 2718, 49 L.Ed.2d 576 (1976). This is exactly the circumstance at hand, where the prescribed burns are meant to accentuate the objectives of the Southside Project, and both projects are under consideration by the Forest Service at the same time, yet separate NEPA analyses have been undertaken, with the effect of diminishing the total environmental impacts.

Although the Forest Service has some discretion to define the scope of NEPA review, certain actions must be considered together to prevent an agency from "dividing a project into multiple 'actions,' each of which individually has an insignificant environmental impact, but which collectively have a substantial impact." Thomas v. Peterson, 753 F.2d 754, 758 (9th Cir.1985). The relationship between the Southside Project and the controlled burns is indicative of a single NEPA project. For example, it is clear that the Bull Pen burn is a part of the prescription for reducing undesirable species connected to the silvicultural treatment proposed in the Southside Project for unit 31-20. (See EA, p. 12). Yet the impacts of the

controlled burns were categorically excluded from NEPA review, rather than being considered as a part of the Southside Project for purposes of NEPA. It is an error that the NEPA analysis of these related actions was handled separately.

Secondly, even the limited cumulative impacts analysis that was undertaken in the EA is necessarily inadequate and premature, given that the particular environmental effects of the prescribed burns remain undefined. The Forest Service previously solicited public comments on its proposal to reauthorize prescribed fire in 33 separate units, including the two units within the AA, and comments were due on January 19, 2018. The terms of that reauthorization remain undefined, with the Forest Service having indicated that a reassessment of the previous burn plan is ongoing. In addition, the EA indicates that the first prescribed burns in Bull Pen and State Line have not yet taken place. (EA, p. 12). Considering the presently undefined nature of these controlled burns, a meaningful analysis of cumulative impacts is not yet possible.

The fact that the Forest Service has endeavored to consider the Bull Pen and State Line burns in this EA, while those burns are yet undefined, suggests that the outcome of the EA was predetermined and that the Forest Service is merely "going through the motions" with its cumulative impacts analysis. NEPA, however, ensures that agencies conduct environmental analyses in an objective fashion by prohibiting them from predetermining the outcome of their review. See 40 C.F.R. § 1502.2(g) (an EIS must "serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made"); id. at § 1506.1(a) ("Until an agency issues a record of decision ... no action concerning the proposal shall be taken which would ... [l]imit the choice of reasonable alternatives.").

Under the NEPA authority laid out above, other present actions that may be detrimentally affecting the resources of concern need to be considered at the same time impacts of the proposed action are considered. The Forest Service has failed to carry out this directive in relation to the prescribe burns, by rushing forward with this EA before the terms of the burning are set.

IV. The EA Fails to Analyze Impacts to Wilderness Inventory Areas (WIA)

The draft EA includes timber harvesting in stands 29-15 and 29-16 within the Ellicott Rock WIA, and 31-20 within Terrapin Mountain WIA, yet fails to provide an adequate impact analysis of this proposed action as required by NEPA. Furthermore, due to the potential significance of disturbance activities and their impacts to these WIAs, an EIS would be required. In addition, the EA must assess whether and to what extent harvest in stands 35-41 and 35-42 will impact the adjacent Terrapin Mountain WIA and existing Ellicott Rock Wilderness. The speculative treatment in the draft EA about the proposed actions in the Ellicott Rock and Terrapin Mountain WIA vis-à-vis the ongoing Nantahala-Pisgah Forest Plan revision process does not satisfy the requirements of NEPA.

V. The EA Is Flawed By Relying On An Outdated Forest Plan Biased Toward Commercial Timber Harvesting To Create Early Successional Habitat (ESH)

The draft EA is biased toward commercial timber harvesting to create Early Successional Habitat as a primary management tool, based on direction in the outdated Nantahala-Pisgah Land & Resource Management Plan, even though a more natural way of achieving this goal exists. This assertion is supported by the statement in the EA on p. 6, "Natural disturbance can provide ESH; however, they do not assure a regular and sustained flow of habitats across the forest through space and time as directed in the LRMP (page III-29)". There are 6,204 acres of forests or 33% of the national forest lands in the AA

that are older than 100 years old, and that are, or soon will be, exhibiting old-growth characteristics. Almost all are forest types that naturally reproduce by canopy gap phase reproduction, which creates an uneven age forest of many layers that naturally create a wealth of habitats, including ESH. 180 acres of 317 acres or 57% of the forest scheduled for harvesting in the Southside Project draft EA are over 100 years old. These old forests, along with the other 6,204 acres across the rest of the national forest in the AA will soon create needed ESH naturally, without timber management. The EA continues to discount this obvious source of ESH that would develop naturally using "benign neglect" at almost no cost, simply because of direction in the outdated forest plan.

Even so, we recognize that this would probably not be sufficient on a landscape scale to restore a native ecosystem as described by William Bartram, who traveled through the area in 1775, and who wrote that the landscape had "swelling turfy ridges interspersed with groves of stately forest trees." The turfy ridges and beaver meadows that once existed in the AA were undoubtedly maintained by ungulates such as elk, that grazed and maintained this natural ESH and that no longer exist. Therefore, we do not oppose timber harvesting in some areas to produce needed ESH to restore the type of habitat described by Bartram, that would produce conditions that maintain the rich biological diversity that once existed in the AA. We would support management in a matrix interspersed with a network of connected older, uneven aged forests, using silviculture techniques such as single tree selection, small group selection, thinning and occasional prescribed fire along with permanent wildlife openings that could create ESH without the heavy use of herbicides and unnatural two-age (even-age) management. Logging existing old growth forest to create ESH as proposed in the draft EA is unacceptable and inconsistent with goals to restore and maintain old growth.

VI. The Draft EA Fails to Analyze Potential Impacts to Green Salamanders

The EA's analysis of impacts to the green salamander in the EA is inadequate to disclose impacts, or to explain how these salamanders and their unique habitats are being avoided and mitigated. This includes proposed activities in stands 29-11, 29-16 and 41-44. The EA also fails to consider the impacts of barriers to connectivity created by project roads on green salamanders and other dispersal-limited species, and thus fails to satisfy NEPA's requirements for analyzing impacts to sensitive species.

VII. The EA Proposes Widespread Herbicide Applications That Present Unacceptable Risks & Unknown Potential Impacts To Forest Users And Natural Resources In The AA

The EA proposes to use massive amounts of herbicides, including glyphosate, to cultivate only certain tree species for commercial timber harvesting, and to kill other native trees, shrubs and invasive species. Recent studies show that poisonous herbicides like glyphosate persist much longer in the environment than previously thought, and are much more likely to cause cancer. And in many cases, mechanical methods work just as well, without the risk.

The International Agency for Research on Cancer (IARC) is the cancer evaluation arm of the World Health Organization. In March 2015, the IARC convened a meeting of 17 scientific experts from 11 countries to assess whether certain pesticides, including glyphosate, caused cancer in humans. The outcome of that meeting is that glyphosate "probably" causes cancer in people, and IARC's decision to classify glyphosate as "probably" carcinogenic to people was made unanimously, after reviewing hundreds of scientific studies. In addition, the Natural Resources Defense Council has filed two lawsuits and a petition with EPA to restrict the use of glyphosate-containing herbicides, because of their

devastating impact on monarch butterflies. Until a contemporary review is conducted of glyphosate's toxicity, we are opposed to and question its widespread use on public lands.

VIII. The EA Fails to Disclose A Complete Economic Analysis

We are concerned that the Southside Project will cost more than it produces in revenue, at the expense of forest health and biological diversity. The reasons we oppose the Southside Project in terms of a loss of biological diversity are covered in other sections of these comments. In regard to cost/benefit in tax payer's dollars, the EA states that the dollar income from timber sales will be $427,275, but the costs for surveying, research and analysis, timber sale administration, site prep, tree planting, pre-harvest and post-harvest, NNIS treatment and road-building are not disclosed. Adding insult to injury, the proposed Southside Project in economic benefit alone would amount to a below cost timber sale.

Conclusion

In conclusion, we are adamantly opposed to the Southside Project, based on the EA's use of outdated and flawed science, reliance on an outdated forest plan, lack of or ignorant denial of vital information, inappropriate silviculture treatments, and failure to adequately address old growth values and management to address climate change. Consequently, we respectfully request that the proposed Southside Project be withdrawn. We stand ready to work with the Forest Service to develop future forest management plans to better protect the exemplary and vital values of our national forests, based on complete information, sound science, and an economically and environmentally viable management plan for Southside Analysis Area.

Regards,

Nicole S. Hayler

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