

The South Carolina Native Plant Society

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August 24, 2005

USDA Forest Service

Attn: Mr. Richard L. Rosemier, District Ranger

20 Work Center Road

Whitmire, SC 29178-9710

Re: File Code: 1950/2510

Date: July 14, 2005

Dear Mr. Rosemier:

On behalf of the South Carolina Native Plant Society I offer the following comments in opposition to the proposal, "a fertilization proposal to restore and enhance soil productivity and improve wildlife habitat," File Code 1950/2510, July 14, 2005, Enoree Ranger District, Sumter National Forest. The **Proposed Action** will degrade area soils, not improve productivity as claimed in the **Purpose and Need for Action**. The **Proposed Action** would promote neither **Relevant Forest management goals 5 and 15**, nor referenced **Relevant Forest management objectives**. Water quality would more likely be adversely impacted than improved by this **Proposed Action**. I respectfully request that you withdraw this proposal.

The **Purpose and Need for Action** will not be served by the **Proposed Action**. There is natural soil enrichment in progress throughout these stands. The proposed high nitrogen fertilization will take away from that soil recovery, not contribute to it. While loblolly pine may have occurred in bottomland forests here, these sites generally occupy areas that were originally oak/hickory, oak/hickory/shortleaf pine, or Piedmont prairies. Remnant species of those communities persist, and struggle to reestablish whenever opportunities permit. I suspect that planting dense stands of loblolly outside the species' natural habitat contributes to its stress, and will compromise the success of the loblolly plantations attempted here. Sustainable agriculture would have arguably been better served by promoting the recovery of native species than through the introduction of loblolly. Conditions here are frequently not conducive to the dense planting, mechanical thinning, and short harvest cycle proposed here. The original vegetation of this region apparently consisted of open fire maintained oak-hickory-shortleaf woodland, with the percentages of these species varying with site and fire history (Barden 1997). Past timbering and other agricultural practices eliminated much of that original forest condition. Those agricultural practices were driven almost exclusively by economic return without regard to what the

ground would sustain. When the USDAFS acquired this land it was heavily eroded and denuded of the upper strata of nutrient bearing soil essential to sustaining life. Under the present stewardship the area has been largely reforested, although unfortunately in some instances, including those relevant to this proposal, Loblolly Pine monoculture were elected over more desirable and sustainable species. Erosion, though still a concern, is largely abated. A thin layer of nutrient bearing top soil has reestablished. The topography here is varied. The stands that I surveyed were generally on steep slopes with thin soils. Erosion is already a major concern. Since erosion will be exacerbated by harvesting, promoting marketable trees on those sites is contradicted there. Perhaps the Forest Service plans to hand cut the timber from those slopes and use helicopters to take them off site? These sites have been exhausted by past agricultural activities. They are now in recovery, but timbering activities in the foreseeable future would put them in relapse. Elements brought to the surface by plant roots, especially tree roots, and decaying vegetable matter are rebuilding the nutrient base here. High nitrogen fertilizer (35-17-10) may promote growth for these plantation trees just as saturated fats do for mammals, but the chemical should not be considered a nutritional enrichment to the vascular plant community. In general the area is struggling to return to its original condition. Prescribed fire would promote conditions noted as **Relevant goals and objectives** in this proposal, but the application of high nitrogen fertilizer will only take from those goals and objective.

This proposal is offered with the **Relevant Forest management goals** to *Maintain or restore soil productivity and quality* and *Manage forest ecosystems and associated communities to maintain or restore composition, structure, function, and productivity over time*. It proposes to be an initiative to improve forest health. Unfortunately, the emphasis here appears to be on timber harvest for financial return, with little if any emphasis placed on forest health and integrity, especially with regard for soil, water and other special resources. It revisits the taking for financial gain from an area that has given all that it can for now. Considering the steep slopes and thin soils throughout, the inevitable consequence of any mechanical disturbance here, including thinning, would be to restart more-or-less arrested erosion, resulting in flushing of the thin surface layer of nutrient rich soil that has managed to reestablish over past decades. This proposal would only move the area toward a condition requiring active restoration.

Exotic invasive species pose a major threat to this environment. The proposed fertilization will promote those species, which have invariably been brought to the sites in conjunction with the establishment of the loblolly stands being considered here. No action, including the application of fertilizer, should be allowed that will favor those harmful invasive exotics. Fertilizer will favor these exotics to the further detriment of desirable species.

I do not agree that this proposal qualifies for categorical exclusion from documentation in an Environmental Assessment or Environmental Impact Statement. Both the application of high nitrogen fertilizer and mechanical thinning will unavoidably exacerbate an already unacceptable invasive exotic species problem here. There is a high probability that these proposed invasive activities will lead directly to the need for the use of herbicides. That condition should have been noted as a consequence of the **Proposed Action**. A NEPA would be required in order to determine impacts associated with this proposal.

With regard to **Wildlife Habitat**, areas proximal to these loblolly plantation sites are generally good habitat with healthy game populations. Prescribed fire will be beneficial to improving conditions for wildlife here. Fertilizing to promote loblolly, an agricultural species with relatively little to contribute to native biota, coupled with soil disturbing mechanical thinning would only worsen the existing, compromised, conditions that these loblolly plantations already pose. Thinning these loblollies soon with a chain saw or weed whacker and leaving them in place could be beneficial. The native grass and herb ground cover would likely emerge quickly into resulting openings; conditions that promote both wildlife and desirable soil nutrient and texture.

The **Proposed Action** will likely adversely impact water quality throughout the area. An application on Henderson Island is of particular concern. Applying those chemicals essentially into the Broad River just doesn't seem to be an appropriate public agency action. Water quality in the area is a major concern. Potential pollution stands as the first reason that the Forest Service should forego fertilizer application here. The usual rebuttal that very little will chemical will make its way to flowing water is undocumented on site and unacceptable. I contend that soils are so thin over the area, in some cases down to bedrock, that traditional models are not applicable for what could happen on these sites. It would seem to be incumbent upon the Forest Service to conduct studies on site to verify any claims that what they're applying will not adversely impact waterways there.

Thank you for taking the time to consider my comments.

Sincerely,

John A. Brubaker, President
South Carolina Native Plant Society

REFERENCES

Barden, L.S. 1997. Historic prairies in the piedmont of North and South Carolina, USA. *Natural Areas Journal* 17: 149-152.

USDAFS. 2003. Revised Land and Resource Management Plan, Sumter national Forest.