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Peaked Hill Vegetation Management Project

USDA Forest Service
White Mountain National Forest
Androscoggin Ranger District
Coos County, New Hampshire

Decision Notice and Finding of No Significant Impact for the Environmental Assessment

Appendix G - Forest Service Response to 30-Day Comments

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**Peaked Hill Vegetation Management Project
Androscoggin Ranger District
White Mountain National Forest**

DECISION NOTICE and FINDING OF NO SIGNIFICANT IMPACT

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Appendix G

Comments on the Peaked Hill Environmental Assessment and Forest Service
Response.....G-1

Decision Notice and Finding of No Significant Impact Peaked Hill Vegetation Management Project

1.0 Background

The Peaked Hill Vegetation Management Analysis Area is located within the Town of Gilead, Oxford County, Maine on the Androscoggin Ranger District of the White Mountain National Forest. The Analysis Area encompasses Compartment 303 (within HMU 302), and is approximately 628 acres. All of the project activities are located in Management Areas (MAs) 2.1 and 3.1 lands.

2.0 Purpose and Need

2.1 Purpose of the Action

The Purpose of this project is to accomplish resource objectives to meet the overall management direction of the White Mountain National Forest, as established in the Forest Plan (USDA Forest Service 1986a) and the Draft Forest Plan (USDA Forest Service 2004a). The Peaked Hill Vegetation Management project will address site-specific needs and opportunities to move the area from the existing condition (EC) toward the desired future condition (DFC).

The project will also meet the goals of MAs 2.1 and 3.1 under the current Forest Plan and the goals of MA 2.1 under the 2004 Draft Forest Plan which are to manage for a balance of habitats for the full range of wildlife species and to provide a supply of high quality hardwood sawtimber and other timber products on a sustainable yield basis. Harvesting mature and overmature trees provides high quality sawtimber to area mills while at the same time, lower quality or damaged trees can be harvested to improve future stand quality and productivity.

2.2 Need for Change

The Need for Change is determined by comparing Desired Future Conditions in the Forest Plan with the existing conditions in the Analysis Area. The Forest Plan provides desired conditions for lands within MAs 2.1 and 3.1 of the HMU.

Table 1A. Need For Change, by Acres of Community Type in MAs 2.1 and 3.1 for HMU 302

Community Type	Existing Condition	Desired Future Condition	Need
Hardwoods/mixedwoods (regeneration age)	25	107	82
Paper Birch (regeneration)	0	32	32
Aspen (regeneration)	0	22	22

Community Type	Existing Condition	Desired Future Condition	Need
Oak/Pine (regeneration)	265	50	0
Spruce/Fir (all age classes)	77	509	432
Permanent Wildlife Openings (PWOs)	33	63	30

Table 1A shows that in order to meet the community type and age class objectives of the Forest Plan for HMU 302, there is a need to establish regenerating stands of paper birch, aspen and northern hardwoods. Commercial timber harvest can be used to achieve these objectives. Even-aged harvest methods can be used to convert mature and overmature northern hardwoods, aspen and paper birch stands to a younger, regenerating age class. Uneven-aged harvest methods can be used to; (1) increase the spruce/fir component within mixedwood stands by removing small groups of overstory trees, and (2) improve stand conditions by removing damaged and poor quality trees in overstocked stands.

Though there is not a need to increase the oak/pine communities, there is a need to maintain and perpetuate oak/pine into the future. This can be accomplished using both even-aged treatments such as shelterwood cuts and uneven-aged treatments such as group selection (1/4 to 1/2 acre patches). Both these methods reduce stand density to allow sufficient light to reach the forest floor. In addition to harvesting, reduction of competing hardwood understory and preparation of a suitable seedbed are necessary for pine and oak to become well established beneath the canopy.

3.0 Decision to be Made

3.1 Decision Points

The Decision Notice documents activities to be implemented to meet the project's Purpose and Need. The decision points considered in my selection of an alternative were:

1. Which of the alternatives would best move the Peaked Hill Analysis Area toward the DFC outlined in the Forest Plan and best meet the Purpose and Need for action?
2. Which of the alternatives best addresses relevant issues raised by the public and the interdisciplinary team?
3. Would the proposed action and its alternatives pose any significant environmental impact to warrant the need for an environmental impact statement?
4. Do the mitigation measures for the proposed action and its alternatives meet the Forest Plan Standards and Guidelines?

3.2 Decision

I have decided to implement Alternative 3, the Modified Proposed Action (see map on page 15). I base my decision on the Environmental Assessment (EA), direction provided by the Forest Plan (and the associated Final Environmental Impact Statement), the Finding of No Significant Impact (FONSI), and input provided through the public involvement process. I believe this alternative is responsive to the issues raised during the public scoping process, meets the Purpose and Need for Change with a balanced approach to resolving these issues, and accomplishes resource management objectives for HMU 302. I have read the comments submitted during the

30-day Comment Period, and I appreciate the quality of public input to this project. I considered this input carefully in making this decision. My rationale for selecting Alternative 3 is detailed in Sections 3.3 and 3.4 of this document.

Alternative 3 will contribute toward achieving desired wildlife habitat conditions within Habitat Management Unit (HMU) 302, and provide high quality hardwood sawtimber and other timber products on a sustained yield basis. The project will establish 21 acres of early-successional habitat and increase an existing permanent wildlife opening by 3 acres while harvesting approximately 1.0 million board feet of timber utilizing both uneven-aged and even-aged management techniques on approximately 223 acres of National Forest land. Connected actions to the timber harvest include re-establishment of 4 log landings, restoration of approximately .7 miles of existing road, maintenance of the permanent wildlife opening and removal of a culvert that is impeding fish passage.

Table 2: Proposed Activities for Alternative 3

Activity	Amount
Timber Harvesting (acres)	
Even-aged Management	24
• Regeneration Cut	21
• Permanent Wildlife Opening	3
Uneven-aged Management	
• Individual Tree and Group Selection (ITS&GS)	120
• Group Selection Cut	15
• Commercial Thinning	20
• Commercial Improvement	27
• Shelterwood Prep Cut	17
Road Improvement (miles)	.7
Site Preparation (Acres)	
• Mechanical Treatment	37
• Prescribed Burning	61
Culvert Removal (FR 741)	

3.3 Reasons for Decision

I have selected Alternative 3 because it provides the most balanced approach to managing the resources available in HMU 302. I could have selected the No Action Alternative, but I believe the opportunities to address the Purpose and Need for Change in HMU 302 outweigh the benefits of refraining from actively managing the vegetation and infrastructure on these lands. My reasons for selecting Alternative 3 are:

- It partially addresses our shortage of early successional wildlife habitat and permanent wildlife openings as desired in the Forest Plan;
- It follows the 1986 Forest Plan and the 2004 Draft Forest Plan’s direction for lands within Management Areas 2.1 and 3.1 by providing large volumes of high quality

hardwood sawtimber on a sustained yield basis and other timber products through intensive timber management practices and increases wildlife habitat diversity for the full range of wildlife species with emphasis on early-successional species and;

- It minimizes impacts to wood turtles (Regional Forester Sensitive Species) that may occur along Bog Brook.

3.4 Other Alternatives Considered but not Selected

In addition to the selected alternative, I also considered two additional alternatives for this project. For a detailed comparison of these alternatives see Comparison of Alternatives (Section 2.1) in the Environmental Assessment.

Alternative 1: No Action

Under the No Action alternative, current management plans would continue to guide management of the Analysis Area, and no timber harvest or connected actions would take place in the Project Area at this time.

I did not select this alternative because it does not meet the Purpose and Need for Change, nor does it achieve Forest Plan goals and objectives for MAs 2.1 and 3.1 lands in HMU 302. Stand conditions would remain unchanged, except as determined by natural disturbance, and no new early-successional habitat would be generated through timber harvest. No sawtimber or other timber products would be generated by timber harvest in the Project Area at this time. Also, an existing culvert would not be removed nor the streambank restored to its natural condition.

Alternative 2: Proposed Action

This alternative is very similar to Alternative 3 with the exception that the operating season for stands within 1/4 mile of Bog Brook (stands 2, 4, 6, 13, and 32) would be harvested during the summer and fall. The rationale was to scarify the ground to improve growing conditions for oak and pine establishment. Also under this alternative, the entrance of Forest Road (FR) 741 would be re-aligned to meet Maine Department of Transportations sight-distance guidelines on Route 2.

I did not select this alternative because it would not sufficiently protect wood turtles that may be in the analysis area during the spring, summer and fall.

4.0 Public Involvement

A scoping letter soliciting comments on the Peaked Hill Vegetation Management proposal was sent to 230 interested people, adjacent property owners, local newspapers and various agencies and organizations on February 7, 2005. The project was also listed in the Quarterly Schedule of Proposed Actions for the White Mountain National Forest. The scoping letter was also posted on the White Mountain National Forest web page (www.fs.fed.us/r9/white).

The 30-day Comment Period for the Peaked Hill Environmental Assessment was initiated with a legal announcement in the Lewiston Sun Journal on September 13, 2005. The EA was mailed to

seven individuals who had requested it, and notice of the availability of the EA was sent to another nine individuals. In addition, the EA was posted on the White Mountain National Forest web page (www.fs.fed.us/r9/white). During this period we received four responses. I have considered these comments in making my decision, and have included my response to all comments in Appendix G of this document.

4.1 Issues Used to Formulate Alternatives

The issues considered during the analysis were raised by the public, Forest Service employees, and the interdisciplinary (ID) team during the scoping process. The main issue of concern used to develop Alternative 3 was:

Issue 1: Minimize impacts to wood turtles that may be within 1/4 mile of Bog Brook during the spring, summer and fall months (Interdisciplinary Team):

5.0 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:

Both Beneficial and Adverse Impacts have been Considered

Both beneficial and adverse impacts of implementing Alternative 3 have been considered in the EA (Chapter 3). My finding of no significant environmental effects is not biased by the beneficial effects of the action. Though the effects from Alternative 3 may be both beneficial and adverse to certain resources, the EA demonstrated that these effects are relatively minor and the impacts generated are not directly, indirectly or cumulatively significant.

Effects on Public Health and Safety

There will be no significant effects to public health and safety because mitigation measures are in place to minimize conflicts between proposed activities and recreational users in the area. (EA, Appendix D, Recreation). To ensure vehicle safety to motorists traveling on Route 2 through the project area, a flagger would be required if sight distance is not met for logging traffic exiting from FR 741 onto Route 2.

Unique Physical and Biological Characteristics

There will be no significant effects to unique characteristics, such as prime farmland within the project area since it has been forested for well over 70 years. There are no ecologically critical areas such as wetlands, wild and scenic rivers, adjacent parklands, or Wilderness areas within the proposed project area. There are no significant effects to the Roadless or Wilderness character of the Caribou-Speckled Mountain Wilderness Area, nor will any of the proposed activities affect

the availability of the Caribou-Speckled Mountain Roadless Area for consideration as potential Wilderness in the Forest Plan Revision.

Controversial

Consultation with natural resource organizations (U.S. Fish and Wildlife Service and Maine Historic Preservation Office) did not raise any highly controversial or uncommon concerns regarding the effects of the proposed action on the physical or biological environment (see EA, Chapter 3). Nor did comments received from the public invalidate the conclusions reached by the Forest Service. Based on the involvement of these organizations, the public and Forest Service resource specialists, the effects on the human environment from the proposed action are not highly controversial.

Highly Uncertain, Unique or Unknown Risks

We have considerable experience with the types of activities to be implemented. The analysis shows the effects are not uncertain, and do not involve unique or unknown risk (Chapter 3 of the EA). The effects of the alternatives, as well as the range of site characteristics are similar to those types taken into consideration and disclosed in the Final Environmental Impact Statement, Chapter IV (USDA Forest Service 1986b). Past knowledge gained through records of timber sale inspections, stand examinations, monitoring and research have provided a basis for determining the effects likely to occur in response to the proposed action.

Precedent for Future Actions

The action is not likely to establish a precedent for future actions with significant effects, since the timber harvest proposal is similar to many other harvests conducted on the White Mountain National Forest over many decades. The proposed action is consistent with the Forest Plan goals for Management Areas 2.1 and 3.1.

Cumulative Impacts related to Other Actions

The proposed action does not individually or cumulatively reach a level of significance. The Environmental Assessment (Chapter 3) describes the anticipated cumulative effects on vegetation, recreation, soils, water resources, air resources, fisheries, visuals, wildlife, threatened, endangered and sensitive species, heritage resources, roadless areas and socio-economic. I am satisfied after reviewing the Environmental Assessment that none of the cumulative effects of the alternatives are significant. Where appropriate, mitigation measures are proposed to minimize any potential adverse effects.

Effects to Significant Scientific, Cultural or Historical Resources

A cultural resource report (CRRR #05-2-1) was completed for the Project Area. Based on field surveys and a review of historic maps and literature there is no anticipated loss of significant historic or cultural resources. The Maine State Historic Preservation Office (SHPO) concurred with the findings of our archeological survey and is in accordance with our proposed actions

(March 2005). Mitigation measures (EA, Appendix D, Heritage Resources) will be employed to eliminate or lessen any impacts to undiscovered artifacts caused by the proposed activities.

Threatened and Endangered Species and Their Habitats per the Endangered Species Act.

The action will not adversely affect any threatened or endangered species or habitat that has been determined to be critical under the Endangered Species Act of 1973.

A landscape analysis and subsequent field reviews conducted by a private contractor in 2004 found no records of state listed plants in the Analysis Area.

The U.S. Fish and Wildlife Service concurred with the determination that the proposed project will not have adverse effects to Indiana bats or Canada lynx. They also agreed that the proposed project will comply with measures and terms of the Incident Take Statement (Biological Opinion) for Indiana Bat and with conservation measures within the Canada lynx Conservation Assessment and Strategy.

The design of Alternative 3 complies with the April 2001 Forest Plan Amendment for Threatened, Endangered and Sensitive Species.

The Threat or Violation of Federal, State or Local Laws or Regulations that Protect the Environment.

The action will not violate Federal, State and local laws or requirements for the protection of the environment. Applicable laws were incorporated into the Forest Plan Standards and Guidelines (Forest Plan pages III-5-29, III-31-35, III-37-41), and the Proposed Action complies with the Forest Plan. In addition, some project mitigation measures have incorporated more recent “best management practices” utilized by state agencies.

6.0 Findings Required by Other Laws and Regulations

The decision to implement Alternative 3 is consistent with the intent of the Forest Plan's long term goals and objectives. The project was designed in conformance with Forest Plan Standards and incorporates appropriate Forest Plan Guidelines. Other applicable regulatory requirements and laws are listed below:

NFMA (National Forest Management Act)

This project complies with guidelines that insure vegetation management provides a sustained yield of forest products, promotes diverse plant and animal communities, and occurs in suitable locations. The proposed project area lies within Management Areas 2.1 and 3.1 which is suitable for timber harvesting practices in accordance with the National Forest Management Act and its implementing regulations, 36 CFR 219.27(b)(1) and was confirmed by field examination.

The even-aged prescriptions proposed for stands 303/4, 303/8a, 303/10a and 303/14 are appropriate methods to create early-successional wildlife habitat in the northern hardwood, and aspen community types (USDA Forest Service. 1986a. Appendix M).

The even-aged prescription (shelterwood prep cut) proposed for stand 303/2 is an appropriate method to enhance and establish red and white pine regeneration in the understory (USDA Forest Service. 1986a. Appendix M).

In addition to the consistency findings pertaining to the White Mountain National Forest Land and Resource Management Plan, as amended, this act establishes specific guidelines for prescriptions involving vegetative manipulation in National Forest Management (USDA Forest Service. 1986a. Appendix M). My decision is consistent with the guidelines for management prescriptions that involve vegetative manipulation of tree cover [36 CFR 219.27(b)] as follows:

1. *The prescription should be best suited to the multiple-use goals established for the area with potential environmental, biological, cultural resource, aesthetic, engineering, and economic impacts, as stated in the regional guides and Forest Plans [36 CFR 219.27(b)(1)].* The use of an even-aged management prescription is optimal because it regenerates stands that are mature, supplies wood products predicted in the Forest Plan (USDA Forest Service. 1986a. Appendix M) and protects other resource values, and mitigates effects as needed (Peaked Hill EA: Section 3.2 - Vegetation; Appendix D – Mitigation Measures).
2. *The prescription should assure that lands can be adequately restocked except where permanent openings are created for wildlife habitat improvement, vistas, recreation uses and similar practices [36 CFR 219.27(b)(2)].* The practices prescribed for the Peaked Hill Project are the same as those that have been successful in restocking WMNF MA 2.1 and 3.1 lands during past management entries (Project Record: Stocking surveys for Twayblade Timber Sale and Forest Monitoring Reports).
3. *The prescription should not be chosen primarily because it would give the greatest dollar return or the greatest output of timber, although these factors shall be considered [36 CFR 219.27(b)(3)].* Though Alternative 3 has the highest dollar value, it was chosen not only for this reason. It also responds to the wildlife and transportation issues (Peaked Hill EA: Sections 3.12- Federal Threatened, Endangered and Proposed Regional Forester Sensitive Species and Section 3.14- Socio-economics).
4. *The prescription should be chosen after considering potential effects on residual trees and adjacent stands [36 CFR 219.27(b)(4)].* Minimal negative effects are anticipated to residual trees or adjacent stands (Peaked Hill EA: Section 3.2 - Vegetation).
5. *The prescription should avoid permanent impairment of site productivity and ensure conservation of soil and water resources [36 CFR 219.27(b)(5)].* The prescriptions include Forest Plan Standards and Guidelines, Best Management Practices, and Mitigations Measures designed to prevent the permanent impairment of site productivity and conservation of water resources (Peaked Hill EA: Sections 3.2 - Vegetation, Section 3.6 – Soils, Section 3.7- Water, and Appendix D – Mitigation Measures).

6. *The prescription should provide the desired effects on water quantity and quality, wildlife and fish habitat, regeneration of desired tree species, forage production, recreation uses, aesthetic values, and other resource yields [36 CFR 219.27(b)(6)].* The prescriptions meet Forest Plan Standards & Guidelines, which describe the Desired Future Condition (Peaked Hill EA: Chapter 3 – Affected Environment and Environmental Consequences; Appendix D – Mitigation Measures).
7. *The prescription should be practical in terms of transportation and harvesting requirements and total costs of preparation, logging, and administration [36 CFR 219.27(b)(7)].* Prescriptions use existing roads that need only restoration maintenance for use or temporary structures. Harvesting restrictions protect other resources. Costs of preparation, logging and administration are representative of average conditions in the area. (Peaked Hill EA: Section 2.0 – Alternatives; Chapter 3 – Affected Environment and Environmental Consequences; Appendix D – Mitigation Measures).

NEPA (National Environmental Policy Act)

This act requires public involvement and consideration of potential environmental effects for proposed actions and alternatives. The Environmental Assessment is used to document compliance with this act.

National Historic Preservation Act

The White Mountain National Forest consults with the Maine State Historic Preservation Office (SHPO) prior to reaching a decision on the project. We have received concurrence from SHPO on the cultural resource report and approval to implement the project with mitigations measures.

MBTA (Migratory Bird Treaty Act)

This project is consistent with the Migratory Bird Treaty Act and will not cause measurable negative effects on Neo-tropical migratory bird populations.

Endangered Species Act

The White Mountain National Forest completed a site-specific Biological Evaluation (BE) of the potential effects to Threatened, Endangered, Proposed and Sensitive Species (TES). It was determined that there are not likely to be adverse effects to these species.

7.0 Implementation Date

If no appeal is received, implementation of this decision may occur on, but not before, 5 business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition.

8.0 Administrative Review or Appeal Opportunities

This decision is subject to appeal in accordance with 36 CFR 215.7. A person has standing to file an appeal only if they submitted substantive comments during the 30-day Comment Period. A Notice of Appeal must be in writing and clearly state that it is a Notice of Appeal being filed pursuant to 36 CFR 215.7. Appeals must be filed within 45 days of the date of legal notice of this decision in the Lewiston Sun Journal, Lewiston, Maine to:

USDA Forest Service, Eastern Region
ATTN: Appeals Deciding Officer, Peaked Hill Project
626 East Wisconsin Avenue
Milwaukee, WI 53202

The office business hours for those submitting hand-delivered appeals are: 8am-4:30pm (Central Time), Monday through Friday, excluding holidays. The Notice of Appeal may also be faxed to 414-944-3963, Attn: Appeals Deciding Officer, USDA Forest Service, Eastern Regional Office; or it may be electronically mailed to www.appeals-eastern-white-mountain@fs.fed.us. Electronic appeals must be submitted in a format such as an email message, plain text (.txt), rich text format (.rtf), Word (.doc), or any software supported by Microsoft applications.

It is the responsibility of appellants to ensure that their appeal is received in a timely manner. The 45-day time period is computed using calendar days, including Saturdays, Sundays, and Federal holidays. When the time period expires on a Saturday, Sunday, or Federal holiday, the time is extended to the end of the next Federal working day. The day after the publication of the legal notice of the decision in the Lewiston Sun Journal is the first day of the appeal-filing period. The publication date of the legal notice of the decision in the newspaper of record is the exclusive means for calculating the time to file an appeal. Appellants should not rely on dates or timeframe information provided by any other source. If you do not have access to the Lewiston Sun Journal, please call the Androscoggin Ranger Station at 603-466-2713, ext. 222 (TTY 603-466-2856) for the published date. There will be no time extensions for appeals.

When there is a question about timely filing of an appeal, timeliness shall be determined by:

1. The date of the postmark, e-mail, fax, or other means of filing (for example, express delivery service) an appeal and any attachment;
2. The time and date imprint at the correct Appeal Deciding Officer's office on a hand-delivered appeal and any attachments; or
3. When an appeal is electronically mailed, the appellant should normally receive an automated electronic acknowledgment from the agency as confirmation of receipt. If the appellant does not receive an automated acknowledgment of the receipt of the appeal, it is the appellant's responsibility to ensure timely receipt by other means.

Appeals must meet the content requirements of 36 CFR 215.14. At a minimum, an appeal must include the following:

1. Appellant's name and address, with a telephone number, if available;
2. Signature or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the appeal);

3. When multiple names are listed on an appeal, identification of the lead appellant (§215.2) and verification of the identity of the lead appellant upon request;
4. The name of the project or activity for which the decision was made, the name and title of the Responsible Official, and the date of the decision;
5. The regulation under which the appeal is being filed, when there is an option to appeal under either this part or part 251, subpart C (§215.11(d));
6. Any specific change(s) in the decision that the appellant seeks and rationale for those changes;
7. Any portion(s) of the decision with which the appellant disagrees, and explanation for the disagreement;
8. Why the appellant believes the Responsible Official's decision failed to consider the substantive comments; and
9. How the appellant believes the decision specifically violates law, regulation, or policy.

The Environmental Assessment for this project is available for public review at the Androscoggin Ranger District, 300 Glen Road, Gorham, NH 03581. In addition, the EA is posted on the White Mountain National Forest web page (www.fs.fed.us/r9/white). Questions regarding the EA should be directed to Gail Wigler at 300 Glen Road, Gorham, NH 03581 (phone: 603-466-2713 ext. 230, FAX and TTY: 603-466-2856).

9.0 Responsible Official and Contacts

The Responsible Official for the Peaked Hill Vegetation Management Project is Katherine Stuart, Ranger of the Androscoggin District of the White Mountain National Forest.

For additional information concerning this decision or the Forest Service appeal process, contact: Pat Nasta at 300 Glen Road, Gorham, NH 03581, or by phone (603-466-2713 ext. 222), or by FAX and TTY (603-466-2856).

/s/ Katie Stuart

November 8, 2005

KATHERINE W. STUART
District Ranger

Date

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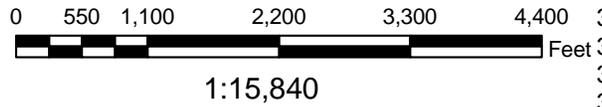
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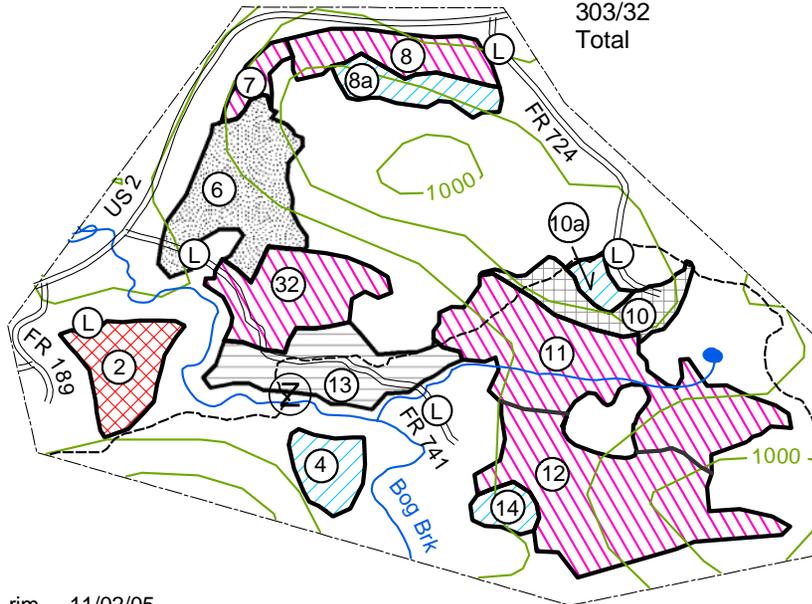
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MAP 1 - Alternative 3
 Peaked Hill Project Area
 White Mountain National Forest
 Androscoggin Ranger District
 Town of Gilead
 Oxford County, Maine



Compartment#/Stand#
303/2
303/4
303/6
303/7
303/8
303/8a
303/10
303/10a
303/11
303/12
303/13
303/14
303/32
Total

Acres	Rx
17	Shelterwood Prep
8	Clearcut
27	Commercial Improvement
4	Individual Tree & Group Selection
11	Individual Tree & Group Selection
9	Patch Clearcut
15(3)	Group Selection
3	Patch Clearcut
41	Individual Tree & Group Selection
45	Individual Tree & Group Selection
20	Commercial Thinning
4	Patch Clearcut
19	Individual Tree & Group Selection
<u>223(3)</u>	



Legend

- Project Area Boundary
- ==== Transportation System
- Snowmobile Trail
- (L) Landing
- (Z) Bridge
- Streamcourse
- Waterbody
- Contour Interval - 100'
- ▨ Clearcut or Patch Clearcut
- ▩ Shelterwood Prep
- ▧ Group Selection Cut
- ▦ its_groups_sp83
- ▤ Commercial Improvement Cut
- ▥ Commercial Thinning

rjm 11/02/05

Appendix G

Responses to Public Comments on the Peaked Hill Vegetation Management Environmental Assessment

The Peaked Hill Environmental Assessment was offered for public review and comment for 30 days from September 13 through October 12, 2005. The invitation to comment was promoted through mailings, a Legal Ad in the Lewiston Sun Journal and posting the document on the White Mountain National Forest website. Four (4) responses were received via conventional mail and e-mail.

We appreciate the time respondents spent reviewing this Environmental Assessment (EA) and thank you for your thoughtful comments.

We clarified and supplemented the analysis for several resources due to issues raised by one respondent who did not respond to the initial scoping, but did respond to the 30 day EA comment review period.

The comments are arranged by category and then by commenter and whenever possible, the respondent is quoted directly and in the context of their full comments. The categories are:

1. Support of proposed Peaked Hill Vegetation Management Project
2. Vegetation
3. Wildlife
4. Unroaded Areas
5. Soils
6. Streams
7. Mitigation Measures
8. Cumulative Effects
9. Fire
10. Other Preferred Alternatives

All correspondence is filed in the Peaked Hill Environmental Analysis Project File located at the Androscoggin Ranger Station in Gorham, NH, and is available for public inspection.

1.0 Support of Proposed Action:

1.1 Comment: “I think the project is well developed and I agree with the Modified III proposal.”

Response: Thank you for supporting the Peaked Hill Vegetation Project.

2.0 Vegetation

2.1 Comment: “I have no insight into future planning for the timber harvest in HMU 302. It could be that no harvests are anticipated for a number of years. Waiting five, ten, fifteen or more years for another opportunity is not acceptable. As each year passes the forest will move further away from the DFC.

Response: This project looked at only one compartment (compartment 303) within HMU 302 and it is likely that we will not have any harvest activity within this area for up to fifteen years. However in the EA under the cumulative effects analysis for Vegetation (Section 3.2.2, pages 21-23), other compartments within the HMU will likely be evaluated for harvest opportunities within the next ten years. The extent of future harvesting is not yet known, but there are at least 515 acres that have the potential to be silviculturally treated.

2.2 Comment: “The analytic response to my comment appears to represent a sound position. However the numerical comparison being presented is an apples and oranges relationship.

82 acres represents northern hardwood

21 acres represents n. hardwoods, paper birch, and aspen (Table 5)

To include all three types of regeneration, the formula should read $136 \text{ (not } 82) \times 13.5\% = 18.36 \text{ acres}$ ”

Response: The need for northern hardwoods, aspen and paper birch regeneration should have been looked at separately, rather than combined. To clarify, there is a need for 82 acres of northern hardwood regeneration 32 acres of paper birch and 22 acres of aspen within HMU 302. Since we are proposing only 13.5% of the HMU as the analysis area (compartment 303), this breaks down to a need of approximately 11 acres of northern hardwoods, 4 acres of paper birch and 3 acres of aspen within this compartment. We are proposing 17 acres (stands 4 and 8a) of northern hardwoods regeneration and 4 acres of aspen regeneration (stand 14). There are no opportunities for paper birch regeneration within this compartment.

2.3 Comment: “We are quite concerned that the forest service is logging a significant amount of old growth forest in the area. The EA only briefly mentions old growth and only as it relates to impacts on Soil Calcium: “In a comparison of harvested and unharvested areas, Martin et al (1999) reported finding in watersheds in and adjoining the Bowl Research Natural Area that within 100 years following heavy forest cutting in northern hardwood stands, natural forest regeneration and re-growth produces numbers of stems, basal area and biomass comparable to initial, old growth forest conditions.” EA, p. 36. Based on Table 7, EA p. 18, around 181 of the 229 acres would be considered old growth or potential old growth, since these stands are all at least 95 years old. Stand 7, at 145 years old certainly would qualify as old growth and should probably be protected and not logged. Old growth forests are rare in the eastern U.S. and an inventory of potential old growth should be

conducted in the project area. At the very least, an analysis on the impacts on old growth or potential old growth forest should have been done in the EA and should be considered a significant issue for analysis. Without this analysis, the project EA violates NEPA.”

Response: According to the 1986 Forest Plan, the definition of old growth is “a stand of trees that is past full maturity and showing decadence; the last stage in forest succession”. The definition does not define a specific age class or stand structure, but to answer your comment, the term “overmature” will be used.

Aging an uneven-aged stand can be somewhat misleading. Trees selected to age the stand are generally the largest or eldest and represent only a portion of the stand. Though the age of a stand might be classified as 100 + years, in reality the stand is composed of all age classes and is not a “single-age” stand. Because the majority of this area was in agricultural and farm land up until the 1930’s and then managed for forest products in the 1960’s, many of the trees are not considered over-mature.

According to the Forest Plan HMU composition objectives, 10% of the northern hardwood community type, 10% of the paper birch community type, 10% of the aspen community type, 10% of the spruce/fir community type, and 10% of the oak/pine community type within MAs 2.1 and 3.1 of HMU 302 will be maintained in the over-mature age-class. To be considered overmature, the northern hardwood community type must be 120+ years old, paper birch must be 80+ years old, aspen must be 60+ years old, spruce/fir must be 90+ years old, pine must be 120+ years old, and oak/pine must be 100+ years old. For this project approximately 4 stands are classified as overmature (stands 4, 6, 7, and 14) and represents 43 acres. Table 1 below shows the Existing Condition and the Desired Future Condition by community type for the over-mature age class in Management Areas 2.1 and 3.1 for HMU 302.

Table 1 Acres by Community Type for Over-mature Age Class in MA 2.1 and 3.1

Community Type	Existing Condition	Desired Future Condition
Northern Hardwoods	662	159
Paper Birch	0	32
Aspen	8	15
Spruce/Fir	74	51
Oak/Pine	147	8

Within the northern hardwood, spruce/fir and oak/pine community type, we are above the Desired Future Condition and harvesting within stands would not reduce the acres below this condition. Of the 43 acres of over-mature stands for treatment, approximately 12 acres (stands 4 and 14) would be converted from over-mature to regeneration age (0-10 years) and the remaining 31 acres (stands 6 and 7) would still be considered over-mature since they would be treated using uneven-aged management techniques.

As for the aspen and paper birch communities, both these community types are early successional and require shade-free conditions to grow and regenerate. To maintain these communities into the future, we are proposing even-aged management techniques such as clearcuts and patchcuts. Though stand 4 is classified as a northern hardwood, it contains quite a lot of paper birch and if we do not treat this stand or stand 14 (aspen) they will revert to northern hardwoods. We have made the choice to maintain these communities, rather than risk moving them into the overmature age class and losing this community type over time.

In addition, within HMU 302 there are 387 acres of over-mature acres of northern hardwood/mixedwoods, 14 acres of over-mature paper birch, 714 acres of overmature spruce/fir, and 7 acres of over-mature oak/pine within management areas that do not permit vegetative management (MAs 5.1, 6.1 and 6.2).

The 2004 Draft Forest Plan provides a very specific definition of old growth. The definition is “uneven-aged (three or more age classes) northern hardwoods and spruce-hemlock forest with many trees at least 200 years old. To qualify, it must be large enough to maintain reasonably steady age distribution, structure, species mix, and biomass consistent with natural disturbance cycles typical of the forest type in the long-term. There should be no evidence of past timber harvest or agriculture. Northern hardwood old growth occurs in 40+ acres in size and consists primarily of sugar maple and American beech that is 200+ years old. Softwood old growth occurs in blocks of 160+ acres in size and is largely made up of spruce and hemlock.

None of the stands in MA 2.1 and 3.1 of HMU meet this definition found in the 2004 Draft Forest Plan, but many stands may be described as moving towards old growth.

2.4 Comment: “Although clearcutting is likely to be the optimal method for creating a Permanent Wildlife Opening, the EA does not specify in which stand this opening would be created. Table 6, EA p. 16. The NFMA requires that clearcutting be used only where it is the optimum method to achieve its objectives. 16 USC § 1604(g)(3)(F) (“insure that clearcutting, seed tree cutting, shelterwood cutting, and other cuts designed to regenerate an even-aged stand of timber will be used as a cutting method on National Forest System lands only where (i) for clearcutting, it is determined to be the optimum method, and for other such cuts it is determined to be appropriate, to meet the objectives and requirements of the relevant land management plan.”). However, there is no determination that clearcutting outside of the 3-acre wildlife opening is the optimum method to achieve the objectives. Other types of even-aged logging methods could be used to achieve the objectives for early-successional habitat in stands 4, 8a, and 14.

Response: We are transferring three acres from Stand 10 (noted on the project map as Stand 10a) into the existing Permanent Wildlife Opening (Stand 28).

Within the Forest Plan (USDA Forest Service 1986a, VII-B-12), the management objective of MA 3.1 is one of intensive timber management and the wildlife emphasis

is placed on those species associated with early successional vegetative species, such as aspen and paper birch resulting from even-aged management. For MA 2.1, the even-aged management objectives are the same as MA 3.1. Stands 4 and 14 are located in MA 3.1 and stand 8a is located in MA 2.1.

It states in the Forest Plan (USDA Forest Service 1986a, VIII-M-4) that paper birch is best regenerated and grown using a clearcut or seed tree harvest method because it provides optimal conditions to maximize the amount and quality of paper birch reproduction and growth. Aspen is also very intolerant of shade and short lived and clearcutting in the form of patch cuts is the optimum harvest method. Aspen commonly sprouts from its roots and the growth of these sprouts are inhibited by over-topping vegetation found in shelterwoods, seed tree or single tree selection.

We are proposing clearcuts and patchcuts to regenerate paper birch and aspen since these species are not being generated through natural means (wind or ice storms).

Within MAs 2.1 and 3.1 lands within HMU 302, there are no stands classified as paper birch and only one stand (stand 14) classified as aspen. While doing field reconnaissance of the project area we found a northern hardwood stand (stand 4) that contained a large paper birch component. Though the prescription is classified as a patchcut, it will be similar to a seed tree cut where two paper birch trees per acre will be reserved as seed trees. Hopefully over time, this stand will be converted to a paper birch stand and this community type can be re-established in HMU 302.

Aspen is also an early successional species and if stand 14 is not treated using even-aged techniques it will revert to a mixedwood stand and the aspen community type will be lost. This stand is considered over-mature and there is already mortality within the stand. We are trying to maintain what we have and not lose this community type altogether.

A patchcut in stand 8a would increase regeneration age northern hardwoods in HMU 302 and move it closer to achieving the HMU wildlife habitat objectives.

3.0 Wildlife

3.1 Comment: “There appears to be some confusion regarding acreage need for Permanent Wildlife openings.”

Response: You are correct in noting an error in Table 1 of the EA for the amount of DFC acres for Permanent Wildlife Openings (PWOs) within HMU 302. Within HMU 302, there is a need for 54 acres to meet the DFC for PWOs. We apologize for any misunderstanding.

3.2 Comment: “There is one disagreement I have with the disposal of tops and brush accumulation at landings. If these could be left in piles or bunches rather than spread out it

would give rabbits a place for cover. This lasts for many years and even though they are out in the open, they need other places to hide and they do use tree tops and brush piles.”

Response: Within this sale, it may be difficult to leave brush piles on the landings for the following reasons; (1) two of the landings are located within Permanent Wildlife Openings which are burned every 3-5 years to maintain them in a grassy/brushy condition and; (2) one landing is located within an existing gravel pit. However, it may be possible to leave small brushpiles within the remaining landing (located on FR 724).

3.3 Comment: “Even though the 2005 NFMA regulations relieve the agency of population inventory monitoring and allow the Forest Service to “comply with any obligations relating to management indicator species by considering data and analysis relating to habitat,” this does not relieve the agency of its other requirements in the 1982 NFMA Rule. The Forest Service must still meet their ultimate requirements 1) to maintain viable populations of existing native and desired non-native species in the planning area and must 2) provide habitat to support, at least, a minimum number of reproductive individuals with 3) habitat that is well distributed so that those individuals can interact with others in the planning area. 36 CFR § 219.19 (1982). The new rules also do not relieve the agency of the requirement 4) to monitor population trends of the management indicator species and determine relationships to habitat changes. 36 CFR § 219.19(a)(6) (1982). All of these requirements apply to the planning area, which includes both the area covered by the Forest Plan as well as the proposed project area. Although viability determinations are provided in the analysis, there appears to be little, if any, discussion about how the project or the agency will 1) provide habitat to support, at least, a minimum number of reproductive individuals (“minimum numbers”) 2) with habitat that is well distributed so that those individuals can interact with others in the planning area (“well distributed”). There also doesn’t appear to be any reference to 3) monitoring of population trends (even if only by habitats) of the management indicator species to determine relationships to habitat changes (“trend monitoring”). A thorough discussion and analysis of these points must be part of a sufficient viability determination in order to pass muster. Although “trends” are listed in Table 17, there is no reference to actual data used to derive the trends.”

Response: The Code of Federal Regulations 36 CFR 219 provides guidance for implementing NFMA through Forest Planning. Specifically, 36 CFR 219.19 provides guidance for fish and wildlife resources. The Forest Service Manual provides further direction on management indicator species both in the wildlife, fish, and sensitive plant habitat management directives (FSM 2600) and the planning directives (FSM 1900).

The direction of 36 CFR 219.19 and the Forest Service Manual were considered during the forest planning process on the White Mountain National Forest and are incorporated into the current Forest Plan (USDA Forest Service 1986a and 1986b) and the new Forest Plan (USDA Forest Service 2004a). This involved developing a wildlife strategy to provide the major habitat components required by the wildlife species that occur on the Forest. This strategy was designed to distribute these habitat components across the landscape (Appendix B. of the Forest Plan, USDA Forest 1986a and USDA Forest

Service 2004a; 2-35). The types of monitoring required for wildlife are discussed in Chapter IV of the Forest Plan (USDA Forest Service 1986a). The monitoring plan is currently being revised for the new Forest Plan. This monitoring is conducted at the Forestwide level, not the project level. To date, Forestwide monitoring information for management indicator species, and habitat condition is summarized in the annual Forest monitoring and evaluation reports (USDA Forest Service 1993, 1994, 1995, 1996, 1998, 1999a, 2000a) and the Analysis of Management Situation document (USDA Forest Service 2001b).

Analysis of wildlife habitat condition and its distribution across the landscape, management indicator species, and species viability analysis are not applicable at the project specific scale. These management tools are applicable at the larger, Forestwide scale, and are therefore outside the scope of this site-specific project analysis for the Peaked Hill Timber Sale.

Some project level monitoring does occur. At the project level, we assess the existing habitat condition of the Habitat Management Unit. This is a tool to meet the goal of managing for a diversity of habitat condition distributed across the Forest. The summary of Habitat Management Unit condition is based on ten-year field inventories of forest habitat condition. This information is summarized in the EA and the Project File. We use this information to develop our proposed action. We then conduct field visits to the project area to verify habitat information. At the project level, we also conducted a botanical survey for rare plants and exemplary communities. The results of this analysis are discussed in the EA.

Regional population trends listed in Table 18 in the EA are based on information from the Evaluation of Wildlife Monitoring and Population Viability report (USDA Forest Service 2001a).

Forest habitat trends listed in Table 18 in the EA were based on information from monitoring reports (USDA Forest Service 1993, 1994, 1996), the Combined Data Systems (CDS) database, and the Analysis of the Management Situation for Wildlife (USDA Forest Service 2001b).

4.0 Unroaded Areas

4.1 Comment: “The Forest Service defines “unroaded areas” as any area without the presence of a classified road of a size or configuration sufficient to protect the inherent characteristics associated with its roadless condition. The southern portion of project area is within such an area, since it is contiguous to the Inventoried Roadless Area that extends north from the Caribou-Speckled Mountain Wilderness and there are no roads within a portion of the area. This unroaded area is comprised of the area south of Bog Brook and its unnamed tributary that terminates into Bog Brook near the end of Forest Road 741. Stands 4 and 14 would create clearcuts in this unroaded area and parts or all of stands 2, 11, 12, and 13 are contained within this unroaded area. However, there is no analysis on the adverse effects on this unroaded area in

the EA. An unroaded area, regardless of whether it is inventoried, provides habitat for wildlife, watershed protection, an area relatively free from weed invasion, and quiet recreation opportunities. Without further analysis on the effects on the unroaded area, the EA violates NEPA in that there is no “detailed statement” of “any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.” 42 U.S.C. § 4332(2)(C)(v). This is in direct conflict with prevailing law: “[T]he decision to harvest timber on a previously undeveloped tract of land is ‘an irreversible and irretrievable decision’ which could have ‘serious environmental consequences.’” *Smith v. United States Forest Service*, 33 F.3d 1072, 1078 (9th Cir.1994). The court held that under NEPA “tracts of ‘uninventoried’ land cannot be developed until wilderness classification has been considered.” *Smith*, 33 F.3d at 1073. “If . . . it is eligible for wilderness consideration, . . . failure of the Forest Service to address the area’s wilderness potential in its NEPA documents is fatal to the proposed logging project.” *Id.* at 1076, citing *California v. Block*, 690 F.2d 753 (9th Cir. 1982). It did not matter that the area “cannot stand alone as a 5,000 acre roadless area” for RARE II purposes, and the “agency must, under NEPA, consider the effect of a logging project on such a resource.” *Smith*, 33 F.3d at 1079 (emphasis added). If any project stands are actually and erroneously located within the inventoried roadless area, the same analysis applies. This may be the case since the boundary at the location of the project area used topographic contours instead of natural boundaries. Here, it would have been more appropriate to use Bog Brook as the IRA boundary, which would place Stand 4 inside the IRA.”

Response: The reference to “unroaded areas” cites a term and definition that are no longer applicable. Originally described in Interim Directive 7710-2001-1 and 7710-2001-2, the direction to address road management activities in inventoried roadless and contiguous unroaded areas was removed from the Forest Service Directive System by Amendment Number 7700-2003-2, effective December 16, 2003, which superseded both ID 7710-2001-1 and 7710-2001-2. The Forest Service Manual no longer includes Chapter 7712.16 through 7712.16d, which had described “contiguous unroaded areas”.

As an aside, if the Forest Service still considered management of roads within a contiguous unroaded area, FSM 7712.16, if still in use, would have required that the area be 1,000 acres or more in size. The area described in the comment for consideration as unroaded is actually less than 300 acres, and includes segments of two classified roads.

The substantially completed EA made available to the public for formal 30-day comment included the summary statement that “None of the proposed stands are located within the 1986 and 2000 Roadless Areas, and the 2004 Forest Plan Revision Roadless Area Inventory; therefore, there are no direct, indirect or cumulative effects on roadless characteristics.” In response to your concerns, the completed EA provides the analysis that is the basis for this summary statement; and includes further analysis and disclosure of non-significant effects on Wilderness characteristics.

The 2004 Forest Plan Revision Roadless Area Inventory (USDA Forest Service.1986a and 1986b) constitutes an on-the-ground field review of roadless characteristics for the White Mountain National Forest (including the Peaked Hill project area, and the Caribou

1 Inventoried Roadless Area). This inventory was conducted in accordance with Forest Service Manual and Handbook direction (Forest Service Manual 1920 – Land and Resource Management Planning; Forest Service Manual 1909.12 – Land Management Planning Handbook) and Eastern Region direction for Roadless Area Inventory (USDA Forest Service. August 13, 1997, Eastern Region, Roadless Area Inventory for Forest Plan Revision).

The commenter has proposed an alternative boundary for the Caribou 1 Inventoried Roadless Area. Final determination of the IRA boundary is part of the Forest Plan Revision process and is beyond the scope of this project. Given your concern about the effects of clearcutting Stand 4, if the area between the Caribou 1 boundary and Bog Brook were part of the Inventoried Roadless Area, the 8-acre clearcut would increase the regeneration acres within the Caribou 1 Inventoried Roadless Area. However, the total regeneration acres would still be well below that allowed for the Caribou 1 area to still be considered roadless (See Table 2 below) – increasing the inventoried regeneration acres to 242, while the amount allowed is 1,861 acres. And, if Stand 4 was proposed for harvest in an expanded Caribou 1 Inventoried Roadless Area, its effect on the roadless characteristics of the area would be limited to the 10-year period following harvest during which the stand would be in a regeneration phase. Harvest of the 8-acre stand would not be irretrievable, since the stand would regenerate and grow back into a mature forest over time, enclosing the canopy of the adjacent stands. The effects of the harvest would not be irreversible, since the addition of 8 regeneration acres would not remove the Caribou 1 area from the Roadless Area Inventory, nor would it adversely effect or otherwise prevent the area from being considered as potential Wilderness in the Forest Plan Revision process. No road restoration, reconstruction or construction is proposed within the area between the Caribou 1 boundary and Bog Brook.

Table 2: Regeneration Acres in the Caribou 1 Inventoried Roadless Area

Roadless Characteristics	Draft Caribou 1 Roadless Area
Total Acres	9,306
Regeneration Acres (0-10 yrs)	
Maximum acres to meet Roadless criteria (20%)	1,861
Maximum acres prescribed in 1986 Forest Plan ¹	289
Existing Regeneration Acres (0-10 yrs)	234

¹ Equals maximum allowed under current Forest Plan (10% of MA 2.1 and 3.1).

5.0 Soils

5.1 Comment: The EA contains an inadequate discussion of soil impacts. While there is discussion about soil erosion and soil calcium, there isn't one mention of the effects the logging would have on soil compaction. Along with soil erosion, soil compaction from heavy equipment used during logging, can have a significant impact on the productivity of an area. By its nature, soil compaction can be considered a significant effect for many generations on the ability of an area to recover and produce growing conditions favorable to native vegetation.

Generally, each Forest Service Region sets minimum thresholds for soil disturbance from logging that are in the range of 15% of the logged area. This should include any log landings, roads and skid trails. Although this level is highly arbitrary, it is usually a standard that must be adhered to, and an analysis on the impacts from the project must be measured against this standard. Here, there is no such analysis in the EA and therefore it violates NEPA and the Regional Standards. In fact, the EA states that “Scarification from timber harvesting occurs over a greater percentage of the ground compared to prescribe burning or mechanical site preparation.” EA p. 20. This should be a strong indication that there is an environmental impact that needs to be analyzed. Although the EA does include the following statement: “Research reveals that soil bulk density of landings returns to preharvest densities two to three years following harvest (Donnelly et al 1991). At no time is the oxygen content of the soil unable to support plant growth which is why these areas are easily re-vegetated following use.” However, this does not include an analysis of compaction on skid trails, skid roads, or other roads in the project area.

Response: Soil compaction has not normally been an issue with timber harvest operations on the White Mountain National Forest given research that demonstrates that soil bulk density typically recovers within three years of harvesting activities, and our experience with revegetation of skid trails and landings. We noted your concerns and conducted a field review of the analysis area, and we expanded the analysis to include soil compaction (see Section 3.6.1 of the EA).

Ground-based logging can cause soil impacts. Nevertheless we conclude in our analysis of the impacts of past, present, and expected future activities that the proposed action could be implemented while complying with the soil quality standards and maintaining soil productivity. Adverse impacts are minimized by implementing project design criteria (Forest Plan standards and guidelines, and BMPs and other mitigations). The season of harvest and stand-specific mitigations are dependent on ecological land type and slope within each stand.

Soil compaction within the project area will briefly be greater than the existing condition because of operations on the main skid trails and landings. This impact is expected to be short-term (less than 3 years after harvesting operations are completed) since skid trails and landings are intended to be temporary and should revegetate after the operations are complete (Donnelly et al 1991, Holman et al 1978). Note that, with the exception of poorly drained sandy loams in Stand 11, the majority of the stands to be treated are moderately well to well drained sandy loams or loamy sands (See Table 11 of the EA). These soils types are not typically dense and subject to compaction. All applicable Forest Plan standards and guidelines will be met. There are no additional project-specific mitigation measures.

As stated in the EA, Holman et al. (1978), working in areas near a spruce-fir site in Maine, concluded that compacted soils can be restored to their original bulk density by freezing and thawing, wetting and drying, root penetration, and animal activity. They found that in those parts of the harvest area that were not skid trails, bulk density returned

to pre-harvest levels within one year. Bulk density of skid trails in winter harvest areas returned to normal after two winters. Field review of the analysis area verified these findings, as the main skid trails had effectively revegetated and otherwise exhibited little or no evidence of residual compaction (Colter 2005).

Based on the planned road restoration, skid trails and landings for the action alternatives, the soil disturbance anticipated for the project area as a result of timber harvest operations is well below the 15% threshold (see Section 3.6.1 of the EA). Alternative 3 should have even less of an impact since it relies more on winter harvesting than Alternative 2.

Scarification is defined as a scuffing of the forest floor (Martin 1988). Section 3.2.1 of the EA notes that scarification, “exposes mineral soil and decreases competing understory vegetation.” However, even though organic layers are mixed with the mineral layers, the organic layers do not leave the site, and scarification itself results in little compaction or erosion occurring with loss of nutrients. This section of the EA also notes that scarification can benefit softwood, oak and birch regeneration by limiting competing vegetation.

6.0 Streams and Water Quality

6.1 Comment: The EA refers to an analysis of stream buffers in the Connor Brook EA, however, that analysis is not included in this EA. A reference to a project analysis outside the EA is not adequate under NEPA. Tiering can only be done to a programmatic EIS, such as the Forest Plan EIS. Here, there is no justification in this analysis of why a 25-foot no-cut buffer is adequate and a 75-foot partial cut buffer would be adequate to protect Bog Brook and its unnamed tributaries from potential instability. In addition, there’s no discussion about the effects of sediment movement on the watershed or the streams in the project area, but only for water quality. Surely the clearcuts proposed in stands 4 and 14 as well as other cuts and associated skid trail and road use would have some sort of direct effect on sediment movement into Bog Brook, but no specific analysis is provided on the effects on the streams or watershed conditions. While acres of disturbance is indicated for skid trails and road restoration as it pertains to water quality and sediment movement, there’s no analysis of potential sediment movement from the permanent wildlife opening that will be constructed. In another location in the EA, we were told that this opening would be prepared for planting of some sort and would be maintained in some fashion. This would certainly cause additional sediment movement.

Response: The reference you mention to an analysis of stream buffers in the Connor Brook EA is not “tiering”, it is “incorporation by reference”. Incorporation by reference is described in 40 CFR 1502.2, and guidelines for its use are described in the Forest Service Handbook (FSH) 1909.15. FSH 1909.15 Chapter 42.3 (Environmental Assessments and Other Related Documents) allows the incorporation of materials “into EA’s by reference when the result will be to cut down on bulk without impeding agency and public review of the proposed action and alternatives.” Also note that Chapter 42.2 allows “adoption” of other existing EA’s or portions thereof to eliminate duplication and reduce excessive paperwork. With regards to water resources, the Peaked Hill project

has many similarities to the Connor Brook project; and, where applicable, the analysis of direct and indirect effects in the Connor Brook EA had application to the Peaked Hill project. When the Connor Brook EA was incorporated by reference, the Peaked Hill analysis includes a summary of the incorporated material, its specific relevance to this project and a citation of the reference. The incorporated material was readily available for inspection by interested persons within the time frame allowed for comment. FSH 1909.15, Chapter 65.13 (24c and 25b) provides additional guidance on the difference between tiering and incorporation by reference.

The Maine Department of Environmental Protection (DEP) requires a 75-ft buffer width for 2nd order streams up to a drainage area of 25 square miles (Maine Department of Conservation, Maine Forest Service. 2003). The total drainage area of the project is about 4,900 acres (7.7 square miles), so the Peaked Hill Project would fall into the 75-ft buffer width category for the perennial streams in the watershed. The Maine standards for this buffer state, "The residual stand must be windfirm and contain an average basal area of at least 60 sq ft per acre of woody vegetation greater than or equal to 1.0 inch DBH, of which 40 square feet per acre must be greater than or equal to 4.5 inches DBH."

The effectiveness of Maine BMPs has been monitored and documented (Maine Department of Conservation, Maine Forest Service. 2005). This monitoring indicated that "BMPs use was effective in avoiding soil deposition into surface waters on 82% of harvest sites with water bodies present."

The Peaked Hill Project proposed will maintain a 25-ft no-cut buffer and an additional 75-ft partial-cut buffer around all perennial streams. Within the 75-ft partial cut buffer, the residual stand would be designed to leave an average of 70 square feet of basal area measured as trees equal to or greater than 5" DBH. In stands proposed for clearcutting, a 100-foot no-cut buffer would be maintained around all mapped perennial streams. The buffers proposed by the White Mountain National Forest for the Peaked Hill Project exceed the standards required by the state of Maine. By following all Maine BMPs and exceeding the recommended BMP in regards to buffer widths and basal area requirements, it is likely that the effectiveness of the riparian buffers in the Peaked Hill Project would exceed the 82% effectiveness found in the Maine study.

There may be some soil surface movement within the harvested stands, but the risk of soil entering Bog Brook from harvested stands is very low due to the larger buffers. The only location where these buffers do not apply is at stream crossings. There is the potential for increased sediment inputs at stream crossings, but any effects would be short-term as the crossings are expected to re-vegetate.

In regard to the two proposed patch cuts, stand 14 is located over 600 feet from Bog Brook and stand 4 is located over 180 feet from the brook. Because of their location and the relatively flat terrain, the risk of soil entering Bog Brook is very low. In addition, all stands within 1/4 mile of Bog Brook would be harvested in the winter so soil disturbance is minimal due to likely snow cover and frozen ground conditions.

The Permanent Wildlife Opening (PWO) would not be constructed, but would be harvested like a patch cut, and thus would have impacts similar to a 3-acre patch cut. The slope between the PWO and the intermittent stream it drains to is approximately 2-3%. This stream is located approximately 700 feet from the PWO, which far exceeds riparian standards and guidelines. No ground disturbance beyond timber harvesting is expected at this time. Maintenance of the PWO would involve prescribed fire. Prescribed burns, by design, do not consume extensive areas of organic matter (Baker, M.B. 1990). Cool-burning prescribed fires have been shown to have little impact on erosion and sedimentation, whereas intense wildfires may have substantial impacts (Brooks, et al 1997). Research has shown that riparian vegetation traps sediment from side slopes that would otherwise enter the channel if riparian vegetation is not present (Brooks et al 1997). Since the stand proposed for prescribed fire has a large vegetative buffer strip, it is unlikely that any increased erosion from the prescribed fire would reach flowing water.

Sediment was analyzed in both the water quality section of the EA (Section 3.7.4) and the stream condition section of the EA (Section 3.7.2). Healthy riparian areas have benefits which include filtering of sediment. The proposed riparian buffer strips would be implemented to keep riparian areas intact and allow for filtering of sediment.

7.0 Mitigation Measures

7.1 Comment: “NEPA regulations require that an EA discuss means to mitigate adverse environmental impacts of the proposed action. Those mitigation measures must be analyzed in detail and must explain, in detail, how effective they will be in mitigating any adverse environmental impacts. Without analytical data to support the proposed mitigation measures, these amount to nothing more than a “mere listing” of good management practices. A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA. And simply pointing out that Best Management Practices (“BMPs”) will be followed is not an adequate discussion of means to mitigate adverse environmental impacts. Even though there is some site-specific information about which mitigation measures would be applied, which is to be commended, there is no analysis on the effectiveness of these mitigation measures to justify a FONSI. There is also no mention of what will be done if mitigation measures fail to work in this area. Without an analysis of the effectiveness or consequence of failure, should it occur, there’s a likelihood that significant adverse impacts would occur which would require a full EIS.”

7.2 Comment: “Actual and anecdotal information leads us to be suspicious about the actual implementation of mitigation measures for the project. The only way to insure that mitigation measures are carried out to avoid significant effect that justify a FONSI is if 1) a detailed mitigation plan is produced before the project is implemented, 2) the NEPA compliance official makes sure that the timber sale unit maps match the stand maps in the EA, 3) the timber sale administrator makes sure that the stands are laid out and marked in accordance with the EA and unit maps, and 4) all of the mitigation measures are specifically included in the timber sale contract. Without these checks and balances, a

FONSI is not justified and the project could have a significant impact on the environment, requiring production of a full Environmental Impact Statement.

Response: During project planning, we evaluate Forest Plan Standard and Guidelines and BMPs to determine if any additional protection measures need to be incorporated into the project. These additional measures become our site specific mitigation measures and are developed using the professional judgment of resource specialists who have years of education and experience in their field. The intent of each mitigation measure and who is responsible for implementation is clearly stated in Appendix D and was developed to minimize adverse resource effects, improve wildlife habitat and provide for public safety.

All the mitigation measures (with the exception of prescribed burning) listed in Appendix D will be incorporated into timber sale contract clauses and maps, or sale layout and marking guidelines and implemented by the sale administrator or marking crew.

Because many of these mitigation measures are developed into timber sale contract clauses, the sale administrator documents the effectiveness of the mitigation measures through weekly (or sometimes bi-weekly) inspection reports. Some of the specific items that the administrator is monitoring on a weekly basis are slash disposal; erosion control; landing, temporary roads and skid trails; road closure and maintenance; and damage to residual trees. If these mitigations are not being effectively implemented on the ground or if any new resource is discovered within the project area, then the sale administrator has the authority to shut down the operation to allow further research or terminate operations. By evaluating these measures on a continual basis, we can determine rather quickly whether these mitigation measures are working and can adjust them in the near future if they prove to be ineffective.

As for prescribed burning, these mitigation measures have been used in past with positive results. By informing the public of burning plans prior to operations, there have not been any safety incidents. Also, by burning during the Indiana bat hibernating season, the bats would not be present on the Forest.

These mitigation measures have been successfully implemented on similar past projects as seen on District post-harvesting monitoring trips which review the effectiveness of mitigation measures (USDA Forest Service. Androscoggin District post-harvesting monitoring reports).

8.0 Cumulative Effects

8.1 Comment: There is no full cataloging of past projects and no discussion of how those projects (and differences between the projects) have harmed the environment. There is no listing of individual past projects (either FS or private) on the Bog Brook watershed or HMU 302. Moreover, there is no discussion of the connection between individual harvests (FS or private) or other developments and the prior environmental harms from those harvests that the Forest Service acknowledges. Instead, the EA contains only vague discussion of the general

impact of prior timber harvesting or other developments, and no discussion of the environmental impact from past projects on an individual basis, which might have informed the analysis about alternatives presented for the current project. For the public and agency personnel to adequately evaluate the cumulative effects of past timber harvests and other projects (FS and private), the EA should have provided adequate data of the time, type, place, and scale of past timber harvests and other projects and should have explained in sufficient detail how different project plans and harvest methods affected the environment. The general rule under NEPA is that, in assessing cumulative effects, the assessment must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment.

8.2 Comment: Soil Erosion and Compaction, Streams and Water Quality: The same points about a lack of catalogued actions and inadequate time horizon for analysis apply to soils, streams, and water quality issues. There is no list of past projects (FS or private) and no cumulative soil compaction analysis, and therefore the analysis is insufficient for purposes of NEPA. No specific list of sediment sources from current or past projects

Response to Comments 8.1 and 8.2: Cumulative effects analysis in the Peaked Hill EA is consistent with the June 24, 2005 CEQ Memorandum entitled “Guidance on the Consideration of Past Actions in Cumulative Effects Analysis” (*CEQ, June 24, 2005*), in which the Council on Environmental Quality clarified “the extent to which agencies of the Federal government are required to analyze the environmental effects of past actions ... in accordance with Section 102 of the National Environmental Policy Act ... and the CEQ Regulations for Implementing the Procedural Provisions of NEPA, 40 CFR parts 1500-1508.” This guidance clarified the following parameters when considering present effects of past actions:

1. “In determining what information is necessary for a cumulative effects analysis, agencies should use scoping to focus on the extent to which information is ‘relevant to reasonably foreseeable significant adverse impacts’, is ‘essential to a reasoned choice among alternatives’, and can be obtained without exorbitant cost (*40 CFR 1502.22*).”
2. “Based on scoping, agencies have discretion to determine whether, and to what extent information about the specific nature, design, or present effects of a past action is useful for the agency’s analysis of the effects of a proposal for agency action and its reasonable alternatives.”
3. “Agencies are not required to list or analyze the effects of individual past actions unless such information is necessary to describe the cumulative effect of all past actions combined.”
4. “The CEQ regulations, however, do not require agencies to catalogue or exhaustively list and analyze all individual past actions. Simply because information about past actions may be available or obtained with reasonable effort does not mean that it is relevant and necessary to inform decisionmaking.”

In accordance with the guidance in (*CEQ June 24, 2005*), in 40 CFR 1500-1508, and in the January 1997 CEQ publication “Considering Cumulative Effects Under the National Environmental Policy Act” (*CEQ, January 1997*), the cumulative effects analysis for each resource in the Peaked Hill EA considered a geographic area and a time frame of past, present and foreseeable future actions “relevant to reasonably foreseeable significant adverse impacts” on that resource, and “essential to a reasoned choice among alternatives”. The EA should not consider actions “outside the geographic boundaries or time frame established for the cumulative effects analysis” (*CEQ January 1997*).

With regard to vegetation resources; in response to your concerns, Section 3.2.2 of the EA describes in greater detail why the geographic boundaries and time frame were selected for this resource. We did not go back further in time because there were no past activities prior to 1995 that impacted vegetation beyond what was anticipated. As for private lands within the cumulative effects analysis area, orthographic photos prior to 1995 shows 96% of the lands in forested conditions. The remaining lands have been residential housing or agricultural lands for at least 150 years.

On Forest Service land, there have not been any timber sale harvests or past projects within the Bog Brook watershed or HMU 302 since 1995. On private land, there have been approximately 66 acres of uneven-aged harvest within the Bog Brook watershed (which is included in the total of 100 acres of uneven-aged harvest within the cumulative effects area) and the EA considers effects resulting from potential future timber harvest on private lands.

With regards to water resources, the time scale analyzed for water resources was 1995-2015. Research at Hubbard Brook has shown that increases in water quantity following large-scale clearcuts became greatly reduced 3-4 years after timber harvest, and became undetectable 7-9 years after harvest (Hornbeck et al 1997). A twenty-year time frame is thus adequate for water quantity analysis. The time scale needed for water quality and stream condition are decided on a site-specific basis. In the Connor Brook EA, previous intensive timber harvesting prior to Forest Standards and Guidelines resulted in visibly unstable stream channels. The cumulative effects analysis for the Connor Brook EA therefore extended back to 1969 to encompass the events which caused these impacts. In the Peaked Hill Project, extensive field review did not indicate that specific events prior to 1995 caused impacts to stream condition or water quality that would necessitate a longer time frame to be analyzed.

With regards to soils, we noted your concerns and conducted a field review of the analysis area to verify that the condition of the site matched our expectations (based on research and experience) regarding soil compaction. And we expanded the analysis to include soil compaction (see Section 3.6.1 of the EA), using a time frame of 1988-2015 to include the last timber sale in the project area (Twayblade). Field review of the analysis area revealed no lingering effects of compaction from the Twayblade sale, and soil conditions consistent with our expectations.

8.3 Comment: In the EA, the analysis period for cumulative effects to vegetation is justified using the following criteria: “The cumulative effects time period spans a period that considers activities ten years in the past and ten years in the future (1995 to 2015). Ten years was the time period selected because it represents the length of time after a stand is harvested when it is considered in the regeneration phase of development (i.e. the canopy is not fully closed and sunlight can penetrate the majority of the ground).” For past actions, this is hardly adequate, since the cumulative effects on vegetation from actions over 10 years ago can have an effect on current and future vegetation composition. The EA acknowledges that the area “has a history of agricultural use dating back to the early 1800’s and in the 1930’s was reclaimed back to forest land. Since the 1960’s it has been actively managed for wildlife habitat and forest products.” The effects from those past activities are still relevant and should be considered in any cumulative effects analysis on vegetation. In fact, the EA acknowledges specific projects but does not analyze them because of the arbitrary 20-year window.

Response: You are correct in that past vegetative management projects beyond the ten year period have influenced the current vegetation in the area. The Forest Service has managed this area since the 1960’s and the current stand conditions are based on these past treatments. We typically treat a stand every 15 to 20 years so each time a stand is entered, the vegetation and age composition will be somewhat changed. Taking into account the past management history, we examined the existing condition of the analysis area and then selected stands for harvest and developed prescriptions.

Since the objectives of vegetation management is to work toward the Desired Future Conditions (DFC), we are looking at opportunities to increase the regeneration age class (0-10 years) for northern hardwoods, paper birch, aspen, spruce/fir and oak/pine. We thus chose a ten year period to analyze the cumulative effects because this is when species are considered to be in the regeneration phase of development.

We also chose this temporal scale because the canopy of a regeneration age stand is considered open and early successional species, such as aspen and paper birch can become established. After a stand reaches 10 years of age, the canopy is considered closed and the opportunity to establish early successional species is very limited.

9.0 Fire

9.1 Comment: An individual expressed his concerns regarding the use of prescribed fire for site preparation based on observations as the result of the Pingree and Harriman Brook underburns conducted in the spring of 2004. He strongly opposes the use of prescribed fire for underburnings for the following reasons; (1) damage to soils by burning off the organic duff layer; (2) destroys wildlife habitat; (3) negatively affects wildlife populations, including nesting birds; (4) visually damaging due to mortality and blackened trees that is evident into the future. This is contrary to the Forest Plan standards and guidelines for scenery; (5) it is not effective (based on the above mentioned burns), there is little pine regeneration occurring in the burned areas and plenty of pine regeneration on the edges and outside of the burned

areas; (6) it is a waste of money due to its ineffectiveness and that it is experimental in our area. We are proposing underburnings just because we get funding for it and (7) underburning wastes natural resources due to scarring and mortality of some of the mature pine.

Response: In regard to these concerns; **(1)** The objective of under-burning is to expose mineral soil which provides a seedbed for oak, pine, aspen, yellow birch, and many other tree species. Without exposure of the mineral soil, pine is unable to successfully germinate. In the case of the Albany Township (Maine) under-burns and the proposed Peaked Hill prescribed burn we want to perpetuate pine by reducing competing species and providing a seedbed for pine cones. The type of firing method used in under-burning has a low to moderate intensity fire with a short burn time.

It is also important to note that fire was historically used by Native Americans and farmers to improve agricultural productivity in New England. Abandonment of many of these pasture and farm lands resulted in today's oak and pine stands being created. The Albany Township pine stands and the Peaked Hill pine stands are located near abandoned farming communities.

(2) and (3) Any burning or mechanical treatment for pine/oak regeneration would occur between November 1 and May 15 so the potential for a negative impact to nesting birds would be minimal. There are some raptors that may start to nest before May 15. These birds are often vocal if present and would likely be detected in the burn area during pre-burn inspections of the area. Any active raptor nest that is detected in a burn unit will be protected. Protection includes avoiding the nest tree by constructing a fire line or wet line beyond the crown of the tree, and avoiding burn periods when wind may carry smoke into the crown of the nest tree.

Underburning has been proposed in conjunction with timber harvesting to increase the amount of light reaching the forest floor. Research has found that oak and pine seedlings regenerate best when the topsoil is scarified (USDA Forest Service 1983, Demaris 1996). This reduces the competition from other species and provides for the best conditions for oak and pine seedlings to regenerate. There will be a negative effect on competing hardwoods and softwoods regeneration. However this is an opportunity to maintain this type within the HMU and meet the desired goal of our Forest Plan to provide an array of habitat conditions for wildlife. Wildlife species that occur on the White Mountain National Forest (DeGraaf and Yamasaki 2001) are associated with an array of habitat types including spruce/fir, oak/pine, hardwoods, and hemlock.

(4) The visual effects of prescribed fire upon the scenery were described in Section 3.4.1. We do acknowledge that blackened stems of reserve trees and underbrush would be visible, but these effects would be short lived once the understory has recovered. According to the Forest Plan Standards and Guidelines for scenery management, it states that all management activities must meet the Visual Quality Objectives (VQOs). Stands 6 and 10 have a VQO classification of retention which means that management activities

are not evident to the casual forest visitor. A two tree length no-management buffer would be left along Route 2, so that any trees harmed or killed by under-burnings should not be evident to passing motorists. These stands are also not located near any recreational trails (hiking or snowmobile) so casual visitors to this area are unlikely. The VQO classification for stands 10 and 10a is modification which means management activities may dominate the landscape. The visual effects for prescribed burning within these stands meet the modification VQO.

(5) Prescribed fire is being used by the New England chapters of The Nature Conservancy, The State of New Hampshire, the Green Mountain National Forest, and the Department of Defense to perpetuate pine and oak communities across northern New England and the state of New York. These land management agencies are modeling their fire prescription based on the prescribed fire studies conducted from the 1970's through the present by university professors such as Drs. Weyerick, Patterson, and Ken Adams (University of New Hampshire, University of Massachusetts, and State University of New York respectively) along with other researchers.

Perpetuating pine and oak stands takes a long term commitment by a land management agency regardless of whether they use fire or other mechanical means. The success of such treatment often takes decades to see. In the case of the Albany Township prescribed burns, we are only in the initial stages of treatment. The above mentioned pine stands in Albany will require further burns and harvest treatments to successfully perpetuate pine.

The use of fire to assist in the perpetuation of white pine was prescribed by a silviculturist. The recommendation to treat the pine stands in Albany Township with fire occurred several years before Congress funded a national program to reduce fuels and restore ecosystems. The original funding source to complete the prescribed burns was to come out of timber sale revenues. The WMNF chose to use national fire plan funding because prescribed fire provided multiple objectives of site preparation, firefighter training and hazardous fuels reduction.

(6) The strategy and objectives of the Albany Township under-burns is to reduce the duff layer and competing species over multiple burns. The effectiveness of the fire treatments will not be demonstrated for 5 or 10 years.

While laying out the burn units, areas that had sufficient pine regeneration were avoided. This may explain why pine growth is seen on the edge and outside of the burn area. Pine regeneration was also present on skid trails inside and outside the burn units. Skid trails are often taken down to mineral soil by the act of dragging logs -- the same objective that we hope to achieve by the use of fire. However it is expected that the same skid trails will be used in future harvesting and that any regeneration that has taken place will be lost during the next timber harvest.

(7) Some mortality and scorching of mature pine is expected during a prescribed fire. In the case of the Harriman Brook under-burn in Albany Township, the percentage of

scorching and mortality was higher than predicted in certain areas of the stand. Unfortunately these areas of high intensity fire occurred near the gravel pit and snowmobile trail giving the impression to some of the public that the entire burn was unsuccessful. The cause of ‘pockets’ of high intensity fire can be attributed to heavier fuel loading and a change in wind direction.

10.0 Other Comments

10.1 Comment: “I continue to be in support of the projects alternative 2 for the reasons documented in my “scoping report” response, but continue to appeal for more hardwood regeneration acreage to move this HMU closer to the Forest Plan objectives...We continue to need to maximize every opportunity to move the conditions of the forest towards the Forest Plans “Desired Future Condition.” If we fail to seize each opportunity then the Plan is for naught.

Response: We looked at this compartment very closely for opportunities to create regenerating northern hardwoods, aspen and birch. Approximately 23% of the stands within this compartment are classified as northern hardwoods or aspen, the remaining 77% of the stands are classified as either mixedwoods, white pine, or pine/oak/ash stands. Of the three stands classified as northern hardwoods only one was proposed for harvest. Of the remaining two other stands, one stand had been treated in 1988 and has low stocking density and the other stand, though classified as northern hardwood, upon site review was found to be predominately hemlock. The one aspen stand in the compartment (stand 14) is proposed as a clearcut.