



File Code: 1950-1

Date: May 29, 2009

Dear Interested Citizen:

I have signed the Decision Notice (DN) and Finding of No Significant Impact (FONSI) for the Harmon Den Project Environmental Assessment (EA) within the Appalachian Ranger District, Haywood County. The DN discusses in detail my decision and rationale for reaching it. A copy of it, the FONSI, and Appendix H are enclosed.

My decision is subject to appeal pursuant to 36 Code of Federal Regulation (CFR) 215.11. A written appeal, including attachments, must be postmarked or received within 45 days after the date this notice is published in *The Asheville Citizen-Times*, the Responsible Official's newspaper of record (36 CFR 215.2). The appeal shall be sent to: National Forests in North Carolina; ATTN: Appeals Deciding Officer; 160-A Zillicoa Street; Asheville, North Carolina 28801. Hand-delivered appeals must be received within normal business hours of 8:00 a.m. to 4:30 p.m. Appeals may be faxed to (828) 257-4263 or mailed electronically in a common digital format to: **appeals-southern-north-carolina@fs.fed.us**.

Those who provided comments or otherwise expressed interest in a particular proposed action by the close of the comment period are eligible to appeal the decision (as per the *Wilderness Society v. Rey* ruling). Appeals must meet content requirements of 36 CFR 215.14. For further information on this decision, contact Michael Hutchins, Pisgah National Forest NEPA Coordinator at 828-682-6146.

Sincerely,

/s/ *Tina Tilley*

TINA R. TILLEY
District Ranger

Enclosure





United States
Department of
Agriculture

Southern Region
Forest Service

May
2009



Harmon Den

Decision Notice

And

Finding Of No Significant Impact

Appalachian Ranger District, Pisgah National Forest
Haywood County, North Carolina

Decision Notice
& Finding of No Significant Impact

Harmon Den Project

USDA Forest Service
Appalachian Ranger District, Pisgah National Forest
Haywood County, North Carolina

Decision and Rationale

Decision

Based upon my review of the alternatives, I have decided to select **Alternative C** (Selected Alternative) of the Harmon Den Project Environmental Assessment (EA – see also Section 2.2.3, Chapter 2) on the Appalachian Ranger District, Pisgah National Forest and the Project Design Features listed in Section 2.4, Chapter 2 and Appendix F of the Harmon Den Project EA. The Selected Alternative will:

- Harvest about 167 acres using the two-age regeneration harvest prescription and 33 acres using the overwood removal harvest prescription (15-20 ft² basal area retained per acre minimum and up to 25-30 ft² basal area retained per acre in places for scenery and in clumps in stands 451-7a and 7b). This is about five acres less than Alternative C disclosed in Section 2.2.3, Chapter 2 of the EA. These acres were removed from two-age regeneration harvesting to ensure protection to cultural resources in the AA. Harvesting will include developing about 8½ acres total of log landings and skid roads within harvest units (about 1 acre of log landings and skid roads for each 25 acres harvested). Existing log landings and skid roads will be used where available. Skid roads and log landings will be constructed using North Carolina Forest Practices Guidelines (FPGs) and Forest Plan standards (best management practices or BMPs). Following harvest activities, unsurfaced skid roads and log landings will be disked and seeded with an appropriate seed mix to reduce potential for sedimentation and compaction. Skid trails will be used where appropriate, but are different than skid roads because they do not have a blade used to cut into the soil – see definitions at end of Appendix A of the EA.
- Use and maintain existing classified (system) roads through reconditioning and reconstruction which would include replacing undersized or damaged culverts, widening curves and improving drainage structures.
- Replace damaged culverts on the Cold Springs Road (Forest Service Road (FSR) 148) and Cherry Creek. Reintroduce brook trout above the culvert if rainbow trout are not identified in that reach of stream (completed in September 2008 under separate letter of direction).
- Move the gate currently behind a wildlife field off the Cold Springs Road in Compartment 459 up to the Cold Springs Road.
- Add six existing non-system roads (about 3 miles) to the Forest's transportation system as D1 roads; add one existing non-system road (about 0.2 mile) to the Forest's transportation system as a D3 road and place a gate on it; and add one existing non-system road (about ¼ mile) to the Forest's transportation system as a D5 road and place a gate on it (see Roads Analysis, Appendix G).
- Develop about 0.3 miles of temporary roads for harvest-related activities—following harvest-related activities they would be disked, seeded, and closed. No new system roads will be constructed under the Selected Alternative.
- Decommission two existing unclassified (non-system) roads in Compartments 460 and 461 for about 0.3 total miles and one system road (FSR 3522) in Compartment 461 off Interstate 40 for about ¼ mile (about ½ miles total).
- Retain the Rube Rock Trail (TR 314) and the Groundhog Creek Trail (TR 315) between Interstate 40 and Skiffley Creek Road (FSR 357). Volunteer recreation groups will maintain these sections of the trails.
- Close, decommission, and relocate dispersed campsites between Cold Springs Creek and the Cold Springs Road to less sensitive area, where available. Close the existing dispersed site in

wildlife field near Forest Service Road (FSR) 148 day-use parking area.

- Relocate the Cherry Creek Trail (TR 300) out of the riparian area to reduce potential for impacts to aquatic resources.
- Control/manage non-native invasive plant species (including garlic mustard) along roads with herbicides (Glyphosate and/or Triclopyr) and manual treatment (about 5 acres total).
- Perform Timber Stand Improvement (TSI) on approximately 694 acres of natural hardwood regeneration to ensure desired stocking density, species variety, and to control non-native invasive species with hand tools and herbicide using Triclopyr amine and ester formulations applied with the cut surface and streamline applications to release crop trees—non-native invasive species would be treated too.
- Site prepare for natural regeneration using herbicide and hand tools on an estimated 172 acres of regeneration harvest using Triclopyr ester and amine formulations with the cut stump and streamline application methods to ensure establishment of a satisfactory stand within five years after final harvest. All regenerated stands would be monitored for desired stocking density and species variety with a stocking survey conducted 3-5 growing seasons following site preparation. Small enrichment plantings with blight resistant American chestnuts or oaks may occur within hardwood regeneration areas on suitable sites if seedlings become available. Grape arbors, if present ranging in size from 0.1 – 0.5 acres per 10 acres would be retained during the site preparation.
- Release natural regenerated hardwoods on an estimated 211 acres regenerated using a 20% Triclopyr ester formulation by streamline application method 1-3 years following site preparation to control stump sprouts and non-native invasive plants.
- Designate about 608 total acres of old growth communities in Compartments 459, 460, 461, 472, and 473 within Management Areas 3B (timber management), 4C (visually pleasing scenery), and 14 (Appalachian Trail Corridor).
- Prescribe burn about 500 acres between Cherry Creek, The Max Patch Road (SR 1182), and the Cold Springs Road in the eastern portion of the analysis area.
- Prescribe burn a 50 acre stand in Compartment 470 off the Skiffley Creek Road previously

harvested in the Preacher Timber Sale. The stand was burned in 2005.

- Develop a dispersed recreation site along FSRs 148 and 148H just east of the Harmon Den day-use parking area.

My decision is based on a review of the record that shows a thorough analysis of relevant scientific information and a consideration of responsible opposing views.

Rationale

The purpose and need for the proposal is disclosed in Section 1.3, Chapter 1 and summarized below:

- Developing early successional habitat (ESH). Forest Plan standards are to provide at least 5% not to exceed 10% ESH in Management Area (MA) 2A; at least 5% not to exceed 15% ESH in MA 3B; and not to exceed 10% in MA 4D (Forest Plan, page III-31). Currently there is 0% ESH in MAs 2A, 3B, 4D from previous harvesting. The purpose of the 205 acres of regeneration harvesting is to develop additional ESH in the project area and increase the amount of hard mast producing tree species (oaks and hickories).
- Improving timber stand conditions and providing for a continuous supply of timber. The last timber harvest in the project area was over nine years ago (Preacher Timber Sale, 114 acres). The purpose of harvesting about at this time in this AA is to improve stand conditions and provide timber supply.
- Reducing competition and improving species composition in proposed harvest units through hand tools and herbicide use. Competing vegetation reduces vigor and amount of desired tree species. The purpose of removing competition to residual species on about 694 acres is to improve vigor and species composition.
- Controlling non-native invasive species (including garlic mustard) through herbicide use along existing roads and trails, and historical routes. Currently non-native invasive species are established in the project area. The purpose of using herbicides and manual treatments on about 5 acres of non-native invasive species is to control/manage their spread in the AA.
- Appropriately maintaining approved trails; ensuring users are able to safely access them; and trails and roads do not adversely impact aquatic

resources and water quality. I proposed and analyzed closing vehicle access to FSR 3522 off Interstate 40 due to safety. Prior to reaching my decision, the North Carolina State Department of Transportation has closed access by installing a guard rail. My decision will still decommission FSR 3522. In addition, the Cherry Creek Trail is currently contributing sedimentation to Cherry Creek and two non-system roads are excess to long-term management. The purpose of decommissioning FSR 3522 and relocating the Cherry Creek Trail out of the riparian area is to improve aquatic resources in the AA.

- Reducing fuel levels and improving habitat through prescribed fire. The purpose of the 550 acres of prescribed burning is to improve habitat and reduce fuels in the AA.
- Old growth designation. There is currently no old growth within Compartment 460 and there are opportunities to better ensure old growth is well dispersed across forested lands as described in the Forest Plan: *The desired future condition for old growth across the forest is to have a network of small, medium, and large sized old growth areas, representative of sites, elevation gradients, and landscapes found in the Southern Appalachians and on the Forests that are well dispersed and interconnected by forested lands.* (Forest Plan, page III-26). The purpose of designating 608 acres of old growth communities is to better meet Forest Plan direction to provide a network of old growth forests that are well dispersed and interconnected by forested lands.

In reaching my decision, I reviewed the purpose and need for the project and all of the alternatives presented in the EA. I then carefully weighed the effects analyses of the alternatives analyzed in detail and the public comments received on the EA. The Harmon Den Interdisciplinary Team (IDT) conducted field surveys, database queries, and other localized analysis in order to determine effects the alternatives analyzed in detail could have on the area's ecology, including threatened, endangered, and sensitive species. During their analyses, they took a hard look at past, present, and reasonably foreseeable future actions that could be combined with expected effects from the Harmon Den proposal. I believe they provided me sufficient analyses and conclusions to make a reasoned decision.

I believe the Selected Alternative will move resources in the project area towards the desired future condition, will achieve the purpose and need for the

project, and addresses public concerns (see Appendix H below).

Other Alternatives Considered

In addition to the Selected Alternative, I considered two other alternatives in detail: Alternative A – No Action and Alternative B – Proposed Action. A comparison of these alternatives can be found in Section 2.5, Chapter 2.

Alternative A – No Action

Under Alternative A, current management plans, such as existing wildlife management, wildfire suppression, general road maintenance, and special use authorization operations would continue to guide management of the project area (see Section 2.2.1, Chapter 2). I did not select this alternative for several reasons. This alternative would not have provided habitat conditions for wildlife species; improved stand conditions and provided a continuous supply of timber; designated small patch old growth; used herbicides to control/manage non-native invasive populations; controlled/managed competing vegetation; reduced fuels; improved recreationist safety near Interstate 40; nor improved aquatic conditions near Cherry Creek. I believe active management is needed to move the area towards the Forest Plan's desired future condition.

Alternative B – Proposed Action

Under this alternative about 101 additional acres of two-age harvest and release; 95 additional acres of site preparation with herbicides and hand tools; access off Interstate 40 would be maintained; 557 less acres of old growth habitat would be designated; and specific harvest prescriptions for cerulean warblers would have been developed when compared to the Selected Alternative. I did not select this alternative because I believe the project's objectives can still be achieved without harvesting the additional 101 acres of two-age harvest; designating additional old growth better meets Forest Plan objectives; and closing the access off Interstate 40 increases safety to recreationists. In addition, potential adverse impacts to resources in the area are reduced under the Selected Alternative when compared to the Alternative B.

Other Alternatives Not Considered

Section 2.3 of the EA disclosed five alternatives I considered but eliminated from detailed study. Since

they were not considered in detail in the EA, they were not considered in the range of alternatives for my decision.

Public Involvement

The proposal was listed in the January, April, July, October 2008 and January, April 2009 editions of the Schedule of Proposed Actions (SOPA). The proposal was provided to the public, agencies, and organizations for comment beginning on February 26, 2008. An open house was hosted by employees of the Forest Service in Hot Springs, North Carolina on March 6, 2008. A formal 30-day Notice and Comment period for the Shinwhite Project EA began October 6, 2008, and ended on November 5, 2008.

Finding of No Significant Impact

After considering the environmental effects described in the EA, I have determined that these actions will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an environmental impact statement will not be prepared. I base my finding on the following:

1. My finding of no significant environmental effects is not biased by the beneficial effects of the action (Section 2.2.3, Chapter 2 and Appendix E).
2. There will be no significant effects on public health and safety and implementation will be in accordance with project design features (Section 2.4 Chapter 2; Sections 3.4 Chapter 3; and Appendix F).
3. There will be no significant effects on unique characteristics of the area, because there are no park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas in the project area, nor are there local law or requirements imposed for the protection of the environment (Section 3.11, Chapter 3).
4. The effects on the quality of the human environment are not likely to be highly controversial because there is no known scientific controversy over the impacts of the project (Sections 3.1.2, 3.2.1, 3.3.3, 3.4.2, 3.5.3, 3.6.2, 3.7.3, 3.8, 3.9, 3.10.4, and 3.11, Chapter 3).
5. We have considerable experience with the types of activities to be implemented. The effects analysis shows the effects are not uncertain, and

do not involve unique or unknown risk (Sections 3.1.2, 3.2.1, 3.3.3, 3.4.2, 3.5.3, 3.6.2, 3.7.3, 3.8, 3.9, 3.10.4, and 3.11,, Chapter 3).

6. The action is not likely to establish a precedent for future actions with significant effects, because the project is site specific and effects are expected to remain localized and short-term (Sections 3.1.2, 3.2.1, 3.3.3, 3.4.2, 3.5.3, 3.6.2, 3.7.3, 3.8, 3.9, 3.10.4, and 3.11, Chapter 3).
7. The cumulative impacts are not significant (Sections 3.1.2.4, 3.2.1.2, 3.3.3, 3.4.2, 3.5.3, 3.6.2, 3.7.3.6, 3.8, 3.9, 3.10.4, and 3.11, Chapter 3; and Appendix A).
8. The action will have no effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (Section 3.6, Chapter 3). The action will also not cause loss or destruction of significant scientific, cultural, or historical resources (Section 3.6, Chapter 3). A heritage report was completed for this project on April 22, 2009, and was mailed to the State Historic Preservation Office (SHPO) and Tribal Historic Preservation Office (THPO). The SHPO office concurred with the recommendations in the report on May 21, 2009 – archaeological sites will be avoided as specified in the report and a culvert will be relocated with road maintenance funds prior to project implementation to protect a site..
9. The September 15, 2008, Biological Evaluation (BE, Appendix A) concluded: *This proposal would have no effect upon any federally listed (T&E) species. No T&E species or their habitat is known to occur in or near enough the proposed activities to be affected by this proposal. Formal consultation with the US Fish and Wildlife Service is not required. Relocating the existing Cherry Creek Trail would ultimately improve habitat for the southern water shrew, a Regional Forester's S species. No additional past or foreseeable future actions would impact the water shrew. Therefore, it was determined that any alternative considered in the Harmon Den environmental assessment will not impact water shrews or their habitat. No additional Regional Forester's S [sensitive] species or their habitat would be impacted by the proposal.* On May 19, 2009, Forest Botanist Dave Danley determined the orchid in 451-12 was greater yellow lady's slipper, the common variety (*Cypripedium parviflorum* var. *pubescens*) and not small yellow lady slipper, the rare variety (*Cypripedium parviflorum* var. *parviflorum*) and thus requires not additional mitigation.

10. The action will not violate Federal, State, and local laws nor requirements for the protection of the environment. Applicable laws and regulations were considered in the EA. The action is consistent with the Nantahala and Pisgah National Forests Land and Resource Management Plan Amendment 5 (Sections 1.1.1 and 1.3.1, Chapter 1).

Findings Required by Other Laws and Regulations

My decision to implement the Selected Alternative is consistent with the intent of the long-term goals and objectives listed on pages III-1 and III-2 of Forest Plan Amendment 5. The project was designed to meet land and resource management plan standards and incorporates appropriate land and resource management plan guidelines (Sections 1.1.1 and 1.3.1, Chapter 1).

Administrative Review and Contacts

This decision is subject to appeal pursuant to 36 Code of Federal Regulation (CFR) 215.11. A written appeal, including attachments, must be postmarked or received within 45 days after the date this notice is published in *The Asheville Citizen-Times*, the Responsible Official's newspaper of record (36 CFR 215.2). The appeal shall be sent to:

National Forests in North Carolina
ATTN: Appeals Deciding Officer
160-A Zillicoa Street
Asheville, North Carolina 28801

Hand-delivered appeals must be received within normal business hours of 8:00 a.m. to 4:30 p.m. Appeals may be faxed to (828) 257-4263 or mailed electronically in a common digital format to: **appeals-southern-north-carolina@fs.fed.us**.

Those who provided comments or otherwise expressed interest in a particular proposed action by the close of the formal notice and comment period may appeal this decision pursuant to 36 CFR 215.13. Appeals must meet content requirements of 36 CFR 215.14. For further information on this decision, contact Ted Oprean, Project Leader, at 828-877-3350 or Michael Hutchins, Team Leader at 828-682-6146.

Implementation Date

As per 36 CFR 215.9, if no appeal is received, implementation of this decision may occur on, but not before, the 5th business day following the close of the appeal-filing period (36 CFR 215.15). If an appeal is filed, implementation may occur on, but not before the 15th business day following the date of appeal disposition.

/s/ Tina Tilley

5/29/09

TINA R. TILLEY
District Ranger
Appalachian Ranger District

Date

APPENDIX H – RESPONSE TO COMMENTS FOR THE HARMON DEN PROJECT 30-DAY NOTICE & COMMENT PERIOD

General Discussion

The 30-day Notice and Comment period for the Harmon Den proposal was initiated on October 6, 2008, and was completed on November 5, 2008—117 members of the public provided timely comments during this period and 8 members of the public provided untimely comments. The comments received and Agency responses are listed below.

Based on careful review and content analysis, the comments received during the second comment period were grouped into the following 23 “themes”:

Appalachian Trail Mitigation	Botanical Concerns	Climate Change & Carbon Sequestering	Cultural Resources
Early Successional Habitat (ESH)	Ecological Restoration	Economic Returns	Harvest Prescriptions
Herbicides	Hunting Opportunities	Non-Native Invasives	Old Growth Designations
Preference for Alt A – No Action	Preference for Alt B – Proposed Action	Preference for Alt C – Preferred Action	Prescribed Burning
Presidential Executive Order 13443	Recreation Access Along Interstate 40	Roads (adding & decommissioning)	Roads Analysis Process (RAP)
Rube Rock & Groundhog Creek Trails	Scenery	Wildlife Habitat & Populations	

To meet requirements at 36 CFR 215.6(b), the Agency listed each “theme” with the comment received on it (or if more than one comment was received, a representative group of comments for that theme are listed) followed by the Agency’s response.

Appalachian Trail Mitigation

Comments Received

A): *There are three proposed cutting units adjacent to the A.T. [Appalachian Trail]: 451-7a, 451-7b, and 460-10. As originally planned, all three units intruded into the A.T. foreground zone, or in other words, the A.T. Management Area. In Alt. C, the Preferred Alt., it is proposed that these three units be modified so that the proposed cutting areas are not within the A.T. management area. In the case of 451-7a and 451-7b, the northern ends of the proposed units were moved away from the Trail, out of the foreground zone. ATC had hoped that unit 460-10, which is within the A.T. management area, would be dropped; it appears that this unit is too close to the A.T. for too great a distance to allow any other type of mitigation. However, the proposal in Alt. C, the Preferred Alt., states that you will “drop visible portions in A.T. foreground”, implying that some of this unit is not in the A.T. foreground. I suppose that is possible. What means will you use to assure that no harvesting takes place in the A.T. Management Area? We would like the opportunity to verify before cutting takes place, and during leaf-off, that the proposed new boundaries for units 460-10a and 460-10b do not include any of the A.T. management area, i.e. foreground as seen from the A.T.*

B): *Unit 460-6 is also in view of and within a half mile of the A.T. We see that visual mitigation has been proposed in Alt. C, the Preferred Alt., for which the northern boundary of the unit will be moved south to the south slope of the east-west ridge which it is currently near to be outside the A.T. Management Area. Also, some of the USFS Harmon Den Project maps depict this unit as coming right up to the crest of Harmon Den Mountain, which would have two negative consequences: 1. the cutting would create a notch effect along the ridge crest which would be very visible from the A.T.; 2. the cutting would have a*

significant impact on the Rube Rock Trail. We suggest that for both units 460-6 and 461-30 that the eastern boundary of the units be moved to the west, down hill from the ridge crest, to eliminate the notch effect and provide some protection for the recreational experience of hiking the Rube Rock Trail.

C): We are quite concerned about the potential visual impacts of bladed skid trail construction in the units scheduled for tractor logging, units 459-10, 451-19, 460-16 and 461-2 and want you to assure that the Partial Retention VQO will be met in these units visible in the A.T. middleground.

D): Portions of units 461-2, 459-12, and 451-19 will also be visible in the A.T. middleground and need to meet a VQO Partial Retention, as prescribed by the forest plan. Appropriate mitigation, such as increasing the reserved basal area, or reshaping the cutting units, needs to be assured.

E): I concur with the extensive comments regarding acceptance of Alternative C made by Morgan in his letter dated October 24, 2008, except would like to add that Stand 460- 10 be dropped completely as it is too close to the AT view shed/ management area. I mentioned that in my comment letter dated May 30, 2008. I would also appreciate any consideration that you can provide for preventing logging operations in the AT area during the thru-hiker season - April and May for the "northbounders".

Agency Responses

A): A Forest Service Landscape Architect will work with timber marking crew members to ensure treatment areas are outside visible foreground as per Forest Plan standards and direction as seen from the Appalachian Trail. Alternative C reduces stand 460-10 by 16 acres when compared to Alternative B to address scenery concerns (see also Section 2.4.1, Chapter 2

B): Alternative C reduces stand 460-6 by 10 acres when compared to Alternative B to address scenery concerns and Alternative C drops stand 461-30 from harvesting for biologic resource concerns (see also Section 2.4.1, Chapter 2).

C): Forest Plan standards and guidelines for scenery would be achieved under Alternative C for all stands. Skid trails, skid roads, and log landings would be vegetated and disked following harvest activities to decrease potential for impacts to aquatic resources (Section 2.4.1, Chapter 2). These actions would also increase vegetation reproduction that would serve as visual screening.

D): Forest Plan standards and direction for scenery would be achieved under Alternative C for all stands (see also Section 2.4.1, Chapter 2).

E): Stand 460-10 under Alternative C meets scenery Forest Plan standards and does not need to be dropped due to scenery concerns (see also Section 2.4.1, Chapter 2). Restricting harvesting during April and May would reduce an operating season by 25% since typical operating seasons run from April to November. This in turn could increase the time allotted for timber sale contracts over the typical two year contract periods. Due to the size of the units along the AT it is not expected that the harvest activities would cause a significant impact to recreationists. The AT could be posted informing hikers of the operating periods.

Botanical Concerns

Comment Received

A): *The forest in Stand 451-12 is among the healthiest and most diverse on Pisgah National Forest and it would be much diminished by two-aged logging. Besides including valuable hard mast provided by many large chestnut oaks, white oaks, northern red oaks, black oaks and pignut hickory, the herbaceous layer in the upper portion of the stand is well developed and includes at least three species on the NC watch list: orange fruited horse gentian (*Triosteum aurantiacum*), yellow lady's slipper (*Cypripedium parviflorum* var. ?), and ginseng (*Panax quinquefolia*). Furthermore, stand 451-12 has numerous individuals of at least four species of trees present that exceed 200 years in age and provide excellent den and nesting habitat. [W]e will not support a project that proposes to log stands that have such ecological, aesthetic and recreational value.*

Agency Response

A): Stand 451-12 has two predominate community types: Montane oak-hickory Forest and Rich Cove Forest. These are both common community types within the AA and not excluded from harvest-related activities by Forest Plan standards and direction. Herbaceous and tree species diversity is expected to recover over time (80+ years) after harvest. Most species will recover within canopy closure (within 15 years). "Watch list" species orange fruited horse gentian (*Triosteum aurantiacum*), lesser yellow lady's slipper (*Cypripedium parviflorum* var. *pubescens*), and ginseng (*Panax quinquefolia*) are not protected species under Forest Plan standards and direction or under the Endangered Species Act (see FONSI item #9 in decision notice).

Climate Change & Carbon Sequestering

Comments Received

A): *This ecological rationale alone is more than sufficient reason not to harvest these exceptional stands. However, the project development should also consider climate change and the impacts from climate change on potential recovery of ecological communities. In particular, the project analysis should address the impact of logging forest communities such as cove hardwood and other healthy forest communities under climate change conditions and the likelihood of reestablishing these communities with a natural complement of species and structure.*

B): *Likewise the project analysis should address the emerging scientific research that is documenting that harvesting old growth and mature forest will release more carbon than can be re-sequestered by young forests for long periods. (Casperson 2000, Harmon et al 1990, Houghton et al 1999, Johnson and Curtis 2001, Dixon et al 1994, Turner et al 1995). A recent study by Depro et. al. (2008) documents the impact on carbon sequestration from timber harvest on national forest lands. Old growth and mature forest sequesters stable amounts of carbon at maximum or near maximum levels. Harvesting mature forest will release carbon to the atmosphere. The Forest Service should be addressing the value of mature and old growth forest in sequestering carbon. Old growth and mature forest that sequesters the maximum amount of carbon is a valuable carbon sink that should be conserved and factored into the analysis along with other ecosystem values in determining project actions".*

Agency Responses

A): The proposal would harvest either 306 acres or 205 acres, depending on the action alternative and would not harvest within about 9,000 of the remaining acres in the Harmon Den AA. In addition, 46% of the 9,501 acre AA is within management areas where harvesting is not appropriate under the Forest Plan (MAs 4C, 5, and 14). Harvesting cove hardwoods would not occur under the proposal as disclosed in Table 3-5, Chapter 3 of the EA. Reforestation is necessary under (1) the Forest Plan: *Establish a satisfactory stand on regeneration areas within 5 years after final harvest. Emphasize natural regeneration for hardwood forest types.* (page, III-35); (2) Forest Service Manual 2470.3: *Before scheduling stands for regeneration harvest, ensure based on literature, research, or local experience, that stands to be managed for timber production can be adequately restocked within 5 years of final harvest. Five years after final harvest means 5 years after: a Clearcutting, b. Final over story removal in shelter woodcutting, c. The seed tree removal cut in seed tree cutting, d. Selection cutting;* and (3) the National Forest Management Act: *[a]ll forested lands in the National Forest System shall be maintained in appropriate forest cover with species of trees, degree of stocking, rate of growth, and conditions of stand designed to secure the maximum benefits of multiple use sustained yield management in accordance with land management plans. [A]ll national forest lands treated from year to year shall be examined after the first and third growing seasons and certified by the Secretary in the report provided for under this subsection as to stocking rate, growth rate in relation to potential and other pertinent measures (Section 4).* The Harmon Den AA is not scheduled to be deforested (converted from forest conditions to non-forest conditions) under the proposal, ensuring a young forest is able to regenerate and continue to sequester carbon.

Climate change is outside the scope of this proposal and is best addressed at the Forest planning level. Additional information may be found at <http://www.fs.fed.us/climatechange/>. Most Forest Service projects contribute little to climate change, either positively (via carbon sequestration) or negatively (via fire or equipment emissions). The differences are difficult to model at the project scale, as there is currently no generally accepted method. There is likely little difference between alternatives (including no action), in the context of the global scope of the issue. When leakage is taken into consideration, it is unlikely that the selection of any specific alternative will influence carbon sequestration, and climate change will rarely be a significant issue for vegetation management projects.

B): There is plenty of research on positions of global climate change as evidenced by running a search on climate change on the internet. A recent synthesis of science findings stated: *Since forests play an important role in storing carbon, having more forest cover is a positive force in lowering atmospheric carbon levels. Conversion of lands currently in other uses to forests (afforestation), reforesting quickly and aggressively after harvest or natural disturbance, keeping forestland in forest use and managing forests for fire resilience all have obvious positive effects. Beyond that, recent research by forest scientists has confirmed that wood products continue to store carbon.*

[F]orest scientists have been studying the interactions of forests and climate for some time, and while there is, as might be expected, some complexity and contradiction, there are forest management strategies that can help in sequestering carbon or reducing its emission into the atmosphere. These techniques include: ■ reducing forest densities to keep trees healthy and minimize the risk of stand-replacing fires and insect problems (for example, the 2002 Biscuit Fire in southwestern Oregon released about a fourth as much carbon into the atmosphere that year as was emitted statewide by the burning of fossil fuels); ■ keeping forestland in forest use (this means ensuring that private forestlands can be managed profitably as forests); ■ afforesting former forestlands that have been converted to non-forest uses and reforesting quickly and aggressively after harvest or natural disturbance; ■ using wood products and energy generated from wood in lieu of using fossil fuel intensive products such as steel and concrete and energy generated from fossil fuels; and ■ changing forest management strategies to

sequester carbon through thinning, increasing rotation lengths and other techniques can provide forest landowners an opportunity to profit from the sale of carbon offsets. (Preface; *Forests, Carbon and Climate Change – A Synthesis of Science Findings*; 2006) www.oregonforests.org/media/pdf/CarbonRptFinal.pdf.

Dr. James M. Vose, Project Leader at Coweeta Hydrologic Laboratory, reviewed Depro et. al. (2008) and other research studies noted in the comments. He used published literature from the southern Appalachians to compare actual carbon accumulation rates and pool sizes in young stands (~20 years in age), 85 year old stands; and old growth at Joyce Kilmer. The 85 year old stands accumulated carbon fastest, while the old-growth stand had the largest carbon pools. Dr. Vose agrees with Depro's model-based conclusion that harvested stands will not accumulate enough carbon in 40 years to replace what is lost to emissions after harvesting old and mature forests; however, this conclusion does not account for standard silvicultural practices in the southern Appalachians. While Depro's premise is plausible when examining the re-accumulation of carbon on clearcut stands from harvest age to 40 years, his analyses does not accurately reflect Forest Plan standards for minimum 80 year rotations in hardwood stands (Forest Plan, page III-33). Rotation ages can typically be longer than 80 years and the 40-80+ year range of a forest is the period where the majority of carbon is accumulated. In his analysis, Dr. Vose estimated that harvested stands (including old-growth) that re-grow for a typical rotation length (i.e., in 80+ year range) have a carbon neutral impact (i.e., carbon lost to emissions is re-accumulated over an 80+ year rotation) when compared to carbon accumulation in newly harvested stands (0-40 years). See also Agency Response to Comment A above.

Cultural Resources

Comment Received

A): *The EBCI THPO [Eastern Band of Cherokee Indians Tribal Heritage Preservation Office] accepts the invitation to act as a consulting party of the above-referenced Section 106 undertaking(s) as mandated under 36 CFR 800. The project's location is within the aboriginal territory of the Cherokee People. Potential cultural resources important to the Cherokee people may be threatened due to adverse effects expected from the level of ground disturbance required for this project. Please send all related archaeological, cultural resource and historical investigatory materials, including the Phase I report, completed by the applicant to this office for review and comment.*

Agency Response

A): A cultural survey and report pursuant to 36 CFR 800 was completed prior to a decision being made. Several sites were identified and buffers were applied to harvest areas to ensure protection of the sites eligible or potentially eligible for placement on the National Register of Historic Places.

Early Successional Habitat (ESH)

Comments Received

A): *The early successional species have been and are currently declining on the USFS lands due to the lack of sustainable habitat. As the 0-10 age class has dwindled, so has the species that utilize it. As a TN resident, I have seen this happen on the Cherokee National Forest.*

B): *The Commission is concerned about the lack of early successional habitat on National Forest lands in western North Carolina and supports timber harvest to create this habitat type. The need for forest disturbance is revealed in the early scoping document which stated that 0% early successional habitat exists in the project area and no timber management activity of any kind has occurred here for over 15 years, though the EA indicates that some harvest occurred more than 8 years ago. The Commission strongly supports the original amount of timber harvest proposed in the earlier scoping document (Proposed Alternative B) instead of Preferred Alternative C. Quality and even poor quality early successional habitat is at a premium on National Forests in NC and every opportunity to increase this habitat type should be taken by the USFS.*

C): *The age structure of forests on National Forests in Western NC is way too old. The Forest Service needs to begin interspersing different aged stands across the Forest to improve habitats for wildlife such as deer and grouse.*

D): *We strongly support the proposed activities outlined for Alternative B in your Harmon Den Project analysis as they will vastly improve this area for wildlife, provide a more balanced age-class distribution of forest structure, and provide needed wood fiber for local forest product industries. It is clear that there are opportunities through regeneration harvesting, thinning and wildlife opening development to achieve the desired conditions described in the proposal. As pointed out in your letter, there is no early successional structure (0-10 yrs.) in the analysis area. It is imperative to maintain a leave basal area at or below 20 sq.ft./acre in the two-age regeneration areas and shelterwood cuts to allow for the development of quality early successional habitats for wildlife and promote a better mix of natural regeneration for future stands. We note that your target leave basal area ranges from 15 to 20 - good. We think it should be on the low end of this range to ensure proper stand regeneration and stem density to provide quality habitat for early succession species.*

Agency Responses

A): The EA disclosed in Section 1.3 that there is currently no ESH in Management Areas (MAs) 2A, 3B, and 4D from previous harvesting in the analysis area. These MAs are identified as suitable for timber harvesting by the Forest Plan. The EA stated the purpose of the approximately 306 acres of regeneration harvesting proposed under Alternative B is to develop additional ESH in the project area and increase the amount of hard mast producing tree species (oaks and hickories). The Agency recognizes the importance of a diverse range of habitat across the Forest and Alternatives B and C provide ESH to meet project and Forest Plan objectives.

B): The last timber sale to have an active contract was more than eight years ago (Preacher Timber Sale) – actual harvesting may have been longer than eight years. See also Agency Response to A above.

C): See Agency Response to A above.

D): The Forest Plan identifies that the two-aged regeneration harvest method is optimally achieved when basal area retention is as low as 15 to 20 square feet per acre and that to meet wildlife and scenery objectives, as much as 50 square feet per acre may be retained (Forest Plan, page E-2). For the Harmon Den proposal, the target retention basal area is 15-20 square feet per acre and up to 25-30 square feet per acre for scenery mitigation (Table 1-1, Chapter 1; Table 2-1 and Section 2.4.1, Chapter 2).

Ecological Restoration

Comment Received

A): *The focus of the Harmon Den project should be on ecological restoration. There are plenty of stands in the Harmon Den project area that show depauperate [Arrested in growth or development; stunted] species diversity from past management. We urge the Forest Service, as stewards of the public lands, to address the forest conditions created by past management and conduct ecological restoration activities to restore more natural conditions to these areas. We can not support logging operations in mature forest that is recovering and just now reaching a level of structural and species diversity found in undisturbed forest. There are many restoration activities that we could support in the stands that have been damaged by earlier logging. Appropriate thinning, creating light gaps comparable to those occurring in natural old-growth forest would create room for both species diversity and vertical diversity in these stands that is currently lacking. In contrast to these stands, many of the older stands show excellent species diversity of canopy trees and herbaceous species, demonstrating recovery from logging that occurred in the later part of the 19th century and early 20th century.*

Agency Response

A): Forest Service Manual 2020 defines ecological restoration as: *[t]he process of assisting the recovery of resilience and adaptive capacity of ecosystems that have been degraded, damaged, or destroyed. Restoration focuses on establishing the composition, structure, pattern, and ecological processes necessary to make terrestrial and aquatic ecosystems sustainable, resilient, and healthy under current and future conditions.*

As stated on the National Forests in North Carolina's website (<http://www.cs.unca.edu/nfsnc/restoration/restoration.htm>): *Ecosystem restoration is key to addressing many of today's natural resource management challenges. Through restoration, ecological systems are returned to their natural resilience and sustained. The National Forests in North Carolina have been working with partners organizations and research scientists to identify and work toward restoration goals for the Nantahala and Pisgah National Forests. Restoration is a key concentration of the Southern Region's strategic framework. A region-wide group of interested individuals met with Forest Service managers in December 2007 to identify possible restoration priorities for National Forest lands in the Southern Appalachians. They identified five Southern Appalachian restoration focus areas which had broad support at this meeting [(1) Restoration of healthy stream systems within healthy watersheds; (2) Restoration of rare native communities; (3) Restoration of fire-dependent ecosystems; (4) Restoration of diversity in low-diversity forest stands; (5) Restoration of viable native plant communities by controlling invasive species]. *Representatives from the National Forests in North Carolina, USFS Southern Research Station, and interested organizations and individuals gathered in Asheville at two summits in July and August 2008 to help develop specific restoration goals most important for the Nantahala and Pisgah National Forests. Participants reviewed the recommended restoration focus areas from the December meeting as well as restoration needs identified by scientists from the Southern Research Station. The following topics were identified by July and August 2008 summit participants as restoration focus areas [Topics] (1) Restore stream systems and watersheds; (2) Restore rare native communities; (3) Restore fire-dependent and fire-adapted ecosystems; (4) Restore diversity in low-diversity forest stands; (5) Restore viable native plant communities by controlling invasive species; (6) Restore wildlife habitat; and (7) Restore threatened and endangered species [since combined with Topic 2].**

This ecological restoration process is being initiated on the Pisgah National Forest in the Area 5, Courthouse, and Headquarters analysis areas. The Harmon Den proposal was initiated before this ecological restoration process was established; however, there are activities in the Harmon Den proposal that address some Topic restoration goals—Topic 1 Restore Stream Systems;

Topic 3 Restore Fire-Dependent Ecosystems; Topic 5 Restore Viable Native Plant Communities by Controlling Invasive Species; and Topic 6 Restore Wildlife Habitat. Topic 1 is addressed through replacing a damaged culvert on Forest Service Road 148; moving a gate; decommissioning dispersed campsites within Cold Springs riparian area and relocating them outside riparian areas; reintroducing brook trout to Cherry Creek; relocating Cherry Creek Trail out of riparian area; and decommissioning roads. Topic 3 is addressed by prescribed burning in Compartment 470. Topic 5 is addressed by controlling/managing non-native invasive species along roads. Topic 6 is addressed by developing ESH and cerulean warbler habitat. Harvesting stands as proposed under Alternatives B and C is necessary to meet Forest Plan objectives within Management Area 3B: *A sustainable supply of timber is achieved through regulating the growth and removal of trees through time.* (Forest Plan, page III-71). While three stands have an average age of 102 years (451-7a, 451-7b, and 451-12, Table D-2, Appendix D, EA) the Forest Plan does not preclude harvesting them due to their age, nor does the Forest Plan establish an upper age limit that restricts timber harvesting. Thinning stands instead of regenerating them using either two-age or overstory removal prescriptions would not achieve ESH objectives.

Economic Returns

Comment Received

A): *Alternative A is the most fiscally responsible choice. In this challenging economic climate, the federal government must be even more concerned than ever about the use of its financial resources. Alternative C would actually cost taxpayers \$23,294. Alternative B would potentially result in a profit of \$47,562, but the indirect costs to recreation, tourism, and the health of the watershed as a result of the timber sale would far outweigh this profit margin. [T]he \$229,000 - \$280,000 budgeted for Alternatives C and B respectively could be far better invested in non-extractive projects in the national forests, particularly in popular recreation areas like Harmon Den. Especially in these difficult economic times, and with the need for action on global climate change, the U.S. Forest Service can be curtailing extractive commercial timbering projects and promoting resource protection.*

Agency Response

A): Financial efficiency estimations are based on the previous quarter's market indices and may or may not be an accurate reflection of future indices. That said, potential economic returns realized from a timber sale is not part of the purpose and need for the proposal; habitat development is and the proposal develops much-needed early successional habitat in the analysis area [there is currently no early successional habitat in the analysis area (Section 1.3, Chapter 1)]. The development of early successional habitat will improve habitat for many game and non-game wildlife species. There are indirect economic returns from hunters who would use the area following habitat development that is not part of the financial efficiency analysis because those revenues are determined for economic analyses. As per Forest Service Handbook 2409.18, each timber sale in the project proposal expected to exceed \$100,000 in advertised value requires a financial analysis to determine financial efficiency.

Harvest Prescriptions

Comments Received

A): *I would also like to suggest that several 5 acre clearings be integrated within the timber cut to increase stem density for improved cover and browse.*

B): *I would prefer a combination of plans as described under the (B) and (C) proposals. Any timber harvest on public land should be done to improve the quality of the timber on the tracts as well as provide a significant improvement in potential wildlife habitat. It should be done in such a way that trees of varying ages are left standing and protected during the harvest so that the sight will recover more quickly. So called "clear cuts" should not be allowed except under very extreme circumstances that demand such a practice and only after an appropriate period for public comment. Any timber harvest on public lands should produce a net income above all expenses to the USFS.*

C): *We are disappointed that there are no plans for any thinning of maturing stands that would pay future dividends on higher quality hardwood and softwood timber. It would also create small canopy openings used by a number of wildlife species.*

Agency Responses

A): Alternative B has an average harvest stand size of 28 acres with a minimum size of 12 acres and a maximum size of 40 acres. Alternative C has an average harvest stand size of 23 acres with a minimum size of 11 acres and a maximum size of 39 acres. It is feasible for harvest stands to be five acres in size, but the smaller the size the increase in unit costs and efficiency. The average size of the stands proposed improves efficiency of harvest activities while reducing harvest costs.

B): Clearcutting is not proposed with this project. The trees that are retained would adhere to the following priorities to address silviculture and wildlife objections: white oak, red oak, hickory, black oak, and chestnut oak where they occur

C): Thinning stands instead of regenerating them using either two-age or overstory removal prescriptions would not achieve ESH objectives. Alternatives B & C each have a smaller sized harvest stand, 12 and 11 acres respectively.

Herbicides

Comments Received

A): *The Commission supports the use of herbicides to control invasive plants and as a method for timber stand improvement. Preference for oak species should be given in any site preparation activities because of the decline of the oak component in forests of western North Carolina.*

B): *We also support the use of herbicides in pre/post harvest, TSI activities, exotic invasive species control and other management activities.*

C): *However, the positive old-growth recommendations do not outweigh the long-term negative impacts of the logging, road building, and herbicide applications of Alternative C [and] Alternative B.*

Agency Responses

A): Comment is noted. The proposal is to use both hand tools and herbicides for timber stand improvement (TSI) as disclosed in the EA (Section 1.2, Chapter 1). Oak is a priority species to be retained during TSI.

B): Comment is noted. See Agency Response to Comment A above.

C): Adverse impacts from herbicide application is not expected as disclosed in the EA (Section 1.5.7, Chapter 1; Section 3.4, Chapter 3; and Appendix F).

Hunting Opportunities

Comments Received

A): *Those of us who cannot afford to buy large tracts of land, or belong to a special members club, depend on our public lands to hunt, fish and hike. We are lucky if we can afford a box of shells and the gas to get to a hunting area.*

B): *I am in receipt of an email from Ruffed Grouse Society. They are campaigning to not revise the plan to move from alternative B to C. I love to grouse hunt and have seen increases in their numbers, especially this year, in several areas of Harmon Den.*

Agency Responses

A): An objective of the proposal is to develop ESH for wildlife in the analysis area (AA) which in turn would improve wildlife habitat diversity (Section 1.3, Chapter 1).

B): Alternative B would develop about 101 more acres of ESH when compared to Alternative C. However, Alternative C develops 205 more acres of ESH than Alternative A, the existing condition. Any ESH developed would improve habitat conditions over current conditions for species that favor this type of habitat.

Non-Native Invasives

Comments Received

A): *We have no major objections to either of the proposed action alternatives for this project and are pleased to see the efforts to control invasive exotic species.*

B): *The project area is already heavily affected by invasive exotic plants, particularly along the roads. The EA (p. 7, Section 1.5.2) inexplicably rejects the potential of management activities increasing infestation of invasive exotic plants as a significant issue! This assertion not only is not backed up by research and experience, but is directly contradicted by research and experience. Elsewhere in the EA, the reality is documented more accurately: "Non-native invasive plants persist in the area by continual disturbance. For example, a maintained road shoulder or wildlife field often has persistent ruderal and non-native plant species. These areas are often maintained in an early successional state for wildlife or human benefit. Therefore, it is expected that this proposal could increase the persistence of non-native vegetation in the analysis area. Because it disturbs more acres, Alternative B would have more potential increases in non-native invasive plants than Alternative C; however, pre-treatment of existing non-native invasive species along with monitoring and follow-up treatment are expected to reduce adverse increases and effects of these plants in the analysis area." The EA seriously errs in dismissing the potential for management activities to increase the infestation of invasive exotic plants. Successful restoration activities should deal directly with the serious invasive exotic problems in the Harmon Den area and the potential for management activities to exacerbate*

these problems. Not acknowledging the potential for management activities to create additional avenues of infestation is not a credible argument. The Harmon Den project proposal is troubling because it would disturb mature forest that currently has the least problems with exotic invasive plants. Ecological restoration activities that concentrate activities in areas that already have infestations while aggressively suppressing these infestations could gain some control of these exotics. Limiting logging and road building activities in mature, healthy forest that currently have little infestation is another important component of getting control of the invasive exotic problem in Harmon Den. Reducing road mileage while making invasive exotic control an important component of road decommissioning is another important component of adequately addressing the invasive exotic plant problem in an ecological restoration framework.

C): We agree with the assessment of the Harmon Den Project's implications for the persistence and increase of NNIPs stated on page 30 of the EA and encourage greater candor and consistency in addressing non-native invasive plants as a substantive issue. By decreasing the mileage of roads and avoiding logging in mesic forest types like Rich Cove Forest, the Harmon Den Project could truly reduce the impact of non-native invasives in the project area. Until such measures are taken, recognizing that the Harmon Den Project will increase the impacts of non-native invasive plants is important for the Forest Service to maintain integrity. A supporting example of our views regarding non-native invasive plants, soil disturbance and road reconstruction is illustrated on Hurricane Ridge in Stands 457-17 and 457-29, logged and thinned, respectively, as part of the Hurricane Creek Project. Garlic mustard is now the dominant herb in both of these stands as a result of the soil disturbance caused by logging, and FSR 3570E is the source of a large garlic mustard population that is invading mature forest, as well. We had hoped to make a field trip to that area with Forest Botanist David Danley and District Ranger Tina Tilley this year but schedules prevented that from happening. We will attempt another visit next May, when garlic mustard is at the peak of its life cycle.

Agency Responses

A): Comment is noted.

B): The EA disclosed in Section 1.5.2, Chapter 1: *Management activities may increase infestation of invasive exotic plants - Non-significant due to project design features.* Based on previously completed projects of similar nature across the Pisgah National Forest, the design of the proposal (which includes treatments of non-native invasive plants) is expected to reduce the potential for additional non-native invasive plant infestations in the AA. This issue was considered non-significant because no alternative was designed to treat them differently – both action alternatives propose to control/manage them the same (assessment/herbicides/monitor/follow-up treatments as needed). Significance in Section 1.5 of the EA is to determine the range of alternatives to consider [see 40 CFR 1500.1(b), 1500.2(b), 1500.4(c), and 1501.7(3)]. That said, not doing a management action like harvesting timber would not eliminate non-native invasives in the area. The EA disclosed in Section 3.3.2, Chapter 3: *There would be no potential increase in non-native invasive plant species as a result of ground disturbing actions. However, there would also be no control measures implemented to reduce the continued spread of these species. Based on observations across the Forest, it is expected that non-native invasive plant species would continue to increase in the analysis area* (emphasis added). The project has been designed with the purpose of reducing non-native invasive species by using hand tools and herbicides to control/manage populations (Section 1.2, Chapter 1 and Table 2-1, Chapter 2).

The EA disclosed in Section 3.3.3, Chapter 3 that with increased management action, there is increased potential for non-native invasives to spread: *It is expected that there would be a temporary increase of ruderal (weedy) species of plants under all alternatives. Of the action alternatives, Alternative B would result in about 306 acres of disturbed area for the increase in ruderal species and Alternative C would result in about 205 acres of disturbed area for the increase in ruderal species. These species are often prevalent during the initial stages of succession. This is particularly true near constructed roads and log landings. Because Alternative B would have more harvesting and landings/skid roads compared to Alternative C (about 101 more harvest acres and 4 more acres of landings/skid roads respectively), the amount of area exposed to non-native invasive species is higher than Alternative C. A high percentage of these ruderal species are non-native. A temporary increase of non-native plant species in the proposed activity areas is expected. Many of these species have benefits for wildlife and erosion control.*

The EA also disclosed in this section that: *However, as succession progresses, most ruderal species tend to become much less prevalent and generally do not persist or spread to other areas. Furthermore, the action alternatives include requirements for monitoring and treatment of non-native invasive species as needed to control/manage them in the AA* (emphasis added). In addition, monitoring and follow-up treatments as necessary would be implemented to further reduce potential for spread (Section 2.4.2, Chapter 2).

C): A field review of the stands in question can be scheduled for May 2009. See also Agency Response to Comment B above.

Old Growth Designations

Comments Received

A): *We applaud the old growth recommendations contained in Alternative C and encourage the U.S. Forest Service to adopt those old growth recommendations regardless of the outcome of the Harmon Den proposal.*

B): *Our final area of concern deals with the proposed additions to the old growth designations. While we support the additions to Large Patch 17 proposed in Alternative C, we are disappointed that our recommendations to protect existing old-growth have not been incorporated into any project alternatives. From a conservation perspective, protecting existing old-growth is a cornerstone of landscape level old-growth forest restoration. We reiterate our pre-scoping and scoping request that the remainder of Compartment 470 be designated for old-growth management to protect the existing old-growth at the headwaters of Runyon Creek. All of compartment 470 is currently in MA 5 and old-growth management is consistent with the goals and objectives of that prescription.*

C): *Please keep the old growth acreage to 51 acres.*

D): *We support the designation of the additional acreage of old growth to the Large Old Growth Patch #17. This addition to the large OG designation improves the boundaries of the patch to avoid an excessively narrow section and better fulfills the intent of the large patches to provide landscape scale old growth refuges. We also support the addition of areas along the Appalachian Trail as old growth. This increases the effectiveness of the old growth system as a corridor. While we are in strong support of the proposal in Alt C to expand Large OG Patch #17, we feel that additional areas of Compartment 470 in MA 5 should be added to the OG patch. In particular stands 470-1, 470-2, 470-3, 470-4, 470-5, 470-6, 470-8, and 470-34 in the upper reaches of Runyon Creek should be designated as old growth. Portions of these stands have well developed old growth characteristics and the addition would help bolster the robustness of this old growth patch which is an essential landscape conservation connection between the Great Smoky Mountains and the Bald Mountains. As pointed out in our scoping comments the Harmon Den area is a bear sanctuary, but it is also an important corridor for bear. This area is the most important corridor for bear traveling between Great Smoky Mountains National Park and areas of Pisgah National Forest. In particular the tunneled ridge along I-40 provides the only unimpeded travel corridor for bear between the Smokies and national forest, and the Harmon Den area is just north of this passage. Management with this in mind is critical to maintain the health of this corridor. Maintaining old growth and mature forest and maintaining and restoring low road density is important for the functioning of this area as habitat and corridor. Because of this the old growth designations in compartment 470 are important.*

E): *Old growth designation precludes habitat management that involves opening the forest canopy to allow sunlight to penetrate to stimulate early succession plant growth that is beneficial to wildlife. Responsible harvest of our renewable timber resources is positive management for wildlife and provides many public benefits.*

Agency Responses

A): Comment is noted.

B): Compartment 470 is within Management Area 5 where *Emphasis is on providing large blocks of backcountry and Timber production is not appropriate* (Forest Plan, page III-89). This means that MA 5 is part of the unsuitable land base of the Pisgah National Forest with no scheduled timber harvesting. Old growth resources have specific direction in the Forest Plan that states: *Salvage operations will not be allowed unless needed to protect the integrity of the old growth patch* (page III-28). Under either scenario, MA 5 and designated old growth are not scheduled for timber harvesting.

Compartment 470 is 1,187 acres in size and currently has 966 acres designated as large patch old growth—this equates to over 81% of the compartment currently designated as large patch old growth with the remainder of the compartment designated as unsuitable for timber harvesting. The Harmon Den project proposed designating old growth in areas that met Forest Plan standards and direction and included areas along the AT and the I-40 corridor. Alternative C designates more old growth than minimum Forest Plan standards to better ensure a network of old growth communities in the AA—over 550 more acres.

C): Alternative B addresses this comment.

D): See Agency Response to Comment B above.

E): Old growth designation provides necessary habitat for specific wildlife species while ESH provides necessary habitat for other wildlife species. One of the objectives of the Harmon Den proposal was to develop ESH to address the current lack of ESH. Designating old growth habitat was to at least meet Forest Plan standards and direction (Alternative B) and improving upon the current network of old growth (Alternative C).

Preference for Alt A – No Action

Comment Received

A): *Alternative A is in the best interest of the forest and the majority of users of the forest. Alternative A prevents long-term negative water quality impacts to the Pigeon River and its tributaries. Alternative A is the most fiscally responsible choice. Alternative A provides the best and most responsible option for the protection of endangered, threatened, and rare species.*

B): *Alternative A prevents long-term negative water quality impacts to the Pigeon River and its tributaries. The nearly pristine watersheds surrounding the proposed logging areas would indeed be damaged by logging, road building, and herbicide applications. Despite the best efforts of the U.S. Forest Service, the use of heavy machinery on steep slopes, the removal of large trees, and the application of pesticides across hundreds of acres will clearly and necessarily have adverse and long-term impact on the health of aquatic life in the watershed.*

C): *Alternative A provides the best and most responsible option for the protection of endangered, threatened, and rare species. Both Alternative B and C would have a negative and long-term impact on the habitats of species, and the recommendation not to consult with U.S. Fish & Wildlife is both dangerous and irresponsible.*

Agency Response

A): Preference for Alternative A is noted. Alternative A does not propose actions and does not address the project's stated purpose and need [Section 1.3, Chapter 1 Harmon Den Environmental Assessment (EA)]. Potential adverse impacts on viewsheds were considered (Section 3.7, Chapter 3) and an additional alternative (Alternative C) was developed as a result that had reductions in harvest acres and additional basal area retained as compared to the proposed action (Section 1.5.8, Chapter 1 and Sections 2.2.3 and 2.4.1, Chapter 2). Harvesting has occurred in the analysis area in the past (most recently in 1999) and many portions of the analysis area is identified as part of the suitable land base for timber harvesting (Management Areas 2A, 3B, and 4D, Section 1.3.1, Chapter 1).

B): The Agency disagrees with the conclusion that proposed harvesting and harvest-related activities would have long-term negative impacts to water quality. As stated in the EA, about 50 total linear feet of un-named tributary streams out of 120,500 total feet of streams in the analysis area would be impacted (turbidity) from culvert replacement (0.04%). The EA disclosed: *This turbidity would be minimized by the implementation of BMPs and Forest Practice Guidelines (FPGs). As a result, no measurable direct adverse impacts to aquatic habitat or organisms are expected to occur from the improvement of access into the area.* (Section 3.1.2.1, Chapter 3). In addition related to water quality, the EA disclosed: *North Carolina Forest Practices Guidelines (NC-FPGs) and Forest Plan standards (BMPs) would be implemented during harvest activities. Applications of Forest Plan standards are intended to meet performance standards of state regulations. Visible sediment derived from timber harvesting, defined by state regulations, should not occur unless there is a failure of one or more of the applied erosion control practices. Should any practice fail to meet existing regulations, additional practices or the reapplication of existing measures would be implemented as specified by state regulations. According to the NC Forestry BMP Implementation survey 2000 thru 2003: "[i]mplementation of BMPs is critical in protecting water quality". Monitoring of BMP structures on the English White Pine Project (on the Pisgah National Forest) occurred during a two inch rain event in the summer of 2007. Straw bales, mulching, and seeding had been installed two weeks prior to the event. The stream adjacent to the activity area was flowing clear and void of sediment from the associated activities; indicating that effective implementation of NC-FPGs and BMPs greatly reduces potential for adverse impacts on streams. There is no plan to harvest within any 100 foot riparian area of perennial streams under the Harmon Den Project area. According to the Forest Plan: "Under these conditions, no increase in water temperature is anticipated under any of the alternatives. Since riparian-area treatment is not expected under any alternatives, availability of woody debris would be positively influenced if there was no harvest anywhere within the riparian zone on each streambank" (Vol. 1, page IV-36). The culvert installations for this project are associated with existing roads and therefore would not cause any disturbance to the existing riparian vegetation. Water quality should not be adversely affected because Forest Plan standards and NC-FPGs are followed, and timber sale contract clauses are implemented. Stream temperatures would not be adversely affected because adequate shade would be maintained along perennial and intermittent streams. In the past, implementation of NC-FPGs has protected streams during similar actions. Long-term adverse impacts from these similar past actions have not been apparent. When failure of any BMP or NC-FPG has occurred it has been corrected immediately.* (Section 3.1.2.2, Chapter 3).

In considering herbicide use, the EA disclosed: *There would be no effects to coldwater streams community because the amount of herbicides in activity area waters would be immeasurable. In accordance with the Vegetation Management Final Environmental Impact Statement (VM-FEIS), herbicide spraying would not occur within 30 horizontal feet of water unless the herbicide has been approved for aquatic applications. The herbicide Triclopyr (ester formulation) has the potential to cause direct mortality to aquatic organisms at a concentration of 0.74 parts per million (ppm). The amine formulation of Triclopyr can be lethal at concentrations of 91 ppm (VM-FEIS). Concentrations of Glyphosate at 24 ppm can be lethal to some aquatic organisms (VM-FEIS). Sublethal effects, such as lethargy or hypersensitivity, have been observed in fish at concentrations of*

0.1 mg/L – 0.43 mg/L. No adverse effects have been observed in fish or aquatic invertebrates from exposure to Imazapic concentrations up to 100 mg/L. Field applications of herbicides where stream buffers have been maintained have resulted in concentrations of these herbicides in streams below the lethal concentration – generally concentrations ≤ 0.0072 ppm in the adjacent streams (Durkin, 2003a; Durkin, 2003b; and Durkin and Follansbee, 2004). Furthermore, these herbicides degrade into nontoxic compounds in approximately 65 days (VM-FEIS). The 30 foot buffers would prevent the Estimated Environmental Concentrations of Glyphosate or Triclopyr from reaching the LC₅₀ (Lethal Concentration at which 50% of the organisms suffer mortality) for any aquatic species (VM-FEIS) because the herbicides would not enter the streams in any measurable quantity. Concentrations of these herbicides in adjacent waters where the waters were buffered (33 feet) resulted in concentrations of ≤ 0.0072 ppm. These concentrations are too low to produce the lethal or sub lethal effects described above. Treatment area streams would be protected by a 30 foot buffer (minimum) which would prevent the concentrations of these herbicides from accumulating within the treatment area streams in measurable quantities. (Section 3.1.2.3, Chapter 3).

C): The USFWS has been mailed the scoping letter and EA and has provided comments on both (see USFWS below). The disclosure in the biological evaluation (Appendix A) that: *Formal consultation with the US Fish and Wildlife Service is not required* meets required disclosures under the Endangered Species Act (PL 93-205). This conclusion is well supported in the biological evaluation's effects analyses and resource reports in the project record.

Preference for Alt B – Proposed Action

Comments Received

A): *I support the current plan for the Harmon Den project, currently Alternative B in the EA. The current plan provides much needed wildlife habitat in the Pisgah National Forest.*

B): *Alternative B, which was the Forest Service's original preferred alternative, is the option I favor because it provides the best wildlife habitat and keeps the access point open. The age structure of forests on National Forests in Western NC is way too old. The Forest Service needs to begin interspersing different aged stands across the Forest to improve habitats for wildlife such as deer and grouse.*

Agency Responses

A): Preference for Alternative B is noted.

B): Alternative B was developed in part to meet this concern.

Preference for Alt C – Preferred Action

Comments Received

A): *I support the Preferred Alternative (C) primarily because it retains the Rube Rock Trail (TR 314) and the Groundhog Creek Trail (TR 315) between Interstate 40 and Skiffley Creek Road (FSR 357). As an avid hiker, I appreciate the continued opportunity to enjoy the loop hike that these two trails and the Appalachian Trail provide.*

B): *I favor the preferred Alternative (C) because it reduces the area of timber harvest from 300 acres to 200 and increases the area of old growth timber stands from 50 acres to over 600 acres. There is precious little old growth forest left and we need to preserve the remnants.*

Agency Responses

A): Preference for Alternative C is noted. Alternative C maintains these portions of the two trails, but the access off I-40 would be removed due to safety concerns.

B): Preference for Alternative C is noted.

Prescribed Burning

Comments Received

A): *The Commission supports prescribed burning and recommends repeat burning where possible.*

B): *We support the proposed use of prescribed burning as a wildlife management tool. It is widely recognized by wildlife specialists the benefits of regular prescribed burning to a number of important wildlife species across the landscape. We are glad to see the recommended burning. We encourage you to consider a recurring burning plan for the area.*

Agency Responses

A): Comment is noted.

B): The prescribed burn would be implemented to both improve wildlife habitat and reduce fuels levels (see Section 1.3, Chapter 1).

Presidential Executive Order 13443

Comment Received

A): *Alternative B is also consistent with Presidential Executive Order 13443 which directs Federal Agencies to increase opportunities for hunting and fishing.*

Agency Response

A): Presidential Executive Order 13443 (Facilitation of Hunting Heritage and Wildlife Conservation) signed August 16, 2007, states: *By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows: **Section 1. Purpose.** The purpose of this order is to direct Federal agencies that have programs and activities that have a measurable effect on public land management, outdoor recreation, and wildlife management, including the Department of the Interior and the Department of Agriculture, to facilitate the expansion and enhancement of hunting opportunities and the management of game species and their habitat. **Sec. 2. Federal Activities.** Federal agencies shall, consistent with agency missions: (a) Evaluate the effect of agency actions on trends in hunting participation and, where appropriate to address declining trends, implement actions that expand and enhance hunting opportunities for the public; (b) Consider the economic and recreational values of hunting in agency actions, as appropriate; (c) Manage wildlife and wildlife habitats on public lands in a manner that expands and enhances hunting opportunities, including through the use of hunting in wildlife management planning; (d) Work collaboratively with State governments to manage and conserve game species and their habitats in a manner that respects private property rights and State management authority over wildlife resources; (e) Establish short and long term goals, in cooperation with State and tribal governments, and consistent with agency missions, to foster healthy and productive populations of game species and appropriate opportunities for the public to hunt those species; (f) Ensure that agency plans and actions consider programs and recommendations of comprehensive planning efforts such as State Wildlife Action Plans, the North American Waterfowl Management Plan, and other range-wide management plans for big game and upland game birds; (g) Seek the advice of State and tribal fish and wildlife agencies, and, as appropriate, consult with the Sporting Conservation Council and other organizations, with respect to the foregoing Federal activities. **Sec. 3. North American Wildlife Policy Conference.** The Chairman of the Council on Environmental Quality (Chairman) shall, in coordination with the appropriate Federal agencies and in consultation with the Sporting Conservation Council and in cooperation with State and tribal fish and wildlife agencies and the public, convene not later than 1 year after the date of this order, and periodically thereafter at such times as the Chairman deems appropriate, a White House Conference on North American Wildlife Policy (Conference) to facilitate the exchange of information and advice relating to the means for achieving the goals of this order. **Sec. 4. Recreational Hunting and Wildlife Resource Conservation Plan.** The Chairman shall prepare, consistent with applicable law and subject to the availability of appropriations, in coordination with the appropriate Federal agencies and in consultation with the Sporting Conservation Council, and in cooperation with State and tribal fish and wildlife agencies, not later than 1 year following the conclusion of the Conference, a comprehensive Recreational Hunting and Wildlife Conservation Plan that incorporates existing and ongoing activities and sets forth a 10-year agenda for fulfilling the actions identified in section 2 of this order. **Sec. 5. Judicial Review.** This order is not intended to, and does not, create any right, benefit, trust responsibility, or privilege, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, instrumentalities, or entities, its officers or employees, or any other person.*

Improving habitat conditions of wildlife species (including game species) is an objective of the Harmon Den proposal. The proposal would improve habitat conditions for species that prefer ESH (Alternative B provides 101 more acres of ESH habitat than Alternative C) and Alternative C would also improve habitat conditions for species that prefer older forest habitat. The prescribed burning would also improve wildlife conditions and both alternatives propose 550 acres of prescribed burning.

Recreation Access Along Interstate 40

Comments Received

A): *The Commission continues to oppose decommissioning the Groundhog Creek and Rube Rock trails, particularly if it leads to an elimination of access and parking at the trail head along I-40. Fishermen only have a few points to access the river in the gorge and the closest other access is in Tennessee. In addition to the river, the trail head also provides hunting access to areas that otherwise could only be readily reached by a long hike on Skiffley Creek Road from behind the gate near Brown Gap. Even if the trails are decommissioned, it is likely that hunters and fishermen will continue to use them unless access*

along I-40 is blocked. For this reason, the Commission again recommends that the Forest Service contact NCDOT regarding possible measures to improve safety at the pull-off.

B): I do not favor the preferred Alternative (C) because [it] calls for closing a parking area and access point near I-40 that is important to hunters and other forest users to enter the Harmon Den area.

Agency Responses

A): An alternative was developed that would have retained this access point on I-40 (Alternative 5), but it was eliminated from detailed study because: [o]f the increased risk of potential for death or serious injury of parking in an unauthorized area along I-40 and having recreationists accessing a culvert not intended for human use (Section 2.3.5, Chapter 2).

B): See Agency Response to Comment A above. In addition, as disclosed in Section 2.3.5, Chapter 2: *Alternative C would ensure hiking recreationists can continue to access Trails 314 (Rube Rock) and Trail 315 from above [on FSR 3580]. Fishing recreationists would be impacted from accessing the Pigeon River in this area, but other access points to the river are available. The State Highway Patrol and Department of Transportation have both expressed concern about this access point off I-40.*

Roads (adding & decommissioning)

Comments Received

A): *In our pre-scoping comments we identified reducing road density and sedimentation as important to ecological restoration in Harmon Den. While efforts to reduce sedimentation will be made during this project, road density will significantly increase and with it sedimentation and the expense of maintaining those roads in the future. [T]he effects of increasing the density of the road system in the Harmon Den AA in regards to maintenance costs, sedimentation and increased establishment and dispersal of non-native invasive plants (NNIPs) is unacceptable.*

B): *Further, there appears to be no real identification of the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands [36 CFR 212.5]. We also feel that opportunities for road decommissioning are being missed. The one road proposed for decommissioning, FSR 3522, no longer exists in any functional form, and while we support its decommissioning, we believe there are other roads deserving of decommissioning, including several of those proposed to add to the system. Of all the roads in the project area, the last 1.5 miles of FSR 3580 is the most objectionable. FSR 3580 travels through a designated old-growth patch, through Management Area 5, and dead-ends near Management Area 14, none of which allow logging or road building. Furthermore, during the Preacher Timber Sale (1998) this road was used to facilitate at least two instances of illegal logging in Management Area 5 as part of that sale. While the statute of limitations for taking remedial action on the Preacher Timber Sale has likely expired, we believe we are on solid moral ground in asking for the section of FSR 3580 through Management Area 5 and Large Old-Growth Patch 17 to be decommissioned or converted to a trail. We urge that the mileage of roads added to the system in this project be decreased and that further opportunities be sought for decommissioning roads in the Analysis Area.*

C): *[i]t is not clear why the decommissioning of Forest Service Road 3552 is included in Alternative B but not in Alternative C.*

D): *We have no problems with the construction and reconstruction of the roads necessary to carry out the proposed actions. They are assets for all management activities and provide access for many recreation activities, forest health manipulations, wildlife habitat work, etc.*

E): *For the same reason detailed above we oppose the addition of approximately 4 miles of non-system roads to the system. The impacts of these roads are inadequately evaluated, and there is no effort to balance road problems and risks with benefits. Many of these problems and risks are obvious and extremely relevant in the Harmon Den analysis area, and there is already much more road mileage on Pisgah National Forest than can be maintained under any realistic budget.*

Agency Responses

A): At first glance the map titled *Harmon Den Proposed Road Management* would appear to show eight new roads being constructed and three roads being decommissioned. The eight roads are currently constructed roads—they are just not on the current Forest Transportation System. These roads access existing timber stands and are necessary for long-term management of the stands. The three roads proposed for decommissioning are not needed for long-term management. As disclosed in Section 2.4.2, Chapter 2: *Areas would be identified to monitor control/manage efforts as part of our efforts to meet national objectives of reducing impacts from non-native invasive species and improving the effectiveness of treating selected invasive species on the Nation's forests and grasslands. Survey areas would be identified before treatment, checked during treatment, and after treatment. Based on the monitoring results, follow-up treatments may be needed to meet objectives. Monitoring would enable managers to determine if non-native invasives are increasing in the AA, including these roads, with follow-up treatments as needed. These roads are currently not receiving periodic road maintenance and Road I is currently impacting*

aquatic resources where it crosses an un-named tributary stream. Placing these roads on the Forest Transportation System will enable managers to ensure they receive periodic maintenance commensurate with their Road Management Objectives.

B): The minimum level of roads needed for long-term management is displayed in the map titled *Harmon Den Proposed Road Management* and the Project-level Roads Analysis Process (Appendix G). Forest Service Road 3580 is needed near its terminus to enable prescribed burning, timber harvesting in MA 4D where the road terminates in, as well as access for wildfire suppression and other emergencies. This portion of the District is very isolated with limited access points and FSR 3580 is needed. In addition, the Forest Plan does not preclude roads within MAs 5 and 14, nor old growth (Forest Plan, pages III-28, 92, 163, and 164) and FSR 3580 does not enter MA 14.

C): It was not decommissioned in Alternative B because the Agency wanted to analyze an alternative in detail that retains access along I-40.

D): Comment is noted. Properly designed and maintained roads provide access for recreationists, timber management, wildfire suppression, habitat diversity, and administrative access.

E): See Agency Response to Comments A and B above.

Roads Analysis Process (RAP)

Comments Received

A): *Our first concern deals with the issue of roads and the RAP contained in the EA. Forest Service Regulations require that a roads analysis be performed and that it comprehensively address roads issues as part of forest management and planning: “(b) Road system -- (1) Identification of road system. For each national forest, national grassland, experimental forest, and any other units of the National Forest System (§ 212.1), the responsible official must identify the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands. In determining the minimum road system, the responsible official must incorporate a science-based roads analysis at the appropriate scale and, to the degree practicable, involve a broad spectrum of interested and affected citizens, other state and federal agencies, and tribal governments. The minimum system is the road system determined to be needed to meet resource and other management objectives adopted in the relevant land and resource management plan (36 CFR part 219), to meet applicable statutory and regulatory requirements, to reflect long-term funding expectations, to ensure that the identified system minimizes adverse environmental impacts associated with road construction, reconstruction, decommissioning, and maintenance. (2) Identification of unneeded roads. Responsible officials must review the road system on each National Forest and Grassland and identify the roads on lands under Forest Service jurisdiction that are no longer needed to meet forest resource management objectives and that, therefore, should be decommissioned or considered for other uses, such as for trails. Decommissioning roads involves restoring roads to a more natural state. . . . Forest officials should give priority to decommissioning those unneeded roads that pose the greatest risk to public safety or to environmental degradation.”¹*

B): *A Forest-wide RAP was completed in 2003 to partially address this requirement, but the 2003 analysis looked only at “the 806 miles classified as the open road system.”² The 2003 Forest-wide RAP noted that: “impacts are occurring on the 2000+ miles of closed roads and on the estimated 700+ miles of unclassified roads. All unclassified roads will be identified using GPS technology and added to the Transportation Atlas in the next few years. Watershed scale analysis will look at both the closed and unclassified roads. Priorities for watershed scale analysis should consider those watersheds that are the most vulnerable and can benefit the most from road investments.”³ Much of the Harmon Den project activities take place on the parts of the road system that were not analyzed in 2003. You have prepared a RAP in the EA, but we feel there are both missed opportunities and not enough analysis to comply with your own regulations. We take the time to set out the relevant regulations above and below to contrast the Harmon Den RAP with the standards contemplated by FSM 7712.*

Elements of a Project-Level Roads Analysis:

In addition to the requirements of 36 C.F.R. § 212.5, discussed above, the Forest Service Manual provides additional direction that transportation planning “[e]nsure that road construction, reconstruction, and maintenance standards or criteria are guided by roads analysis (FSM 7712.1) and documented through the use of road management objectives (FSM 7712.5).”⁴ As you correctly note on page 96 of the EA, a RAP must contain, at a minimum: a. Identification of needed and unneeded roads. b. Identification of road-associated environmental and public safety risks. c. Identification of site-specific priorities and opportunities for road improvements, decommissioning, and conversion to other uses. d. Identification of areas of special

¹ 36 CFR § 212.5 (emphasis added)

² Pisgah and Nantahala Roads Analysis Process Report, p. 86 (Jan. 2003) (emphasis added).

³ Pisgah and Nantahala Roads Analysis Process Report, p. 86 (Jan. 2003) (emphasis added).

⁴ FSM 7710.3 (emphasis added).

sensitivity, unique resource value that may require specific road management. e. Provide other specific information that may be needed to support the Harmon Den Project.⁵ The Roads Analysis for the Harmon Den project should also conform to the FS document entitled “Roads Analysis” Misc. Report FS-643:⁶ “Roads analysis comprises six steps aimed at producing needed information and maps. Line-officer participation is essential to the process. Although the analysis consists of six sequential steps, the process may require feedback and iteration among steps over time as the analysis matures. The amount of time and effort spent on each step will differ, based on specific situations and available information. The process provides a set of possible road-related issues and analysis questions, the answers to which can inform the choices made about future road systems. Line officers and interdisciplinary teams can determine the relevance of each question, incorporating public participation as deemed necessary by line officers. Step 1 — Setting up the analysis. The analysis must be designed to produce an overview of the road system. Line officers will establish appropriate interdisciplinary teams and identify the proper analytic scales. The interdisciplinary team will develop a process plan for conducting the analysis. The output from this step will include assignment of interdisciplinary team members, a list of information needs, and a plan for the analysis. Step 2 — Describing the situation. The interdisciplinary team will describe the existing road system in relation to current forest plan direction. Products from this step include a map of the existing road system, descriptions of access needs, and information about physical, biological, social, cultural, economic, and political conditions associated with the road system. Step 3 — Identifying issues. The interdisciplinary team, in conjunction with line officers and the public, will identify important road-related issues and the information needed to address these concerns. The interdisciplinary team will also determine data needs associated with analyzing the road system in the context of the important issues, for both existing and future roads. The output from this step includes a summary of key road-related issues, a list of screening questions to evaluate them, a description of status of relevant available data, and what additional data will be needed to conduct the analysis. Step 4 — Assessing benefits, problems, and risks. After identifying the important issues and associated analytical questions, the interdisciplinary team will systematically examine the major uses and effects of the road system including the environmental, social, and economic effects of the existing road system, and the values and sensitivities associated with unroaded areas. The output from this step is a synthesis of the benefits, problems, and risks of the current road system and the risks and benefits of building roads into unroaded areas. Step 5 — Describing opportunities and setting priorities. The interdisciplinary team and line officers will identify management opportunities, establish priorities, and formulate technical recommendations that respond to the issues and effects. The output from this step includes a map and descriptive ranking of management options and technical recommendations. Step 6 — Reporting. The interdisciplinary team will produce a report and maps that portray management opportunities and supporting information important for making decisions about the future characteristics of the road system. This information sets the context for developing proposed actions to improve the road system and for future amendments and revisions of forest plans.⁷”

C): “Roads analysis includes opportunities for public participation and emphasizes interdisciplinary team identification and evaluation of road issues and opportunities.”⁸ The Forest Service must include the public and provide them opportunity to participate in this process. Further, the Forest Service must use its own experience and resources in order to satisfy their own regulations regarding road issues. “1. New Road Construction. Consistent with the direction in FSM 7703.1, ensure that the addition of new roads serves a documented need and that the decision is informed by a roads analysis (FSM 7712.1). 2. Maintenance, Reconstruction, and Decommissioning. Use roads analysis (FSM 7712.1) to evaluate opportunities and priorities for road reconstruction, decommissioning, or conversion to other uses and to provide the context at a scale and intensity commensurate with the scope of the road management issue or concern. Implementation of road maintenance activities does not require a roads analysis before proceeding; however, roads analysis is a useful management tool to help set maintenance priorities.⁹”

D): Few, if any, of the above-referenced steps have been taken, at least in a form available to the public. There was no real discussion or evaluation of the roads in the project area, just a few boilerplate remarks assuring the public that no further damage is likely to result from the 3.5 new miles of system road because of the maintenance requirement of the respective RMO. There appears to be no analysis of the need for the addition of these roads to the system, simply their addition is noted. This, of course, neglects to address the fact that the Forest Service’s existing maintenance backlog for roads is unmanageable and only getting worse. In fact, in a recent Pinchot Institute study analyzing Forest Service management and potential

⁵ Harmon Den EA; see also FSM 7712.13c (4).

⁶ “Units are to use an authorized science-based roads analysis process, such as that described in the report Roads Analysis: Informing Decisions About Managing the National Forest Transportation System (USDA Forest Service, 1999, Misc. Report FS-643).” FSM 7712.1. Other analysis methods which have been approved by the Deputy Chief of the Forest Service could be used, but the Stecoah analysis team chose this one. See EA, p. 106.

⁷ FS-643, p. iv-v (emphasis added).

⁸ FSM 7712.12.

⁹ FSM 7712.12b.

compatibility with the Forest Stewardship Council's (FSC) certification criteria, deficient road maintenance and upkeep was cited as one of the major problem areas.¹⁰

Agency Responses

A): The road system disclosed in the map titled *Harmon Den Proposed Road Management* and listed in Appendix G are those needed for long-term management of natural resource, public access, and administrative use.

B): Step 1 – Setting up the analysis. The Harmon Den project-level RAP was completed by an interdisciplinary team (Section 4.1, Chapter 4); was completed at a project (watershed) level as opposed to a Forest level; and addressed five objectives: (1) Identification of needed and un-needed roads; (2) Identification of road associated environmental and public safety risks; (3) Identification of site-specific priorities and opportunities for road improvements and decommissioning; (4) Identification of areas of special sensitivity or unique resource value that may require specific road management; and (5) Provide other specific information that may be needed to support the Harmon Den Project. Step 2 – Describing the situation. The Harmon Den project-level RAP disclosed Forest Plan management area road-related objectives; and environmental and public safety risks. Step 3 – Identifying issues. Important issues such as which roads to retain or decommission, environmental risks, and unique resource values in the area was disclosed in the Harmon Den project-level RAP. Step 4 – Assessing benefits, problems, and risks. The Harmon Den project-level RAP identified benefits of roads by management area; identified problems with decommissioning some; and environmental risks occurring on some roads. Step 5 – Describing opportunities and setting priorities. The Harmon Den project-level RAP disclosed opportunities for adding non-system roads to the Forest Transportation System and opportunities for decommissioning system and non-system roads. Step 6 – Reporting. A report and a map was completed for the Harmon Den project-level RAP.

C): The Harmon Den project-level RAP was developed following public scoping on the proposal mailed in February 2008 and a public open house meeting in March 2008. The RAP was made public for comments in October 2008 as part of the Harmon Den Project EA. See also Agency Response to Comment B above.

D): The Agency disagrees that no real analysis on the roads in the AA took place (see Agency Response to Comment B above). The newly added roads would have RMOs assigned with the lowest maintenance costs possible that meet long-term road needs.

Rube Rock & Groundhog Creek Trails

Comments Received

A): *Assuming that you are able to work out a maintenance agreement with the Carolina Mountain Club (or other appropriate party) for the Rube Rock Trail and Groundhog Creek Trail, ATC would like to see these trails remain open for use as potential loop hikes with the A.T. On a trip along I-40, yesterday, I noted that the NCDOT has built a guard rail that cuts off parking at what used to be a trailhead for the Groundhog Creek Trail.*

B): *I support the Preferred Alternative (C) primarily because it retains the Rube Rock Trail (TR 314) and the Groundhog Creek Trail (TR 315) between Interstate 40 and Skiffley Creek Road (FSR 357). As an avid hiker, I appreciate the continued opportunity to enjoy the loop hike that these two trails and the Appalachian Trail provide.*

C): *In particular, we support retention of the Rube Rock Trail (TR314) and the Groundhog Creek Trail (TR315) between Interstate 40 and Skiffley Creek Road (FSR 357). We appreciate your proposal to retain the trails and will work with the Appalachian Ranger District to maintain these sections of the trails.*

D): *We support the provisions in Alternative C to keep Rube Rock Trail (TR 314) and Groundhog Creek Trail (TR 315) open for trail use and access to the Appalachian Trail. The Rube Rock and the Groundhog Creek Trails provide unique and important access to the AT. The Rube Rock and the Groundhog Creek Trails provide the option for creating loop hikes through the Harmon Den area utilizing the Appalachian Trail. Decommissioning these trails would remove this opportunity. These trails also provide a scenic and enjoyable natural setting for hikers through the Harmon Den area in their own right. These trails pass through mature forest and areas rich in wildflowers under impressive forest and trees, providing a natural setting that is not offered by any other route. These trails also travel near streams for much of the hike affording a pleasant setting for recreation and fishing. Keeping the trails open is the only alternative (between alt B and C) that fulfills the recreation direction for Management Areas these trails pass through. The trails also provide access to hemlock being treated for hemlock wooly adelgid under the Forest's hemlock wooly adelgid program. The trails are a needed resource for continued treatment and monitoring of the hemlock. We support the proposal to keep these trails open while closing the access from I-40 (FSR 3522).*

¹⁰ See *National Forest Certification Study: An Evaluation of the Applicability of Forest Stewardship Council (FSC) and Sustainable Forestry Initiative (SFI) Standards on Five National Forests*, Summary of Results, pp. 3-4. (Pinchot Institute 2005 and Summary 2008).

Agency Responses

A): The trailhead and access off I-40 would be removed under Alternative C due to safety concerns (Sections 2.2.3 and 2.3.5, Chapter 2).

B): Preference for Alternative C is noted.

C): Comment is noted.

D): Comment is noted.

Scenery (see also Appalachian Trail Mitigation theme above)

Comments Received

A): *[w]e note that unit 461-2 appears, from your maps, to straddle the Rube Rock Trail. We didn't get this far south on the Rube Rock Trail when we hiked the area with Landscape Architect Erik Crews and Morgan on April 7. We request that the trail tread be protected and a 100 yard buffer be maintained on either side of the trail.*

B): *It appears that no provision is proposed to mitigate the effects of the 2-age harvest of stand 461-2 on the Rube Rock Trail. Alt C states: "461-2: do not skid along Rube Rock Trail; cross in one location." Although the map shows stand 461-2 in two sections around the Rube Rock Trail, this apparently does not represent a buffer. Both Alt B, in which the Rube Rock Trail is proposed for decommissioning, and Alt C, in which the Rube Rock Trail is retained, both have a regeneration cut of 31 acres proposed. The EA addresses compliance with VQOs in general, but the direct and scenery impact to the Rube Rock Trail from these actions is not addressed. We would prefer that Stand 461-2 be dropped, but at the least mitigation measures including a trail buffer should be utilized.*

Agency Responses

A): The portion of Rube Rock Trail passing through Unit 461-2 is in MA3B. The Forest Plan Visual Quality Objective for this MA is Modification; where management activities may visually dominate the view, but created openings along a trail may not exceed 500 linear feet. The adjacent stream will have a 100 foot no harvest buffer on each side. Since the trail generally follows the stream this would provide a visual buffer as well. To minimize impacts to the trail from logging operations, log skidders would cross the trail in one location and the crossing would be rehabilitated after harvest. The proposed treatment in this stand is a 15-20 ft² basal area/acre two-age harvest. The residual trees in a two-age harvest in combination with the 100 foot stream buffer and single crossing point would allow this treatment to meet the assigned Visual Quality Objective.

B): See Agency Response to Comment A above.

Wildlife Habitat & Populations

Comments Received

A): *Please include me as one who supports Alternative B for management of the Pisgah National Forest in the Harmon Den area. The plan benefits wildlife much more than Alternative C which will not open up enough understory for birds and deer.*

B): *We support dropping the development of cerulean warbler habitat near the Appalachian Trail and dropping stand 461-30.*

C): *I am an avid wingshooter and waterfowler born and raised in western NC. I have shared a special love for the grouse and woodcock that live in the forests around the area, and have watched them decline regretfully for all the years that I've been conscious to keep track of it. I have seen land be developed until the grouse habitat around the area is sadly confined to the national parks and very few other government owned areas for the most part. I noticed this decline in bird numbers when I was still a teenager haunting the woods around my parents home, and wondered about it. After completing a BS in Wildlife Biology from at Clemson University I learned that the changes in habitat are the major reason for decline in any species, be it avian or mammal, reptile or fish etc. I learned that grouse and woodcock are a relatively early succession woodland species that do not do well in areas that have old growth, in fact hardly any of the species we enjoy seeing and having around are not benefited by the old growth forests, however beautiful the trees may be. I took an internship in the Great Smoky Mountains National Park during my junior year of college and found there to be more grouse than I'd ever imagined could be in North Carolina. My job was contained in the Cataloochee area, where some of the old homesteads were grown up, but still in early stages of succession. The grouse numbers were not so high at all in the areas that were grown up in more mature forest in other areas of the park however, and neither were any of the other species attractive to the public (which is ultimately the reason for the parks being open, to preserve the areas for the public to see wildlife and plant species).*

D): *However, it is not clear why [t]he development of cerulean warbler habitat under Alternative B is not included in Alternative C.*

Agency Responses

A): Preference for Alternative B is noted. Alternative B proposes 101 more acres of regeneration harvesting than Alternative C.

B): Alternative C does not propose to develop specific habitat for cerulean warblers, but some of the ESH may serve as suitable habitat for warblers.

C): Wildlife species that prefer ESH will benefit from the action alternatives in the proposal since there is currently no ESH in the Harmon Den AA. An objective of the proposal is to develop a variety of habitat that meets habitat requirements of a large variety of both game and non-game wildlife.

D): Alternative B proposed to: *Develop several ½ acre to 2 acre group selection openings in Stand 451-8 to enhance cerulean warbler habitat. Basal area would be thinned down to 50 ft² per acre in the rest of the stand* (Section 1.2, Chapter 1). Following issuance of the scoping document describing the proposed action in February 2008, comments were received from members of the public that the cerulean warbler habitat development was not warranted due to limited research on this species' habitat needs. There was also questions raised about cerulean warbler populations and if there are even birds in the AA. To address these comments, Alternative C did not propose the ½ acre to 2 acre group selection openings in Stand 451-8.