United States Department of Agriculture
Forest Service
White Mountain National Forest
Saco Ranger District
33 Kancamagus Highway
Conway, NH 03818
Comm (603) 447-5448
TDD (603) 447-1989

File Code: 1950
Date: December 11, 2006

Dear Interested Citizen,

Following review of the environmental analysis for the Chase Hill Project, I have decided to implement the project as described in the attached Decision Memo.

The Proposed Action is to conduct a shelterwood preparatory cut on 57 acres. Individual trees will be selected for removal based on species, form, vigor, crown position and position relative to small whorled pogonia populations. Northern red oak and eastern white pine will be favored for retention. The preparatory cut will thin the stand from below to a residual stand density of 90 sqft of basal area per acre. Harvesting will be done during a snow free season to scarify the seed bed and help control undesirable understory vegetation. A site preparation treatment will be conducted in conjunction with the preparatory cut. This treatment will kill undesirable tree species less than 5" DBH by mechanical means. The purpose of this treatment is to help manage the light environment in the understory to favor small whorled pogonia and the establishment of oak/pine seedlings. One new landing located off Chase Hill road will service the project. This landing will be set back approximately 50-100 ft from the road and will encompass up to one acre.

Known small whorled pogonia populations will be protected during the harvest through the establishment of no-entry buffers. The Forest Botanist prepared detailed monitoring protocol for the small whorled pogonia populations within the project area. This protocol includes gathering baseline data and then monitoring the effects of this project for a 15-20 year period.

Copies of the Decision Memo for this project are available for public review at the Saco Ranger District, 33 Kancamagus Highway, Conway, NH 03818. In addition, it is posted on the White Mountain National Forest web page and can be viewed at www.fs.fed.us/r9/forests/white_mountain/projects.

This decision is subject to administrative review (appeal) by individuals or orginizations who provided timely and substantive commenst during the environmental analysis. Information regarding appeal procedures is enclosed in the Decision Memo.

Your comments contributed to my understanding of issues and enabled me to make a more informed decision. I look forward to your continued involvement in projects on the Saco Ranger District.

Sincerely,

/S/ Terry Miller
District Ranger

Chase Hill Project
Decision Memo

United States
Department of Agriculture

Forest
Service

September 2006

Town of Albany

Carroll County, New Hampshire

For Information Contact: Keith Konen
Saco Ranger District
White Mountain National Forest
33 Kancamagus Hwy
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This document is available in large print.

Contact the White Mountain National Forest Supervisor's Office

1-603-528-8721

TTY 1-603-528-8722

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1.0 – Decision

1.1 – Background

The White Mountain National Forest has identified a need to reduce the stand density of a mixed pine/hardwood stand located on Chase Hill in Albany, New Hampshire. The stand is currently overstocked with trees shading the forest floor and species composition suggests a conversion from oak/pine to hemlock/beech. This stand contains a federally threatened orchid, small whorled pogonia (*Isotria medeoloides*). This orchid appears to prefer second-growth timbered stands on acidic, sandy loam soils. It appears that too much shading may be the limiting factor for this species (USFWS, 1992). Monitoring of the population of small whorled pogonia in this area since 1994 indicates a decline in the number of stems. The Proposed Action would promote future growth and health of the residual trees, ensure retention of the oak/pine forest type, and enhance habitat for a federally listed plant by increasing the amount of sunlight reaching the forest floor.

1.2 – Location

The Chase Hill Project is located in the town of Albany, Carroll County, New Hampshire. The Project Area is Stand 26 of Compartment 78. This stand is 57 acres in size and is surrounded on all sides by private land. Bald Hill Road borders the stand on the south and Chase Hill Road on the west. Access to the stand is gained by taking Bald Hill Road west from State Route 16 near Conway, NH (see Figure 1).

1.3 – Proposed Action

The Proposed Action is to conduct a shelterwood preparatory cut on 57 acres. This treatment is similar to a thinning, except that consideration is given to the establishment of advanced oak/pine regeneration. Throughout the range of northern red oak (*Quercus rubra*) and eastern white pine (*Pinus strobus*), shelterwood systems are the preferred method for successfully regeneration and maintenance of that forest type (Sander, 1977; Lancaster and Leak, 1978). Individual trees will be selected for removal based on species, form, vigor, crown position and position relative to small whorled pogonia populations. Northern red ok and eastern white pine will be favored for retention. The preparatory cut will thin the stand from below to a residual stand density of 90 sqft of basal area per acre. Following the harvest, the stand will remain stocked with mature trees. Harvesting will be done during a snow free season to scarify the seed bed and help control undesirable understory vegetation. A site preparation treatment will be conducted in conjunction with the preparatory cut. This treatment will kill undesirable tree species less than 5” DBH by mechanical means. The purpose of this treatment is to help manage the light environment in the understory to favor small whorled pogonia and the establishment of oak/pine seedlings. It has been found that controlling competing vegetation may be necessary for successful oak regeneration (Sander, 1977; Dey and Parker, 1996)

Known small whorled pogonia populations will be protected during the harvest through the establishment of no-entry buffers. These buffers were established by the Forest Botanist, with specific consideration to small whorled pogonia habitat requirements.

The Forest Botanist prepared detailed monitoring protocol for the small whorled pogonia populations within the project area. This protocol includes gathering baseline data and then monitoring the effects of this project for a 15-20 year period. The United State Fish and Wildlife Service reviewed and supported this protocol.

One new landing located off Chase Hill road will service the project. This landing will be set back approximately 50-100 ft from the road and will encompass up to one acre.

See Appendix A for Design Features specific to this project.

1.4 – Description of the Decision

After reviewing the environmental analysis and public comments for the Chase Hill Project, my decision is to approve the Proposed Action and associated commercial timber harvest on 57 acres of oak/pine forest within Stand 26 of Compartment 78 on the Saco Ranger District of the White Mountain National Forest.

2.0 – Category of Exclusion and Environmental Analysis

Decisions may be categorically excluded from documentation in an environmental impact statement or environmental assessment when within a category identified by the U.S. Department of Agriculture in 7 CFR part 1b.3 or one of the categories identified by the Chief of the Forest Service in Forest Service Handbook (FSH) 1909.15 sections 31.1b or 31.2, and there are no extraordinary circumstances related to the decision that may result in a significant individual or cumulative environmental effect.

The Chase Hill Project may be categorically excluded from documentation in an Environmental Assessment or Environmental Impact Statement under FSH 1909.15, Chapter 31.2-12, Harvest of live trees not to exceed 70 acres, requiring no more than ½ mile of temporary road construction.

2.1 – Rationale for Category of Exclusion

I find that this project and decision meets all of the criteria for the category stated above (Category 12). After reviewing the analysis, I have determined that this decision will not result in any individual or cumulative environmental effects, and therefore no additional analyze in an Environmental Assessment (EA) or Environmental Impact Statement (EIS) are needed.

2.2 – Resource Conditions and Extraordinary Circumstances

The environmental analysis included site specific surveys for rare species, non-native invasive species, and cultural resources to determine if any extraordinary circumstances exist that could result in significant environmental effects.

2.2a – Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest service sensitive species.

A Biological Evaluation was conducted to evaluate the potential effects of this project on listed species and their habitats. All threatened, endangered, proposed, and sensitive species known or suspect within the White Mountain National Forest were considered for this evaluation. Five species were identified as being in the Project Area or potentially affected by the Proposed Action. The following table lists the five species and the effects determination made through the Biological Evaluation.

SPECIES	EFFECTS DETERMINATION
small whorled pogonia (*Isotria medeoloides*)	May affect small whorled pogonia in that it would likely benefit the species by improving suitable habitat characteristics.
eastern small-footed myotis (*Myotis leibeii*)	May impact individual eastern small-footed myotis but would not likely cause a trend toward federal listing or loss of viability.
northern bog lemming (Synaptomys *borealis sphagnicola*)	May impact individual eastern northern bog lemmings but would not likely cause a trend toward federal listing or loss of viability.
Bailey's sedge (*Carex baileyi*)	May impact individual plants of bailey's sedge but would not likely cause a trend toward federal listing or loss of viability.
nodding pogonia (*Triphora trianthophora*)	May impact individual plants of nodding pogonia but would not likely cause a trend toward federal listing or loss of viability.

The complete Biological Evaluation is available in the project record.

2.2b – Floodplains, Wetlands, or Municipal Watersheds

The Chase Hill Project Area is not located in a floodplain, according to New Hampshire state GIS Data (GRANIT, 2006).

There are no inventoried wetlands in the project area. Any wet/moist area encountered during implementation will be addressed through Forest Plan Standards and Guidelines, project Design Features and State Best Management Practices.

The Project Area does not fall within a Municipal Watershed.

2.2c – Congressionally Designated Areas

This project is not in or near any congressionally designated areas. The Sandwich Range Wilderness is the closest such area at 7.5 miles to the southwest. This project will not impact any congressionally designated area.

2.2d – Inventoried Roadless Areas

The project area is not located within an Inventoried Roadless Area (IRA) as identified in the Forest Plan and Final Environmental Impact Statement. The nearest IRA is the Table Mountain IRA which is approximately 1.5 miles to the northwest. This project will have no effect on any IRA.

2.2e – Research Natural Areas

The closest RNA to the project area is The Bowl, which is approximately 12 miles to the west. No RNA will be affected by this project.

2.2f – American Indians and Alaska Native Religious or Cultural Sites/ Archaeological Sites or Historic Properties or Areas

The project was surveyed for cultural and historic resources through on-site visits and examination of cultural resource data. This survey located two cultural resources within the project area, including a scatted stone wall and an unknown five by five meter depression. These findings are documented in a Cultural Resource Reconnaissance Report and available in the Project Record. Through coordination and consultation with the State Historic Preservation Office and the White Mountain National Forest Archeologist, protective measures have been recommended to eliminate potential adverse impacts on these cultural sites. Recommend protective measures are achieved for this project through Forest Plan Standards and Guidelines along with project specific Design Features (see Appendix A).

3.0 - Public Involvement

The White Mountain National Forest listed the Chase Hill project on the Schedule of Proposed Actions. Public involvement was conducted with a project scoping report and letter. These documents were mailed to 64 interested individuals and agencies, with six additional copies emailed, on July, 5th 2006. The documents were also posted on the White Mountain National Forest website on July 5th 2006. The legal notice was published in the Manchester Union Leader on July, 7th 2006.

Nine comment letters were received and several email and phone conversations took place with interested publics. All comments are appreciated and help to refine and analyze the project, as well as inform me as the decision maker.

See Appendix B for details regarding public comments and Forest Service Responses.

4.0 - Consistency with the Land and Resource Management Plan (Forest Plan) and other Applicable Laws

4.1 – Forest Plan

The project area is in Management Area (MA) 2.1 in the 2005 Forest Plan. The Proposed Action is consistent with Forest-wide and Management area direction. Standards and Guidelines in the Forest Plan are designed so that activities comply with applicable laws.

Management Area 2.1 direction includes:

- Provide high quality sawtimber and other timber products on a sustained yield basis.
- Provide a balanced mix of habitats for wildlife species.
- Provide opportunities for a full mix of recreation opportunities.
- Manage high-use or highly developed recreation areas to acceptable social and ecological standards; manage to retain some low-use and less developed areas.

The following Forest Plan Objectives and Standards and Guides (USDA, 2005) relate directly to project level objectives of enhancing small whorled pogonia habitat and maintaining the oak/pine forest type:

- Small Whorled Pogonia - Maintain or enhance habitat conditions around known occurrences, including consideration of vegetation management to increase light levels if needed (p. 1-9)
- Small Whorled Pogonia – S-1: Known small whorled pogonia colonies must be protected from human disturbances that may be detrimental to the colony. S-2: Evaluate projects with ground disturbing activities to determine the potential for small whorled pogonia habitat to occur within the project area. G-1: Known small whorled pogonia colonies should be evaluated to determine the potential for natural colonization of surrounding habitat that becomes functionally suitable overtime. Actions may be taken that would benefit existing colonies and encourage additional colonization, e.g., removing trees to reduce canopy cover allowing more sunlight to reach the forest floor. (p. 2-14)
- Wildlife Habitat Management – Maintain less common habitat types, such as aspen-birch and oak-pine, where ecologically feasible and desirable to provide for native and desired non-native wildlife and plant species. (p. 1-20)
- Wildlife Habitat Management – G-2: Oak-pine and hemlock habitats should be retained on the landscape, but not all existing stands need to be maintained. (p. 2-33)

4.2 – Other Applicable Laws

My decision will comply with all applicable laws and regulations, including:

- The National Forest Management Act
- Archaeological Resources Protection Act
- National Environmental Policy Act - as documented in this Decision Memo

5.0 – Implementation Date

If no appeal is filed this project may be implemented on, but not before, the fifth business day following the close of the appeal filing period (36 CFR 215.7 (b) (2) (VI)). Implementation of the entire project may extend over several years and is likely to take place in the summer/fall of 2006 or 2007.

6.0 - Administrative Review or Appeal Opportunities

This decision is subject to a higher level of administrative review or appeal pursuant to 36 CFR 215. A person has standing to file an appeal only if they submitted substantive comments during the 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. Appeals must be filed within 45 days of the date of legal notice of this decision in the Manchester Union Leader, Manchester, New Hampshire to:

USDA Forest Service
ATTN: Appeals Deciding Officer, Moat Project
626 East Wisconsin Avenue
Milwaukee, WI 53202

The office hours are: 8:00 am - 4:30 pm (Central Time), Monday through Friday, excluding holidays. A Notice of Appeal may be faxed to 414-944-3963, Attn: Appeals Deciding Officer, USDA Forest Service, Eastern Regional Office; or it may be electronically mailed to appeals-eastern-regional-office@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 appeal period is computed using calendar days, including Saturdays, Sundays, and Federal holidays. The day after the publication of this legal notice of the decision in the Manchester Union Leader is the first day of the appeal-filing period, and is the exclusive means for calculating the time to file an appeal. If you do not have access to the Union Leader, please call the Saco Ranger Station at 603-447-5448, ext. 122 (TTY 603-447-3121) for the published date. There will be no time extensions for appeals. If no appeal is filed this project may be implemented on, but not before, the fifth business day following the close of the appeal filing period (36 CFR 215.7 (b) (2) (VI)).

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

7.0 – Contact Persons

For more information, contact Terry Miller, District Ranger or Keith Konen, Project Leader at:

Saco Ranger District
White Mountain National Forest
33 Kancamagus Hwy
Conway, NH 03818
603-447-5448
(TTY) 603-447-3121
Email: twmiller@fs.fed.us
kkonen@fs.fed.us

8.0 – Signature and Date

I have concluded that this decision may be categorically excluded from documentation in an environmental impact statement or environmental assessment, as it is within one of the categories identified by the U.S. Department of Agriculture in 7 CFR part 1b.3 or one of the categories identified by the Chief of the Forest Service in Forest Service Handbook (FSH) 1909.15 sections 31.1b or 31.2, and there are no extraordinary circumstances related to the decision that may result in a significant individual or cumulative environmental effect. My conclusion is based on information presented in this document and the entirety of the Planning Record.

/S/ Terry Miller_____ __12/11/2006_____
TERRY MILLER DATE
District Ranger

References

Dey, D.C. and W.C. Parker. 1996. Regeneration of Red Oak (*Quercus rubra* L.) Using Shelterwood Systems: Ecophysiology, Silviculture and Management Recommendations. Ministry of Natural Resources, Ontario Forest Research Institute. Sault Ste. Marie, Ontario, Canada. 59 pp.

GRANIT, 2006. New Hampshire Geographically Referenced Analysis and Information Transfer System. www.granitmap.sr.unh.edu.

Lancaster, K.F. and W.B. Leak. 1978. A Silvicultural Guide for White Pine in the Northeast. USDA Forest Service. Gen. Tech. Rep. NE-41. Broomall, PA 13 pp.

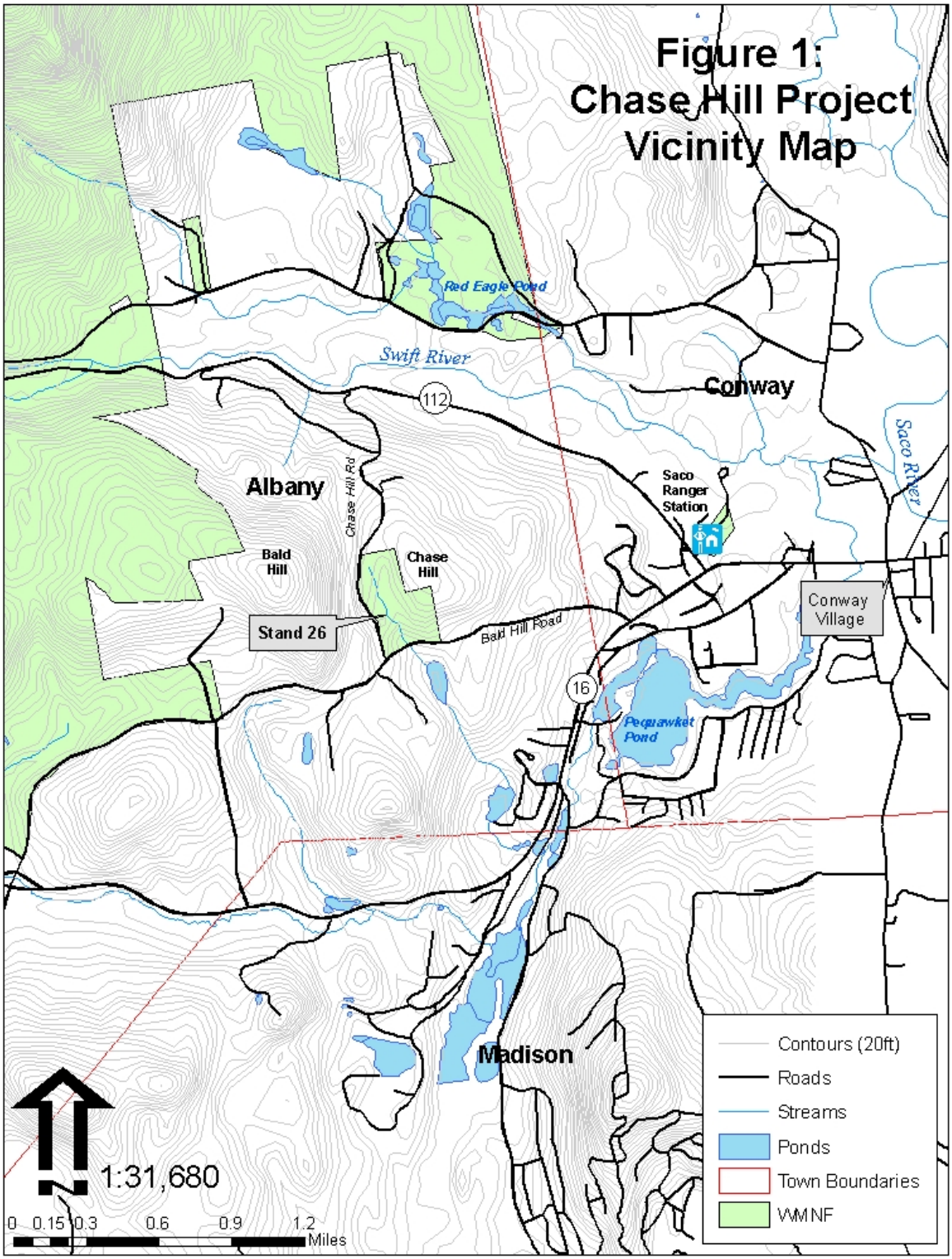
Sander, I.L. 1977. Manager's handbook for Oaks in the North Central States. USDA Forest Service. Gen. Tech. Rep. NC-37 St. Paul, MN. 35 pp.

USDA Forest Service. 2004 Forest Service Handbook 1909.15. Environmental Policy and Procedures Handbook. Ch. 30-31.

USDA Forest Service. 2005. Final Environmental Impact Statement, Land and Resource Management Plan. White Mountain National Forest. Laconia, NH.

USFWS. 1992. Small Whorled Pogonia(Isotria medeoloides) Recovery Plan. First Edition. US Fish and Wildlife Service, Region Five, Newton Corner, MA. 74 pp.

Figure 1 – Project Vicinity Map



Appendix A – Design Features: Chase Hill Project

In addition to the Forest-wide and Management Area 2.1 Standards and Guidelines in the Land and Resource Management Plan (USDA, 2005), the following Design Features are intended to address site specific conditions within the Project Area. Design Features for the Chase Hill Project include:

- Scenery Management – Apply marking paint facing away from town roads for 100 ft.

- Threatened and Endangered Species – No-entry areas have been identified around each known occurrences of small whorled pogonia. The Sale Administrator will work with the Forest Botanist and the timber sale purchaser to ensure that no equipment or human impact will occur within these areas. Forest Service personnel will mark designated timber in such a way which will not require felling trees into these no-entry areas.

- Threatened and Endangered Species – If new occurrences are located during harvest, operations will halt until a Forest Service representative can evaluate the site.

- Cultural Resources – The known stone wall and five by five meter depression will be protected through avoidance, placement of skid trails, and strategic marking.

- Cultural Resources – Trees with root systems that could potentially damage the stone wall if they were blown over from natural or harvest related events will be evaluated for removal.

- Cultural Resources – If new cultural sites are located during harvest, operations will halt until a Forest Service representative can evaluate the site.

Appendix B –
Public Comments and Forest Service Responses
Chase Hill Project

Commenter Number	Commenter Name	City/State	Comment Date
1	Thomas A. Linell	Hanover, NH	7/13/2006
2	Michael L. Cline (TMCC)	Conway, NH	7/7/2006
3	George Howard	Glen, NH	7/12/2006
4	Steve Wingate (NTOA)	Concord, NH	7/25/2006
5	Dana Rotman	Milford, CT	7/2006
6	Peter Benson	Jackson, NH	7/20/2006
7	Robert Richardson	Walpole, NH	7/13/2006
8	Frank Robey	Stoneham, ME	7/25/2006
9	Frank Wolfe	Conway, NH	7/10/2006

Commenter # 1	
Comment	FS Response
Comment 1.1 - Many mountain bikers are not interested in communing with nature. Some go into the woods on their eroding machines, only to indulge in illegal drugs in relative privacy. The Forest Service, in the WMNF, rather than recognize this truth, has decided (outside the NEPA process) to indulge mountain bikers with a nihilistic attitude. I hope they will not do that in this project.	*FS Response 1.1* - The WMNF Land and Resource Management Plan (Forest Plan) addresses the issue of mountain bike use, and Forest-wide management direction relating to mountain bike use states that forest development tails and travel corridors are open to mountain bikes unless closed to that use. Cross-country mountain bike travel outside those areas is prohibited. We do not anticipate an increase in mountain bike activity within the project area following this project.
Comment 1.2 - The Forest Service scoping letter does not describe how the logs are to be extracted from the Chase Hill tract.	*FS Response 1.2* – It is likely logs will be transported from the stump to a landing location by conventional ground based logging systems. The logs will then be transported off-site from the landing by log truck.
Comment 1.3 - Any skid roads, or any linear cuts made, should not cross the stream illustrated on the scoping letter map	*FS Response 1.3* – Based on site specific analysis, it was determined that a single landing location was optimal for this project. A single landing will require crossing the stream located in the stand. State Best Management Practices and Forest Standards and Guidelines will be met and applied to this crossing to mitigate any possible adverse effects.
Comment 1.4 - no “hypotenuse" road should be cut on the tract linking Bald Hill Road to Chase Hill Road. It is essential to avoid creating a " short cut" on the tract, so that the small whorled pogonia does not have to suffer increased visitation from the public.	*FS Response 1.4* – No new road construction is planned under this project.

Comment 1.5 – the scoping letter does not state how the plant is to be protected.	*FS Response 1.5* – In coordination with the Forest Botanist, known plants will be protected through avoidance (buffers around known populations) and strategic tree extraction.
Comment 1.6 - Before the logging commences, logs and boulders which are suitable for closing and obscuring the skid road junctions with Town roads, should be identified and set aside. Temporary closure measures should be used each night, when logging ends. To ensure minimal public visitation to the tract, during logging, the logging should take place when the hours of sunlight are short.	*FS Response 1.6* – Access routes created during this project will be closed following implementation of the proposed action. Temporary closure measures are not planned while implementation is on-going. Harvest operations will be conducted during the time of year that will best achieve the objectives of the project. The Timber Sale Administrator and Law Enforcement Officer frequently visit active timber sales and monitor for illegal activity.
Comment 1.7 - The plants will be better off, if the Forest Service does not impose any Forest Service signs on the property after the logging is complete.	*FS Response 1.7* – No new signage is planned under this project. Routine boundary line maintenance may occur in conjunction with this project to insure boundaries are clear and accurate. This is likely to involve clearing and re-blazing the boundary line.

Commenter # 2	
Comment	FS Response
Comment 2.1 - The very large pine, well-developed understory, and large amount of coarse woody material on the subject parcel are not repeated in the area. I would not favor harvesting that decreases these values unless it was done specifically to enhance the small whorled pogonia population.	*FS Response 2.1* – Observations of USFS lands within one mile of the project area exhibit stand structure and composition very similar to the Chase Hill site. One of the primary objectives of harvesting in the project area is to enhance small whorled pogonia habitat. Following implementation of the proposed action many of the structural and compositional values will remain present in the project area.
Comment 2.2 - Only a very small portion of the parcel supports or is likely to support viable populations of the small whorled pogonia. That is the only area to which harvesting should be directed. The rest of the parcel is too important as older forest stand habitat. If the goal is small whorled pogonia habitat enhancement, harvesting should be limited to existing and potential habitat.	*FS Response 2.2* - Suitable habitat for small whorled pogonia is non-descript mixed oak/pine woodland. Hemlock and paper birch are also significant components of suitable habitat. The exact habitat requirements for this species are difficult to document beyond these wide parameters. These species occur throughout this parcel. Although *Isotria* currently occupies a small portion of this parcel, predictive models list a large percentage of the overall parcel as potential habitat.
Comment 2.3 - I strongly encourage making the forest stand prescription public.	*FS Response 2.3* – The stand prescription is available to the public upon request.
Comment 2.4 - What silvicultural system will be employed?	*FS Response 2.4* – A Preparatory Shelterwood harvest is the treatment prescribed.
Comment 2.5 - What is the current basal area, species composition, mean diameter, etc.?	*FS Response 2.5* –The current avg. basal area of trees >5” is 147 sqft/ac. The overstory species composition is red oak (32%), white pine (24%), eastern hemlock (15%), American beech (8%), red maple (7%), red pine (5%), paper birch (3%), red spruce (2%), yellow birch (2%), and less than 1% of white ash and quaking aspen. The mean diameter of tress >5” is 11.7”.

Comment 2.6 - What is the target basal area after harvest?	*FS Response 2.6* - The target residual basal area following the treatment is 90-100 sqft/ac.
Comment 2.7 - What tree species will be favored and targeted for removal?	*FS Response 2.7* - White pine, red oak, and red pine will be favored for retention and other species will be targeted for removal.
Comment 2.8 - What kind of machines will be used?	*FS Response 2.8* – Conventional logging equipment is expected to be used.
Comment 2.9 - How much of the parcel will be affected?	*FS Response 2.9* - Aside from areas which will buffer the known populations of small whorled pogonia, the entire stand will be treated.
Comment 2.10 – I favor the action to enhance populations of small whorled pogonia, but confined only to areas offering viable high-quality small whorled pogonia habitat.	*FS Response 2.10* - Support for project – see FS response 2.2

Commenter # 3	
Comment	FS Response
Comment 3.1 - I suggest you take full advantage of FSH 1909.15 Chapter 31.12 and harvest the timber without analyzing it into oblivion.	*FS Response 3.1* – Analysis of this project will follow direction found in FSH 1909.15.

Commenter # 4	
Comment	FS Response
Comment 4.1 - NHTOA supports the Chase Hill Project. It is an excellent example of multiple uses that satisfies many needs. Reducing stocking will benefit the threatened, small whorled pogonia at no cost to the public, while supplying valuable and renewable wood products to the New Hampshire economy.	*FS Response 4.1* – Thank you for your comments. All comments received help to refine and analyze the project, as well as inform the decision maker.
Comment 4.2 - We also agree that this is the kind of project that is suited for a categorical exclusion. The effects of the proposed action are minor and well researched. They fall within established guidelines for this kind of analysis.	*FS Response 4.2* – See FS Response 3.1.

Commenter #5	
Comment	FS Response
Comment 5.1 – Please forward this to the person that might be interested in comments on the logging of a small tract up the hill from the Kanc in the Darby Field-Tin Mountain barn area. I believe this is a 60 acre wooded area and I have no real concerns about this.	*FS Response 5.1* - Thank you for your comments. All comments received help to refine and analyze the project, as well as inform the decision maker.
Comment 5.2 – Have there been any definite steps adopted that are now to be followed on USFS land that abut private properties?	*FS Response 5.2* - It is agency policy to contact individuals and organizations whose property abuts proposed projects areas.

Comment 5.3 – I also have seen and read some about logging with Draft Horses by individuals here in the northeast…and wondered if this might be considered for this area.	*FS Response 5.3* – Horse logging may be applicable on USFS land, but this project is planned for conventional logging systems which could better achieve the project objectives by increase soil scarification and control of the logs during the skidding process.
Comment 5.4 – Could this logging project if utilizing horses be tied into an educational logging effort and possibly with Tin Mountain folks and one of their programs? This might be a nice opportunity to educate and raise funds for Tin Mountain as well as get the logs out for sale by the USFS.	*FS Response 5.4* – As stated, horse logging is not planned for this project. Further, no specific educational programs are proposed under this project. Any educational programs planned by Tin Mountain on USFS land would require coordination with the WMNF special uses permit administrator and conservation education coordinator.

Commenter # 6	
Comment	FS Response
Comment 6.1 – I think the WMNF is on the right track for management of *isotria* on the Chase Hill site. The full results of the management are not known on some of the sites to date is not known due to the ephemeral nature of *isotria*, and the results for TNC have been somewhat disappointing in terms of stem regeneration so far. That being said, I think it is a good risk to take for this species.	*FS Response 6.1* - Support for project – Recent unpublished results of habitat manipulation experiments at other sites of *Isotria* in NH conducted by the United States Fish and Wildlife and the New England Wild Flower Society indicate a highly positive correlation between timber management/canopy thinning and the reproductive status, population numbers, and vigor of *Isotria*.
Comment 6.2 – Comments I would make are that I assume that this management would take place in the winter with adequate (18 inches) snow cover to minimize any ground disturbance to the site	*FS Response 6.2* – Management operations are planned for a snow-free season. This has multiple objectives, one of which is scarification of the soil for potential small whorled pogonia recruitment. In coordination with the Forest Botanist, known plants will be protected through avoidance (buffers around known populations) and strategic tree extraction.
Comment 6.3 – I would also recommend leaving a small control area of untreated cover (20%) on the site to account for any unintended consequences of this management due to the long term uncertainty of the outcome of the treatment.	*FS Response 6.3* - Currently known Isotria individuals will be protected by placement of buffers around occurrences. No harvest or ground disturbance will take place within these buffers. These areas will act as untreated control sites.

Commenter # 7	
Comment	FS Response
Comment 7.1 – The Forest Service should aggressively pursue the goals and objectives of the Forest Plan by proceeding with implementation of appropriate conservation and habitat improvement initiatives.	*FS Response 7.1* - Thank you for your comments. All comments received help to refine and analyze the project, as well as inform the decision maker.
Comment 7.2 – It should not be necessary to poll the public regarding a project of this type in that: 1.) The public in concert with the FS and various organizations spent nearly a decade developing the 2005 Forest Plan. 2.) The Forest Plan goals and objectives are clear and succinct (see pages 1-8&9). 3.) The FS has the formally schooled biologists who	*FS Response 7.2* – In compliance with the National Environmental Policy Act (NEPA), it is required that public input be solicited for a project of this nature.

are in a much better position than the general public to make a judgment regarding desired habitat. 4.) For these reasons this exercise is a waste of FS resources and tax payer dollars.	
Comment 7.3 – I am in favor of aggressive implementation of the Forest Plan and am in full support of the proposed Chase Hill Project.	*FS Response 7.3* – See FS Response 7.1.

Commenter # 8	
Comment	FS Response
Comment 8.1 - The WMNF notification of projects does not seem to be working correctly. I have asked to be notified of any projects Forest-wide and wasn't notified about this one. I signed up on the email notification list a couple months ago and wasn't sent an email that this project was available for comments and just happened to see it when I went out looking for new projects.	*FS Response 8.1* – Your name was included in the mailing list for this project. The FS attempted to contact you about this project through email, but apparently this was unsuccessful. We will make every attempt to successfully contact you for future projects.
Comment 8.2 - What studies were used to determine "Reducing the stand density would…enhance habitat for the federally listed plant."?	*FS Response 8.2* - See FS response 6.1
Comment 8.3 - I have looked at several papers from the US Fish and Wildlife and haven't found any reference to that. The paper here http://www.fws.gov/Endangered/i/q/saq1q.html says "MANAGEMENT AND PROTECTION: Management needs are unknown, but some habitat manipulation, as determined by future research, may be necessary to maintain certain populations." I couldn't find any papers that said timber harvest had enhanced the habitat.	*FS Response 8.3* - See FS response 6.1
Comment 8.4 - This paper http://www.gsrcorp.com/tes/ISME2/isme_text.html seems to indicate, at least in some locations, that the pogonia likes a white pine/hemlock stand "The author observed the pictured plants…growing in a mixed hardwood-coniferous forest dominated by evergreen species including white pine and hemlock"	*FS Response 8.4* - These conditions currently exist on the parcel to be treated and will continue to persist on the site following treatment.
Comment 8.5 - This paper http://ecos.fws.gov/docs/recovery-plans/1992/921113b.pdf says "Various second growth forest types in which *Isotria medeolodies* occurs in its primary range include: mixed deciduous/white pine or hemlock forests in New England" (page 24) it also says "Colonies may form in more ephemeral types of canopy breaks, such as those caused by wind throws and dead standing trees but may go dormant or die out much more quickly than colonies in more stable habitats." (page 27)	*FS Response 8.5* - Recent unpublished results of habitat manipulation experiments at other sites of *Isotria* in NH conducted by the United States Fish and Wildlife and the New England Wild Flower Society indicate a highly positive correlation between timber management/canopy thinning and the reproductive status, population numbers, and vigor of *Isotria*. These investigations indicate that canopy gaps caused by timber activities or natural processes such as windthrow may be necessary to ensure the long term survival of a population or meta-population. Plants arising in these areas appear not to be seedlings, but dormant adult plants. Arising follow a successional change, they produce

	large amounts of seed that is dispersed into surrounding suitable short-term and long-term habitat. Ultimately natural succession of the forest to a closed canopy system may cause many of these individuals to return dormancy.
Comment 8.6 - How are you going to protect the existing population of pogonia during the timber harvest?	*FS Response 8.6* - In coordination with the Forest Botanist, known plants will be protected through avoidance (buffers around known populations) and strategic tree extraction.
Comment 8.7 - What is the current basal area on the site and what is going to be the basal area after harvest?	*FS Response 8.7* - The current avg. basal area of trees >5" is 147 sqft/ac. The target residual basal area following the treatment is 90-100 sqft/ac.
Comment 8.8 - How many board feet of timber do you plan on removing?	*FS Response 8.8* – Based on the prescription, the acreage of the project, and growth and yield modeling approximately 350 MBF will be harvested during this project.
Comment 8.9 - How will you determine if the stand density reduction was "successful" in enhancing the habitat for small whorled pogonia?	*FS Response 8.9* – A monitoring plan has been developed for this project by the WMNF Botanist. The data collected from this monitoring plan will be compared to historical population data that has been collected since 1994.

Commenter # 9	
Comment	FS Response
Comment 9.1 – I agree fully with both your Purpose and Need and the Proposed Action. Although this stand is isolated from the rest of the WMNF that is little reason for it not to be a working forest	*FS Response 9.1*- Thank you for your comments. All comments received help to refine and analyze the project, as well as inform the decision maker.
Comment 9.2 – I saw nothing about wildfire suppression it is my hope that you will give proper attention to this facet of forest management since there are some major buildings in the area, the least of which are the Darby Field Inn and the Tin Mountain Complex.	*FS Response 9.2* – No prescribed fire is planned under this project, and this project is not expected to increase the risks of wildfire in the project area. Consistent with Forest Plan direction, a wildfire in the project area will be addressed with an appropriate suppression response.