Data Submitted (UTC 11): 12/27/2019 11:00:00 AM
First name: Jim
Last name: Scheff
Organization: Kentucky Heartwood
Title: Director
Comments: Attached are comments from Kentucky Heartwood on the Draft EA for the Improving Conditions in the Blackwater Watershed project. We do want to note that as of 6:50 pm on 12/27/19, the project page URL is returning an "Invalid Project" message. We have access to the comment portal through a hyperlink on our website. It's possible others are locked out.

Thank you for the opportunity to comment on the Improving Conditions in the Blackwater Watershed project ("Blackwater project"). We appreciate the efforts that the Forest Service underwent from 2016 through 2018 to gather input from the public. However, we have significant concerns with this project and the process by which you are proposing to approve this project.

1. Condition based management

After more than three years of analysis, the Forest Service has failed to provide a Proposed Action with any site-specific management actions. Instead, identification of site-specific actions has been deferred to a post-decisional process. While we find some of the collaborative structure in Table 1: Project Planning, Implementation, and Feedback Process for Improving Conditions in the Blackwater Watershed compelling, the collaborative identification of site-specific actions needs to happen before an informed, official decision to approve the project can be made.

With respect the effects analysis, the process here (condition based management) treats all forests in large zones as effectively interchangeable. This is not the case. In past projects Kentucky Heartwood has provided feedback on specific stands and their attributes. We have made concrete suggestions regarding the modification of prescriptions, dropping of logging plans, existence of old-growth, and other attributes. Because the Forest Service has failed to identify specific locations for specific management prescriptions, the Forest Service has precluded this opportunity to provide site-specific input. While it could be argued that the public can provide any information on any of the stands in the project area prior to the decision, any such arguments would be hollow. The Forest Service has proposed shelterwood logging on any of 10,316 acres, logging with uneven-aged systems on any of 1,160 acres, stream restoration on any (or no) segments of 15.3 miles in 9 watersheds, new road construction in any areas, and other actions. If the Forest Service cannot identify site-specific attributes and prescriptions at this stage of the project development, it is unacceptable to put that burden on the public.

Several recent examples provide evidence for why site-specificity matters in the proposal and decision-making processes.

[bull] After the Forest Service proposed the Crooked Creek project in the London District, Kentucky Heartwood surveyed the Little Egypt area and found notable old-growth in a proposed harvest area, including the second-oldest documented shortleaf pine in the world.

[bull] In the Freeman Fork project in the Stearns District, Kentucky Heartwood provided site-specific information that led to the switching of two stand prescriptions. The lead investigator of the research project tied to the management at Freeman Fork agreed that the modified prescription better followed the site-specific community indicators present. This happened because we were able to survey two specific, adjacent sites with specific

management prescriptions.

[bull] In the Greenwood project, several stands were either removed from proposed logging or had prescriptions modified based on Kentucky Heartwood[rsquo]s site-specific observations and comments. One such stand was at the Three Forks of Beaver Creek trailhead, where the prescription was changed from a commercial harvest with fire to a midstory removal with fire.

[bull] In the Pine Creek project, Kentucky Heartwood was able to determine that a stand proposed for shelterwood harvesting was being used as an access for a popular waterfall (Pine Island Double Falls). This led to the stand being removed from any harvest proposal.

[bull] In the South Redbird project, one proposed shelterwood unit was inaccurately described as a 65 year-old forest. Kentucky Heartwood was able to verify that it is a complex, multi-aged old-growth stand. The stand is now excluded from the harvest.

While the Blackwater project describes a collaborative process for gathering site-specific input, this does not supplant the importance of NEPA in the decision-making process. Furthermore, the collaborative process outlined in Table 1 of the EA gives "collaborators" (not the public) only 10 business days to provide feedback on site-specific management plans. This is not a reasonable timeframe.

The Forest Service appears to be treating the Blackwater EA as a programmatic EA, where management parameters are defined and analyzed with the assumption that site specific analysis will happen in a subsequent, abbreviated decision tiered to the original decision (similar to the Forest Plan and a normal EA). While such a process is allowed, it requires that the site-specific administrative decisions also be subject to NEPA. The Forest Service could do this. The current EA could be approved, and the collaborative scheme in Table 1 of the EA followed. However, once specific areas are identified for specific management, an abbreviated NEPA document would need to be produced. This abbreviated document need not repeat all of the analysis in the programmatic EA, only address site-specific issues while tiering to the programmatic EA. We would find this process acceptable.

2. A forever-project?

In our scoping comments we asked the Forest Service to clarify the intended duration of this project. As we wrote in our scoping comments:

The proposal provides "maximum acres per decade" but then fails to provide any information regarding how many years (decades) the Forest Service intends to operate under a decision on this proposal. In the description of the uneven aged management (UAM) prescription, it says that implementation will be carried out over a 20-30 year timeline. Does that apply to the whole project? Is this just an open-ended proposal to be carried out over an indefinite timeframe with no site-specific analysis to inform your decision?

The Forest Service has done nothing in the EA (that we can find) to clarify this issue. Therefore, there is no other interpretation than that the Forest Service intends this as a "forever-project," where the annual and decadal logging goals in the Silviculture Report are intended to be implemented on an ongoing basis with no end. The Silviculture report provides a total harvest acreage of 1,086 acres per decade. If implemented indefinitely, this results in timber rotations of just over 100 years across the project area, and not the 140-190 year rotations cited in the project documents. It can[rsquo]t be both.

This arbitrary horizon, resulting in an indefinite, undetermined acreage to be harvested, is not acceptable within the NEPA framework for decision-making.

3. Design Criteria

The validity of the condition based management system being put forward in the Blackwater project is based in large part on the existence of project-specific design criteria, or "sideboards," that create specific parameters within which management will (or will not) occur.

"The monitoring will be used to guide future project work within the sideboards established in the proposal and also to document movement toward the condition desired for the watershed." (EA-2)

However, the Design Criteria in the EA (see EA-3) provide little more than what is in the Forest Plan, and certainly not enough to meet all of the site-specific issues that may be encountered during project implementation. Beyond existing Forest Plan Standards, the "sideboards" amount to the Forest Service stating that experts will look at things in the field, evaluate conditions, and do things where and when they deem appropriate.

The first design criterion provided states:

"All treatments will be site-specifically designed by a diverse team of specialists and documented in a silvicultural prescription. Specialties involved will include at a minimum silviculture, wildlife biology, archaeology, soils, and hydrology." (EA-4)

This is does not constitute "design criteria."

The second criterion states:

"No forests with an average overstory age greater than 118 years would be considered for conversion to young forest."

We appreciate and support this exclusion. However, by our estimation, it only affects about 3% of the proposed harvest areas.

The third design criterion states:

"Forests located on areas with identified geologic or soil hazards (karst, slope stability, or steep slopes) will be reviewed by specialists and site specific actions will be developed if needed to allow treatment."

Similar to the first criterion, this is not a "design criterion." It provides no bounds, limitations, or direction for any actions, including where or how actions will occur or be modified. We also have little

faith in the Daniel Boone National Forest in exercising "professional judgement" in these situations. We have recently documented substantial erosion, including three mass wasting/landslide events in three different shelterwood harvest units implemented over the past three years in the Redbird District. In each of these instances Forest Service personnel used their best judgement to implement a harvest. The on-site judgement calls of a constantly shifting (and understaffed) personnel base is not an adequate design criterion with regard to the development of logging roads, skid trails, etc.

The fourth criterion states:

"No treatment activity will take place in Potential Old Growth forests until detailed assessments of its significance are made. Those meeting detailed old growth criteria will not be proposed for any activity that will diminish old growth characteristics."

We support this criterion, though it appears redundant with the previous criterion of not regenerating stands older than 118 years.

The fifth criterion states:

"No new permanent (system) access roads will be constructed unless an equal mileage of existing roads are retired or a segment of road constructed in a riparian area is retired."

As we describe below, this is essentially meaningless with respect to the effects analysis. The effects of building a new system road are site specific, not negated by the removal of another road. The criteria provide no direction regarding how, when, where, or why new system roads may (or may not be) built.

The sixth criterion states:

"Prior to implementation of any project, the area involved will be reviewed to determine the actual locations of the riparian boundaries, cliffline zones, and for the presence of rare communities in order to ensure compliance with Forest Plan Standards pertaining to these habitat types. Location and nature of activities will be adjusted to protect these resources."

This is only affirming that the Forest Plan will be followed, and is not a project- or site-specific criterion.

We have no remarks on the last two criteria.

Overall, these criteria are so unspecific and generalized that they in no way make up for the lack of site-specific management actions in this proposal or meet the analysis thresholds of NEPA.

4. Interior forests

Most of the Blackwater project area is in Forest Plan Management Area 1.K Habitat Diversity Emphasis. Objective 1.C for this prescription area states:

"Maintain 30 percent within each 5th level watershed in a relatively closed canopy forest at least 70 years old with midstory and shrub/sapling layers. One-fourth of the 30 percent should be maintained in blocks of at least 620 acres for interior habitat. Each block can include up to 200 acres from adjacent cliff and riparian areas; up to one-third of each block may be thinned to no less than 60 basal area." (emphasis added)

The Blackwater project is focused almost entirely on creating young, regenerating forests. While this is one of the Objectives for the 1.K prescription area, this is not the only Objective. While the forests in the project area appear to meet the first part of Objective 1.C (30% as closed canopy > 70 years old), does the project area meet the second part of this Objective for interior forest blocks of at least 620 acres? From our analysis, it appears that there are a few areas that currently meet the 620 acre threshold, and probably meet the [frac14] of 30% (7.5%) objective. However, we[rsquo]re actually not even sure how many acres of national forest there are in the project area, as we can[rsquo]t find this basic number in the project documents. The GIS data provided doesn[rsquo]t include a project area boundary. And this objective is based on 5th level watershed, not project area. And how will the logging proposed in the Blackwater project affect meeting Objective 1.C? This latter question cannot even be answered because the Forest Service has not identified which stands will be regenerated, or made statements that stands will not be regenerated if such an action moves the area away from meeting Objective 1.C.

Furthermore, Forest Plan Objective 1.1.B.b states:

b) Create and maintain at least one approximately 7,400-acre area of cerulean warbler habitat in the Licking River Management Area, Upper Kentucky River Management Area, and the Jellico Mountains of the Cumberland River Management Area. Each 7,400-acre area can be composed of tracts at least 618 acres in size connected by corridors of either upland hardwood forest or riparian areas. Upland hardwood forest corridors should be no more than two miles long, and at least [frac14]-mile wide. (Forest Plan 2-5).

Footnote three at Forest Plan 2-5 elaborates on the habitat structure for meeting this Objective 1.1.B., stating:

Predominantly mature (age[ge]70), open (60 BA and up) contiguous upland hardwood or riparian forest (canopy with moderate to dense shrub/midstory layers, large grapevines are required in the mix; Buehler and Nicholson 1997), with some trees >20 in.; can be upland or bottomland/riparian. Contiguous is defined as having no more than 5 percent of the area in grassy openings, regenerating forest with less than 40 BA canopy, or roads greater than 50 ft. in width; tracts may be composed of blocks of minimum 618 acres in size connected by upland hardwood corridors approximately 0.25 mile wide or riparian corridors at least 100 ft. wide, neither of which is more than 2 miles long. (Forest Plan 2-5)

Does the Licking River Management Area have any areas meeting Forest Plan Objective 1.1.B.b? Given the extent of timber harvesting in the Cumberland District over the last few decades, it is hard to see how and where the Cumberland District is meeting this Objective. How will proposed management in this project help meet, or move the forest way from, this Objective?

5. Road construction

The EA states that "No new permanent (system) access roads will be constructed unless an equal mileage of existing roads are retired or a segment of road constructed in a riparian area is retired." This is not a sufficient standard for the analysis. The location(s), distance(s), purpose(s), design(s), long-term management direction(s), etc., all matter with regards to the immediate and long-term environmental

effects. If approved there could be no new road construction, or there could be 10 miles of new road construction. There could be one new road segment, or ten. We don[rsquo]t know. The deciding official does not know. There are no "sidebars" and guidelines for when, where, and how such roads would be constructed. No informed decision can be made given the information provided in the EA. Eliminating other roads does not obviate the need for site-specific considerations with regard to new road construction.

6. Stream restoration

We are very supportive of stream restoration activities on the Daniel Boone National Forest. However, the Blackwater EA provides little information about what is actually proposed. The Botanists[rsquo] Report states that "Fourteen stream segments, totaling approximately 15.3 miles have been identified as candidates for stream restoration." We could not find this information associated with the description of the Proposed Action in the main body of the EA. The GIS data provided on the Forest Service website indicates about 16 miles. Restoration might take place in none of these areas. Or it could take place in a few. There are no goals, benchmarks, or prioritization provided in the EA. The Botanist[rsquo]s Report states that "running buffalo clover might be found" in some of these areas.

The Forest Service has worked for three years to put together this project, and has been undertaking other stream restoration projects in the area. Surely you must have some ideas, or specific goals, with regard to stream restoration. As with so much else in this proposal, we see no way that a reasonably informed decision regarding the effects, and merits, of this project can be made given the lack of critical information.

7. Prescribed fire

We can find no references in the descriptions of the proposed action, project maps, or available GIS data for prescribed fire as part of this project. However, at various points in the analysis, prescribed fire is mentioned with respect to the proposed action and possible environmental effects. For example:

"Under the Action Alternatives, treatments that could change the current conditions of water resources on NFS lands in the Blackwater Project boundary include commercial and non-commercial timber harvest, application of herbicide, prescribed fire, and stream restoration." (EA-15)

And:

"Prescribed fire: Mechanically constructed fire lines and removal of surface vegetation from prescribed fire has the potential to cause stream sedimentation. The fire crews will follow Forest Plan Standards26 and the severity of previous prescribed fires on the DBNF have been shown to be light. Stream sedimentation generated from Action Alternatives prescribed fires should be minimal and should not negatively impact the water quality in these watersheds or change their watershed classification class." (EA-15)

The Silviculture Report provides numbers for "Interval between prescribed fire (years)" in Table 1 (Report at 6).

But, again, prescribed fire is not included among the proposed actions. Nor does it appear to be included as a separate project or action documented in another decision. The use of prescribed fire can be beneficial or detrimental, depending on the where, when, and how it is applied. It[rsquo]s effects on forest structure, regeneration, species composition, etc., are significant. It[rsquo]s use cannot be considered incidental. And it cannot be utilized on the ground without being approved as an action documented under NEPA.

8. Hydrology, soils, and erosion potential

The Soil and Water Report recognizes a significant potential for mass wasting in the project area. The Report states:

Historical field reconnaissance has revealed an area to be avoided due to mass wasting events based on geology. In the Borden Formation there exist two shale members, the upper Cowbell and the lower Nancy. The contact line between these two formations is particularly weak, and when a trail or road crosses this contact, it typically and eventually leads to a mass wasting event. Landslide scars, J-shaped trees, and exposed soil are the hallmarks of this phenomenon. In designing this project these areas were mapped and avoided. This contact line is typically found mid to upper slope in portions of the Blackwater Project area. (Report at 8)

We do not see how these areas were "mapped and avoided." The GIS files provided with the project documents on the Forest Service website have the Borden formation in the blackwater_geo_haz_nfs file. Overlaying the Borden formation with the proposed and potential shelterwood areas shows over 7,000 acres (Calculated Acres field) of potential shelterwood harvest within the Borden formation. No exact location is provided for the upper Cowbell [ndash] lower Nancy contact line. There is no indication in the EA or elsewhere that we can find in the record of exclusions for logging, road building, skid trail construction, or any other management in this zone. There is nothing in the Project Design Criteria that refers to avoidance of this high hazard zone.

The Project Design Criteria include the following:

"Forests located on areas with identified geologic or soil hazards (karst, slope stability, or steep slopes) will be reviewed by specialists and site specific actions will be developed if needed to allow treatment." (EA-4)

However, as we stated above, this does nothing to address how these areas will be actually be addressed on the ground. There are no avoidance measures, slope considerations, limitations for road building, etc. The effects analysis here relies completely on some future, boundless judgement call.

We question the Soil and Water Report in its entirety. The report states that "Exact acres of treatments were not identified at the time of this analysis." (Report at 11). How can an analysis of effects to soil and water be remotely valid if there is no total acreage of timber harvests identified, no specific locations of timber harvests identified, no specific lengths, number, or locations of newly constructed roads identified, no specific lengths, number, or locations of stream restoration activities identified, and no specific acreage or locations of prescribed fire and firelines identified? There is simply no actual

analysis here other than the restating of Forest Plan standards and a statement that "treatments will be site-specifically designed by a team of specialists." (Report at 11). The Forest Service is failing to meet the basic, foundational requirements of NEPA to take a "hard look" at this project prior to making a decision.

9. Interior forests

Most of the Blackwater project area is in Forest Plan Management Area 1.K Habitat Diversity Emphasis. Objective 1.C for this prescription area states:

"Maintain 30 percent within each 5th level watershed in a relatively closed canopy forest at least 70 years old with midstory and shrub/sapling layers. One-fourth of the 30 percent should be maintained in blocks of at least 620 acres for interior habitat. Each block can include up to 200 acres from adjacent cliff and riparian areas; up to one-third of each block may be thinned to no less than 60 basal area."

The Blackwater project is focused almost entirely on creating young, regenerating forests. While this is one of the Objectives for the 1.K prescription area, this is not the only Objective. Do the forests in the project area meet 1.K Objective 1.C? How with the logging proposed in the Blackwater project affect the ability of the area to meet Objective 1.C? This latter question cannot even be answered because the Forest Service has not identified which stands will be regenerated.

10. Overshooting early seral habitat goals

The Wildlife Report states:

The desired future condition for young forests, based on Forest Plan Standards, establishes 100-770 acres per decade within the Blackwater watershed and 400 acres per decade for thinned forests. (Wildlife Report at 4)

And Table 1 of the Silviculture Report states that the "Desired amount (maximum acres per decade)" for "Young forests" is 700 to 770 acres (Silviculture Report at 5). However, Table 1 in the Silviculture Report also states that there will be 100 acres annually of commercial shelterwood and seed tree harvests (hardwood and yellow pine emphases), 12 acres annually of young forests created through commercial group selection, and 5 acres of young forest created annually through commercial logging to restore cedar glades. These add up to 117 acres per year, or 1,117 acres per decade. The Silviculture Report also states that an additional 62 acres of young forests "will be created as part of the Openlands decision."

The harvest goals here to do not add up. If the Forest Service approves the project in its current form, you will be exceeding the young forest habitat goals for the project area by nearly 50%. The annual maximum (total) commercial harvest for creating young forest (shelterwood, seed tree, or group selection) should be no more than 77 acres to meet the upper threshold described in the EA and Forest Plan.

11. Regeneration failures

Kentucky Heartwood has been collecting data from sites regenerated across the Daniel Boone National Forest from 1985 through 1994 (25 to 35 year-old stands). While we are still analyzing the data, we have found that among the 1,070 trees recorded in seventy-one 1/10 acre plots sampled in the the Cumberland and London Ranger Districts, only 16% of the canopy trees are oaks. Oaks are generally being outcompeted by tulip poplar (29% of trees) and maples (17% of trees). This closely follows our observations from across the forest.

Sustaining oaks in the forests of the Daniel Boone has been increasingly, and rather explicitly, considered a significant issue by the Forest Service. It has been recognized that, given the current understory composition in most of our secondary oak-dominated forests, regeneration harvests will result in accelerating a compositional shift away from oak dominance. We[rsquo]ve seen it, and the data bear it out. In order to implement regeneration harvests without accelerating the loss of oak dominance, regeneration harvests need to be carried out with adequate pre- and post- harvest management, including prescribed fire at the appropriate junctures, non-commercial thinning, and other management. The Forest Service included many such measures in the recently approved Pine Creek Forest Restoration Project on the London District. While we are not thrilled with the shelterwood prescriptions in the Pine Creek project, the London District at least took a responsible approach with regard to the management effort needed to sustain the oak component in the forests following regeneration harvests. The Cumberland District has not done this in the Blackwater project.

The Silviculture Report, however, does acknowledge that long-term stewardship needs to be part of any silvicultural system. The Report states:

There are three components in each silvicultural system (even-aged, two-aged, and uneven-aged) that are necessary for successful management (Figure 1) 2. The components: regeneration, tending, and harvesting, are each implemented throughout the life of a stand to reach desired conditions, to ensure maximum tree growth, and to produce favorable regeneration. (Report at 4)

However, no "tending" is included in the Blackwater project. The only components included are regeneration and harvesting (which amount to the same thing here).

The Blackwater project would approve regeneration harvests on approximately 10% of 10,000 acres every 10 years with no apparent horizon. No pre- or post- harvest management ("tending") is proposed. Given this reality, it is a reasonable conclusion that the Forest Service will substantially reduce the oak component on a landscape scale if this project is approved as-is. This is not acceptable.

The Blackwater project also fails to propose any non-commercial thinning (again, "tending") of stands harvested in the 1980[rsquo]s and 1990[rsquo]s to ensure that oaks and hickories can compete in these poplar-maple stands. This type of thinning has been approved in various projects across the Daniel Boone National Forest, and has been integrated into nearly every major timber and vegetation management project approved or proposed on the forest in recent years (e.g., Greenwood, Crooked Creek, Pine Creek, South Red Bird). Funds from timber sales are often used to support the non-commercial management needed in these third-growth forests that the Forest Service has already logged. This is not the case with the Blackwater project. It appears that the Cumberland District is abdicating any responsibility for forests logged in the past, and forest to be logged in the future. This is not acceptable.

12. Indiana and northern long-eared bat maternity colonies

The Forest Service needs to conduct actual surveys for Indiana and northern long-eared bat maternity colonies in the project area. The 2004 Daniel Boone Forest Plan incorporates specific Objectives and Standards with regards to Indiana bat maternity colonies. Objective 1.1.A. states:

Objective 1.1.A. During project analysis and implementation, protect, maintain, or enhance habitat for bat species. Management activities should:

a) Protect or enhance habitat for PETS and Conservation bat species, including significant hibernation and maternity caves/rockshelters.

b) Maintain and protect roost trees used by PETS bat species as well as foraging/swarming habitat around significant hibernation, staging, and maternity sites.

c) Protect, maintain, and enhance Indiana bat roosting, foraging, and maternity habitat.

The Forest Plan further incorporates a binding Standard, DB-WLF-8, which states:

DB-WLF-8. Tree cutting may not be conducted within 2.5 miles of any Indiana bat maternity colony from May 1 through August 15.

Forest Plan Standard DB-VEG-14 states:

DB-VEG-14. Do not apply triclopyr within 60 feet of known occupied gray, Virginia big-eared, or Indiana bat hibernacula or known maternity tree.

However, the Forest Service does not know where maternity colonies are, and it appears that the Forest Service has not looked for maternity colonies on the Daniel Boone National Forest in over a decade. The U.S. Fish and Wildlife Service (USFWS) commented on the paucity of maternity colony data in the Daniel Boone National Forest in an April 11, 2019 letter to the Forest Service (commenting on the recent Forest Plan Amendment Draft Environmental Assessment), stating:

Little is known about the summer usage of the DBNF by Indiana bat. Limited survey efforts from over a decade ago have provided the location of some maternity colonies and roost trees. However, the DBNF has stated that some portion of the large number of bats that spend the winter in the large and medium-sized hibernacula on the DBNF are thought to remain in these areas throughout the summer (USFS 2003). Based on 2018 and preliminary 2019 winter bat count data, approximately 5,600 Indiana bats are estimated to hibernate on the DBNF during the winter (USFWS, internal data). In addition, the DBNF also indicated that Indiana bats from nearby hibernacula on Pine Mountain, Carter Caves, and in Campbell and Fentress Counties in Tennessee are thought to occur on the DBNF (USFS 2003). Based on this information, it appears likely that there are other Indiana bat and northern long-eared bat maternity colonies present that have not been documented. This habitat and the individual bats occupying these areas could be adversely affected by future forest management actions if there are no protective standards proposed for potential summer habitat for either species. Therefore, we recommend developing conservation measures in the BA that would avoid and minimize adverse effects.

Several such measures were discussed during the November 2017 science meeting, including identifying and avoiding potential primary roost trees during tree removal activities and limiting the amount of tree removal that can occur during the occupied timeframe, especially during June and July when non-volant pups are present.

We contend that, absent reasonable survey efforts, the Forest Service cannot assert that they are following Forest Plan Standards with respect to endangered bats. This needs to be rectified.

13. Rare plant surveys

The Botanist Report for the Blackwater project provides a great deal of information on rare plants (PETS and

others) that could be impacted by implementation of this project. Many of the species listed in the Report could be either harmed or benefit from management depending on the specific application (e.g., regeneration harvest vs. thinning, frequency and seasonality of burning, etc.). The EA indicates that silvicultural prescriptions will take these plant species into account. However, the Project Design Criteria do not indicate that a specialist trained in botany will be involved in the development of site-specific silvicultural prescriptions.

All treatments will be site-specifically designed by a diverse team of specialists and documented in a silvicultural prescription. Specialties involved will include at a minimum silviculture, wildlife biology, archaeology, soils, and hydrology. (EA-4)

The Forest Service needs to require that a specialist trained in rare plant identification will be part of the site-specific design for each management unit. Without this requirement, there is little assurance that rare plants will be afforded appropriate protections and needed management.