



United States
Department of
Agriculture

Forest
Service

White Mountain National Forest
Saco Ranger District

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Date: January 20, 2006

Friend of the White Mountains

Dear Friend,

This letter is written to invite you to provide comments on the proposed actions described in the attached Than Forest Resource Management Project public information package. The document is a proposal for forest and resource management activities on National Forest land in the Wildcat Brook drainage, and east of the Ellis River in the White Mountain National Forest near the town of Jackson, NH.

Proposed actions include timber harvest; improvements to roads; improvements to recreation opportunities; wildlife and aquatic habitat improvements; timber stand improvements; and streamside stabilization projects. Details of the proposed project and analysis are described in the attached 30-day Comment Package. The full environmental analysis of effects is currently ongoing and the completed EA will include a detailed analysis and disclosure of these effects, which is the basis for the Decision Notice and Finding of No Significant Impact by the Responsible Official.

Information contained in this packet includes:

- Cover Sheet & Document Summary
- Background & Description of Project Area
- Desired Condition based on White Mountain National Forest Plan
- Purpose and Need for this Action (reasons for the proposal)
- Proposed Action and Alternatives
- Connected Actions Under All Alternatives
- Issues Used to Develop Alternatives and Other Issues
- Alternatives Considered and Eliminated from Detailed Study
- Maps
- Summary Table of Environmental Consequences

Appendix:

- Mitigation Measures specific to this Project
- How to Comment
- Where You Are in the Planning Process
- Glossary of Terms

The Forest Service has prepared this 30-day Comment Package in order to invite your comments, ideas, and concerns. The document describes the Proposed Action and alternatives, the reasons for



making this proposal, the known issues, and some of the expected effects. It is being sent to 210 individuals, organizations, and government agencies who have indicated an interest in participating in project planning on the Saco Ranger District. An announcement of the 30-day comment period is being published in the *Conway Daily Sun*, and the *Manchester Union Leader*. This document is also posted on our White Mountain National Forest web page (www.fs.fed.us/r9/white). The 30-day comment period begins on the day of publication in the newspaper of record, the *Manchester Union Leader*.

In past years we asked you to comment twice, once during project development, called the scoping period; and again after completion of the EA, called the 30-day comment period. Revised regulations (36 CFR 215) issued on June 4, 2003 directed the Forest Service to combine the two comment periods at a point in the process when we can present the public with a sufficiently detailed project proposal to allow them to identify potential issues or ideas. With this process, you have sufficient information to provide site specific substantive comments, and your input can be most effective. Chapter 1, Section J (Public Involvement), and Appendices B and C contain specific instructions on how to submit your comments.

Substantive comments received during this single 30-day comment period will be considered by the Responsible Official. Substantive comments are those that are within the scope of the proposed action, specific to the proposed action, have a direct relationship to the proposed action, and include supporting reasons for the Responsible Official to consider (36 CFR 215.2). Detailed instructions on *How To Comment* can be found in Appendix B of the attached Public Comment Package. If you wish to submit comments regarding the proposed project, please follow the guidelines listed there.

After the comment period is closed, responses will be considered and may be used to revise alternatives, develop new alternatives, or make modifications to the project. An Environmental Assessment will then be finalized to incorporate any changes based on public comments and to disclose the pertinent details of the project analysis. Individuals commenting during the 30-day comment period are asked to indicate if they would like the final Environmental Assessment along with a copy of the Decision Notice. Further details about the comment period, mailing addresses, and appeal rights are found in Appendix B of this Comment Package.

Again, this is the only public comment period for this project. For more information, you may contact Rod Wilson (Ext. 120) or me (Ext. 102) at the address and phone number listed in the letterhead. Thank you for your interest.

Sincerely,

/S/ TERRY MILLER

TERRY MILLER
District Ranger



United States
Department of
Agriculture

Forest
Service

January 2006



THAN FOREST RESOURCE MANAGEMENT PROJECT

Town of Jackson

Carroll County, New Hampshire

Public Comment Package



For Information Contact: Rod Wilson
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This document is available in large print.

Contact the White Mountain National Forest Supervisor's Office 1-603-528-8721

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Than Forest Resource Management Project

Public Comment Package - Summary

The Saco Ranger District of the White Mountain National Forest is proposing the following management activities under the Proposed Action or Alternatives in the Than Project:

FOREST MANAGEMENT

- Even-aged and uneven-aged timber management on up to 1036 acres, producing approximately 5.0 million board feet of forest products;
- Place six temporary skidder bridges over perennial streams to keep equipment and logs out of brooks during skidding;
- Use six existing landings, and construct two new landings;
- To insure regeneration objectives are met, pre-commercial release of existing regeneration on up to 100 acres in group selection and single tree selection units may be implemented;

TRANSPORTATION SYSTEM

- Road maintenance and/or additional rock surfacing on up to 3.0 miles of existing roads;
- Road reconstruction on Forest Roads 512 (1.8 miles), 5030 (0.5 miles), and the end of Forest Road 233 (0.36 miles), to allow for summer and fall harvest activities;
- Reconstruction of 1500 feet of Forest Road 5555 to allow for three-season use, including permanent abutments for a temporary bridge crossing of the Ellis River to access units 29-33;
- Reconstruct/construct a total of a half mile of three-season road with Right-of-Way (ROW) across Jacksons' Prospect Farm onto National Forest to access Units 18 – 20;

WILDLIFE & AQUATIC HABITAT IMPROVEMENTS

- Place woody debris using chainsaws and winches (ie. trees felled to create pools) on the upper sections of Bog Brook, Wildcat Brook, Davis Brook and Wildcat River to improve aquatic habitat;
- Remove delapidated structures near the origin of Bog Brook Trail and convert this site into a 4 acre wildlife opening with access to allow for periodic opening maintenance;

RECREATION MANAGEMENT

- Move Bog Brook Trailhead onto National Forest land or Jackson Town lands with an Easement, including the possibility of a 750 foot connecting trail to Bog Brook Trail;
- Relocate 500 feet of Wildcat River Trail above FSR 233 to eliminate erosion on the trail;
- Provide for a future nordic trail from the end of Boggy Brook Trail (Wildcat Brook Road - NFSR 233) to East Pasture Trail, a distance of approximately one mile (Alternative 3).

Than Project is located in the Town of Jackson, Carroll County, New Hampshire, on the Saco Ranger District of the White Mountain National Forest. Ellis River, Wildcat River and Wildcat, Bog, Davis and Than Brooks are the primary drainages in the Analysis Area. Several small unnamed tributaries are also included in the Analysis Area. The Wildcat River HMU (12,079 acres) and the east portion of the Ellis River HMU (2,120 acres) comprise the analysis area.

The following list describes the “need for change” and opportunities identified for the Than Analysis Area that would implement the White Mountain National Forest Plan.

1. There is a need to increase acres of early successional habitat.
2. There is a need to manage mature and overmature hardwood stands, creating a more desirable stocking of species, sizes, and quality of hardwood trees, while providing forest products.
3. There is a need to increase softwood component and reduce overall stocking in mixedwood stands.
4. There is a need to provide public parking for Bog Brook Trail, and additional hiking or Nordic access to existing trails.
5. There is a need to implement stream and trail rehabilitation projects within the project area.

The Proposed Action or Alternatives may result in the following effects:

- Season long use restriction on Forest Road 233 (Boggy Brook Nordic Trail) and the graveled portion of Carter Notch road, and for Alternative 2 on Forest Roads 233 and 512 (Quail Trail);
- Short-term localized sedimentation may occur at temporary stream crossings and in conjunction with proposed road and bridge construction sites;
- Temporary openings (clearcuts) visible from identified viewpoints;
- A reduction of approximately 184 acres of mature hardwood forest resulting in creation of early successional habitat and associated benefits to wildlife dependent on this habitat;
- Release of existing advanced softwood regeneration in single tree selection and thin units;
- Minor, localized, and short-term direct and indirect effects to water quality and water quantity from harvest activities and from road reconstruction and maintenance; and from watershed *rehabilitation* projects on Bog Brook, Wildcat Brook, Davis Brook and Wildcat River;
- Road maintenance, improved road surfaces, and hiking and Nordic trail improvements;
- Permanent bridge abutments at one location along the Ellis River (to units 29 – 33).
- Temporary displacement of wildlife during implementation, along with creation of diverse forested habitats and openings;
- Removal of up to 5.0 million board feet of timber, providing jobs in harvesting and manufacturing;
- Improved health and growth of residual trees in treated stands.
- Improved recreation opportunities and trailhead parking.

At the conclusion of the 30-day public comment period, a final Environmental Assessment will be completed. Based on public comments and the final EA, the deciding officer (Saco District Ranger) will then make the following decisions and provide reasons:

- Is the range of alternatives adequate to address public issues, interdisciplinary team concerns, and to meet the Purpose and Need for Action, or are more alternatives needed?
- Which of the alternatives best addresses relevant issues for this project?
- Would the Decision to implement an Alternative pose any significant environmental impact that would require an environmental impact statement?
- Does the decision to implement an Alternative meet applicable federal, state, and local laws and policies, including consistency with the Forest Plan?
- Do the proposed mitigation measures meet Forest Plan Standards and Guidelines?

Than Forest Resource Management Project

Table of Contents

Chapter 1. Purpose and Need for Action	7
A. Introduction and Document Structure.....	7
B. Tiering to the 2005 Final Environmental Impact Statement for the White Mountain National Forest Land and Resource Management Plan (FEIS).....	8
C. Background	10
D. Description of Than Analysis Area	11
E. Purpose of the Action.....	14
F. Need for the Action	14
G. Proposed Action.....	16
H. Connected Actions.....	17
I. Decision Framework	22
J. Public Involvement	22
K. Applicable Regulatory Requirements and Required Coordination	23
L. Preliminary Issues Used to Develop Alternatives.....	24
M. Other Issues Brought Forward by the Forest Service and the public.....	25
Chapter 2 - Alternatives.....	26
A. Formulation of Alternatives.....	26
B. Description of Alternatives	26
Alternative 1 - No Action Alternative	26
Alternative 2 –Proposed Action.....	27
Alternative 3	32
C. Connected Actions Under All Action Alternatives.....	37
D. Project Alternatives Considered and Deleted from Further Study	37
E. Comparison of Alternatives	38
Appendix A -Project Mitigations.....	40
Appendix B - How to Comment on Than Project	41
Appendix C.....	42
Where this Project is in the Forest Service NEPA Process	42
Appendix D - Glossary	43

Public Comment Package

Than Project

Chapter 1. Purpose and Need for Action

A. Introduction and Document Structure

The Forest Service has prepared this 30-day Comment Package in compliance with the National Environmental Policy Act (NEPA) and other relevant federal laws and regulations as part of the Environmental Assessment process for Than Project. This Comment Package discloses the actions and connected actions, issues, mitigations, Alternatives to the proposed action, and a summary of the direct, indirect, and cumulative environmental impacts that would result under each of the alternatives. The document is organized into three parts:

- Chapter 1: Purpose and Need for Action: This section includes information on the history of the project proposal, the purpose and need for the project, and the agency's proposal for achieving that purpose and need. This section also details other pertinent information related to this project.
- Chapter 2: Alternatives including the Proposed Action: This section provides a more detailed description of the agency's proposed action and alternatives for achieving the stated purpose. These alternatives were developed based on anticipated and known public and agency issues. The Chapter also includes Connected Actions under All Action Alternatives, Alternatives Considered and Deleted from Further Study, and a Comparison of Alternatives Summary Table. The Summary Table briefly shows the environmental effects (Management Indicators) of implementing the No Action Alternative, the Proposed Action (Alternative 2), and Alternative 3.
- Appendices: The appendices provide more detailed information useful in understanding this project, where we are in the analysis process, and what to do to provide input during the 30-day public comment period for which this Comment Package is prepared

Additional documentation regarding effects to the physical and biological resources may be found in the project planning record located at the Saco Ranger District Office, Conway, New Hampshire.

This Comment Package is not the completed Environmental Assessment (EA). It includes Chapters 1 and 2 of the EA and a summary of environmental effects for you to review. The full environmental analysis of effects is currently ongoing and the completed EA will include a detailed analysis and disclosure of these effects, which is the basis for the Decision Notice and Finding of No Significant Impact by the Responsible Official.

In past years we asked you to comment twice, once during project development, called the scoping period; and again after completion of the EA, called the 30-day comment period. Revised regulations (36 CFR 215) issued on June 4, 2003 directed the Forest Service to combine the two comment periods at a point in the process when we can present the public with a sufficiently detailed project proposal to allow them to identify potential issues or ideas. With this process, you have sufficient information to provide site specific substantive comments, and your input can be most effective. Chapter 1, Section J (Public Involvement), and Appendices B and C contain specific instructions on how to submit your comments.

B. Tiering to the 2005 Final Environmental Impact Statement for the White Mountain National Forest Land and Resource Management Plan (FEIS)

The analysis for this project is tiered to the Final Environmental Impact Statement and Record of Decision (ROD) for the 2005 White Mountain National Forest (WMNF) Land and Resource Management. (USDA-Forest Service, 2005b, FEIS)

Tiering is described in Forest Service Handbook (FSH) 1909.15 as a process of summarizing and incorporating by reference from other environmental documents of broader scope to eliminate repetitive discussions of the same issues and to focus on the actual issues ripe for decision. (USDA-Forest Service, 1992, FSH 1909.15, Chapter 42.1) The Handbook specifically notes that the EIS for a land and resource management plan is an example of a “broad” EIS prepared for a program or policy statement. (USDA-Forest Service, 1992, FSH 1909.15, Chapter 22.31)

The Land and Resource Management Plan (also called the Forest Plan) is the “principal tool for preserving, protecting and managing the resources that comprise the White Mountain National Forest, while at the same time making those resources available to the public for a variety of uses.” (USDA-Forest Service, 2005b, FEIS) The Forest Plan is a programmatic document that implements the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), as amended by the National Forest Management Act of 1976 (NFMA). The Forest Plan implements NFMA by providing “for diversity of plant and animal communities based on the suitability and capability of the (White Mountain National Forest) in order to meet overall multiple-use objectives and within the multiple-use objectives of a land management plan.” (16 USC 1604(g)(3)(B))

The Forest Plan sets management direction for the White Mountain National Forest through the establishment of short term (10-15 years) and long-range goals and objectives. It prescribes the standards, practices, and the approximate timing and vicinity of potential actions that are necessary to achieve these goals and objectives. The Forest Plan prescribes monitoring and evaluation needs to ensure that direction is carried out, measures quality and quantity of actual operations against predicted outputs and effects, and forms the basis for implementing revisions.

Of the 796,700 acres comprising the White Mountain National Forest, approximately 358,000 acres are allocated to General Forest Management (Management Area 2.1) in the 2005 LRMP. However, only a portion of the MA 2.1 lands are actually available for management through timber harvest, as approximately 281,000 acres Forest-wide are considered “suitable lands” where vegetative management is permitted through the use of commercial timber harvesting. Lands in MA 2.1 that are not “suitable” for timber harvest may include wetlands, reserve areas, riparian management zones, steep terrain, or areas that are otherwise inaccessible. These lands, which represent a variety of habitat types, will generally grow unmanaged into old forest habitat. Suitable lands are typically in lower elevations (below 2,500 feet) where timber management is used to maintain a variety of wildlife habitat conditions and generates timber products. The acres proposed for timber harvest in the Than Vegetation Management Project are part of this “suitable” land base.

In addition to allocating lands, the Forest Plan provides a strategy to manage well-distributed and suitable wildlife habitat for maintaining “viable populations of existing native and desired non-native vertebrate species” (36 CFR 219.6). The Forest Plan has established blocks of National Forest land called “Habitat Management Units” (HMUs) in which “habitat composition and age class objectives (are) established to help ensure that habitats are well-distributed across the forest and provide a framework for analyzing project impacts to wildlife habitat at a local scale. Blocks vary in size from about 6,000-49,000 acres, and

contain a variety of habitat types and land in a mix of Management Areas.” (USDA-Forest Service, 2005a, LRMP)

HMUs were first defined in the 1986 LRMP, and have been the cornerstone of vegetation management on the White Mountain National Forest for the past 19 years. The 2005 LRMP has made some key changes in both the size of HMUs and the objectives by which HMUs are managed.

- **The 1986 LRMP** established each HMU on the basis that it would encompass at least 4,000 acres of National Forest lands designated for “General Forest Management” (Management Area 2.1 and 3.1 lands on which vegetation is managed on a sustained yield basis).
- **The 2005 LRMP** has expanded HMU boundaries to larger, more ecologically-based units, based on Ecological Land Types, Land Type Associations, watersheds, topography or other key landscape and/or geographical features. The expanded HMUs range in size from 6,000 to 49,000 National Forest acres, and may have any amount of lands designated for General Forest Management.

Habitat management objectives must be developed for each individual HMU, and these objectives must be “based on land capability, current condition in the HMU, and landscape needs to meet management area objectives”. (USDA-Forest Service, 2005a, LRMP, p 2-33) These habitat management objectives must be developed for an individual HMU prior to implementation of vegetative management in that HMU.

The Desired Future Condition (DFC) of an HMU is based on the capability of the land specific to the HMU, and is intended to contribute to a diversity of habitats across the National Forest, including various forest types, age classes and non-forested habitats. (USDA-Forest Service, 2005a, LRMP, p 1-20) Capability is determined by the Ecological Land Types within the HMU landbase. An Ecological Land Type (ELT) can include an area of a few hundred to a few thousand acres with a well-known succession of forest species on unique soil materials; and ELT classification is based on geomorphic history, nature of soil substrata, and potential natural vegetation. Maintaining a diversity of habitats is essential to meeting the life cycle needs for wildlife species inhabiting the National Forest (DeGraaf et al. 1992, DeGraaf and Yamasaki 2001). Examples of habitat types include “northern hardwood”, “spruce-fir” and “aspen-paper birch”. Age classes are based on stages of natural forest succession, ranging from “regeneration” (0-9 years) to “old” (beyond the age when growth begins to decline, typically the traditional rotation age for each forest type). Wildlife species that require or otherwise utilize “early-successional” openings will benefit from the availability of forest openings in the regeneration phase of growth, as well as small stands that are maintained as permanent wildlife openings. The same correlation is true of mature and old stands for those species that require or otherwise utilize “late-successional” vegetation. Early-successional vegetation is characterized most often by dense, ground level plant cover in areas open to direct sunlight. Late-successional vegetation is more typically characterized by large, mature woody vegetation with a closed canopy (foliage) that blocks sunlight from reaching the ground.

C. Background

The **Analysis Area** for Than Project includes Wildcat River Habitat Management Unit (HMU) and the east half of the Ellis River HMU. Wildcat River HMU is approximately 12,079 acres in size. The east portion of Ellis River HMU is approximately 2,120 acres in size. Vegetation management activities are prescribed in MA 2.1 lands within these HMUs to achieve the goals and objectives of the White Mountain National Forest Land and Resource Management Plan (LRMP, 2005).

The **Project Area** contains approximately 1036 acres of stand treatments on National Forest land within Wildcat River HMU and the (east portion of) the Ellis River HMU. The **Project Area** is that portion of the Analysis Area where proposed vegetative management and connected actions (activities involving roads, landings, watershed improvements and trails) will occur. Wildlife habitat improvement treatments and riparian area improvement projects, as well as the proposed recreation improvement projects all lie within Jackson Township, in Carroll County, New Hampshire.

Ellis River, Wildcat River, and Wildcat, Bog, Davis and Than Brooks are the primary drainages in the Analysis Area. Several small unnamed tributaries are also included in the Analysis Area.

Timber management activities on National Forest land and logging on nearby private land is historical in the area and led to the construction of the existing road systems within and surrounding the Project Area. Evidence of past logging since the 1940's includes truck roads and skid roads, thinned stands, and young pole stands. Evidence of these activities can be observed in much of the Analysis Area.

Marsh Brook sale was planned in the early 1990s and was implemented from 1991 to 1996. Marsh Brook Sale constructed a total of 1.3 miles of improved winter road through Town of Jackson property (NFSR 512) to improve access to the area for logging. Two million board feet of timber was harvested from a 51 acre group selection and seven clearcuts totaling 123 acres. NFSR 512 connected Forest Road 233 (Carter Notch Road) with existing roads used for harvest since the 1950's in the vicinity of Marsh Brook and Spruce Mountain.

Under the Forest Plan that pre-dates 1986, in the years from 1984 to 1987, Wildcat Timber Sale re-constructed NFSR 233 and clearcut 113 acres. During the same period (1982-1986) several stands totaling approximately 800 acres were thinned and six stands totaling 206 acres were clearcut, primarily in the Wildcat Brook drainage.

In the east portion of the Ellis River HMU, across from the Rocky Branch Trailhead, three clearcut units totaling 85 acres were logged in 1974 - 1978. The Ellis River Crossing road, a temporary truck bridge across the Ellis River, and a landing were constructed to access this isolated area east of the Ellis River. That access is the same as proposed for this project. An additional sale (Ellis River Sale) slated to use the Ellis River Crossing was sold in the early 1990's. It and proposed 42 acres of clearcutting and one thinning unit, but the sale was not logged. That sale was to treat the same stands (units 29-31, and 33) as is proposed in this project.

Since these sales, Nordic skiers and hikers have enjoyed recreating on these haul roads, both on private land and on National Forest. Wildcat Brook road (NFSR 233) is groomed early in the season for Nordic skiing (Boggy Brook Trail) and is under permit to Jackson Ski Touring Foundation, a non-profit organization based in Jackson, New Hampshire. In addition, Nordic skiing is available on "Prospect Farm" and National Forest land accessed through the farm, including the Wildcat Valley, Dana Place, U.S.T, Halls Ledge Overlook, Orchard, Quail, Beth Hendrick, and Hubs Loop trails. Black Mountain

Ski Trail, south of the project area, is used for hiking and skiing. Light summer and fall use of these roads and trails occurs by individuals who enjoy walking or mountain biking there.

Hiking near the Project Area includes Halls Ledge Trail (#516), Wildcat River Trail (#213), Wild River Trail (#165), Bog Brook Trail (#214), Hutmans Trail, and Black Mountain Trail (#218).

There is evidence of a rock retaining wall along the upper Wildcat River, above NFSR 233, that may have been associated with a mill site. There are cellar foundations on private land in the vicinity of Black Mountain Trail, along the Wildcat Valley trail on Town of Jackson's Prospect Farm, and near the end of NFSR 233, in unit 1. Apple trees are present at the two locations on private land.

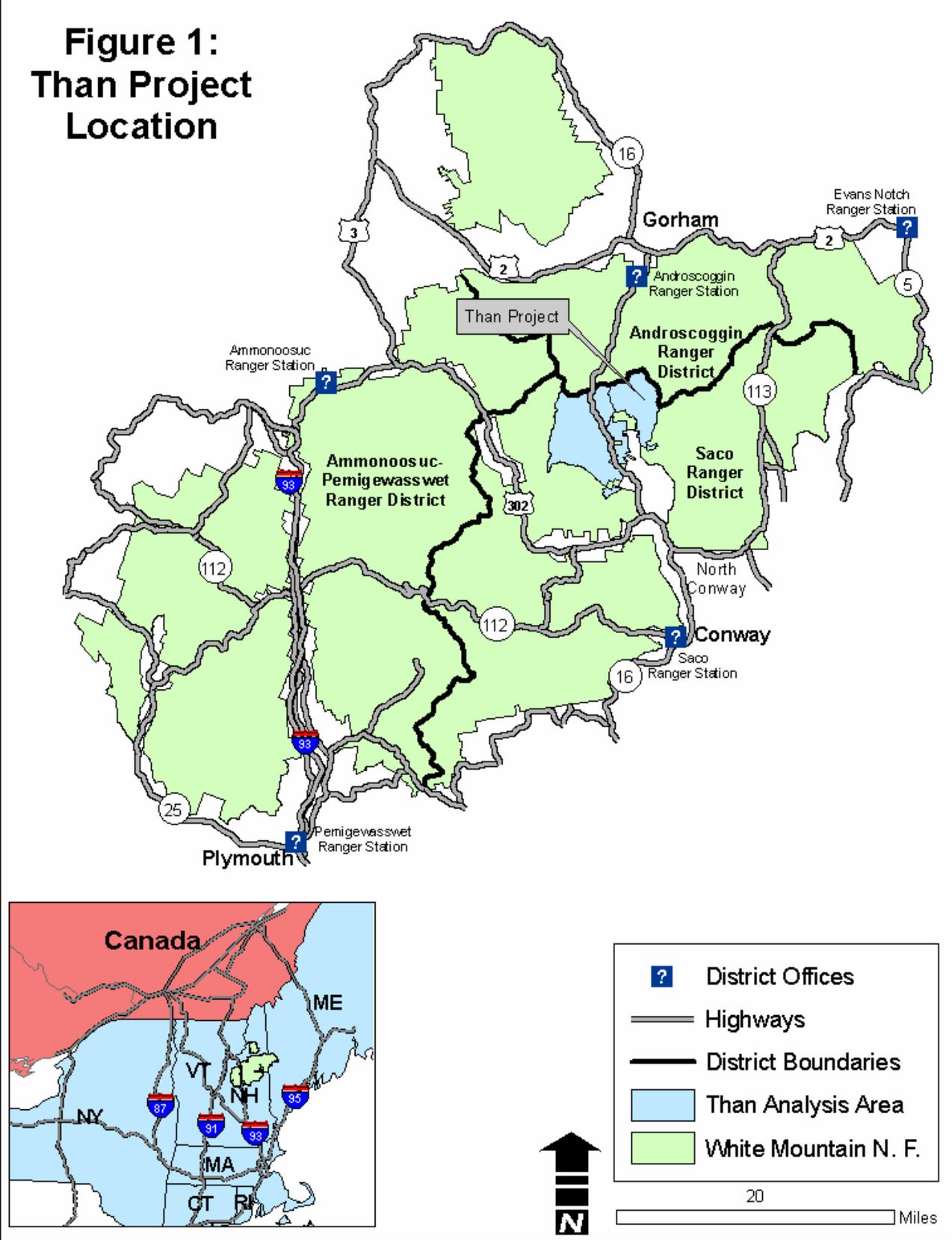
The town of Jackson owns a 500 acre parcel of land within the analysis area, commonly referred to as "Prospect Farm". This area was likely used for sheep grazing. All of the acres are now abandoned farmland returning to a wooded condition aged about forty years, and for which Jackson Town is preparing a Forest Management Plan to thin certain stands within the next five years or so.

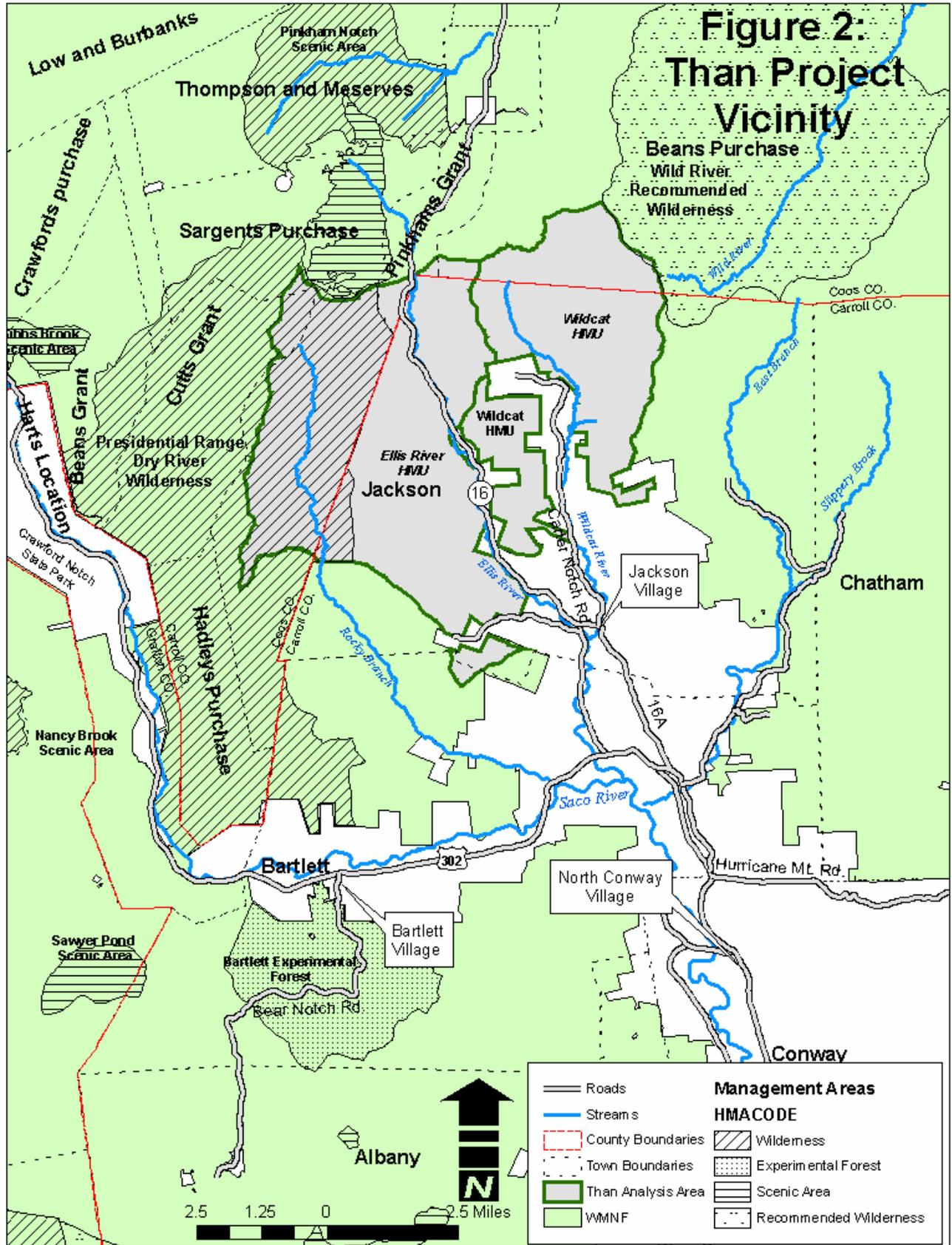
A roads analysis was conducted for this analysis area in conjunction with the Popple Project (Roads Analysis, 2005). It was modified to include the area across Ellis River referred to above. Roads analysis is used to identify long term needs for transportation access. The primary access to the Analysis Area are National Forest System Roads (NFSR) 233, 512, and reconstructed access across Ellis River to an existing landing for units 29 – 33. NFSR 233 and 512 are gated, but remain open to non-motorized traffic.

D. Description of Than Analysis Area

The project is located in the Town of Jackson, Carroll County, New Hampshire. The Analysis Area for water incorporates the tributaries that comprise Wildcat River and Ellis River. The analysis area for wildlife is the Ellis River HMU and the Wildcat HMU. These areas lie east of the Presidential - Dry River Wilderness Area. Analysis area boundaries for other resources will be described under each resource in the Environmental Assessment and are commensurate with the area of influence for each resource. See the maps on the following pages for additional information on the project area.

**Figure 1:
Than Project
Location**





E. Purpose of the Action

The Purpose for this project is to accomplish resource objectives to meet the overall management direction for the White Mountain National Forest, as established in the Forest Plan.

Management of vegetation within the Project Area is intended to meet Forest-wide goals and objectives for habitat, including (USDA-Forest Service, 2005a, LRMP, p 1-20):

1. Manage forest composition for the broad habitat types of northern hardwood, mixed hardwood-softwood, and spruce-fir forest, consistent with Ecological Land Type capability.
2. 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.
3. Maintain high quality mature forest and old forest habitats on a majority of the forest.
4. Provide regeneration age forest and open habitats to sustain biological diversity and support species that prefer those habitats.

The Project Area is within lands designated as Management Area (MA) 2.1, General Forest Management. The Forest Plan lists the Purpose for MA 2.1 as four-fold (USDA-Forest Service, 2005a, LRMP, p 3-3):

1. Provide high quality hardwood sawtimber and other timber products on a sustained yield basis.
2. Provide a balanced mix of habitats for all wildlife species.
3. Provide opportunities for a full mix of recreational opportunities from low-use hiking trails to highly developed campgrounds, and meet ROS objectives varying from urban to semi-primitive motorized, in different locations and varying by season or presence of management activities. (NOTE: Portions of this project area are managed as nordic skiing trails under a special use permit issued to Jackson Ski Touring Foundation. The project should be managed to minimize impacts or, where possible, enhance recreation opportunities provided by JSTF.)
4. Manage high-use or highly developed recreation areas to acceptable social and ecological standards; manage to retain some low-use and less developed areas.

F. Need for the Action

The Forest Plan describes the Desired Future Condition (DFC) for lands allocated to MA 2.1 as “a mix of deciduous and coniferous forest stands of various types. The stands will vary in size, shape, height, and tree species. Both even-aged and uneven-aged harvest techniques will be used.” To achieve this condition, “silvicultural practices will be used to meet timber, ecological, visual, and recreation objectives. Most stands will provide high quality sawtimber. Suitable habitat will be provided for a variety of wildlife and plant species.” Further, “habitat at the landscape level will include a sustainable mix of young and mature forest. Permanent and temporary openings will occur across the landscape in shapes and sizes that are consistent with scenic objectives in an area. All communities that would naturally be present will be managed so that they are maintained or enhanced.” (USDA-Forest Service, 2005a, LRMP, p 3-3).

The Forest Plan establishes the HMU as the base level for identifying existing conditions and land capability, and developing habitat composition and age class objectives that contribute to the DFC. A Need for Action is determined when there is a difference between the existing condition and the desired condition of an HMU. Based on this difference, stands within compartments are identified for

silvicultural treatment to achieve the habitat and age class objectives that describe the DFC. An Interdisciplinary Team (IDT) of Forest Service resource specialists chose stands for silvicultural treatment by comparing existing habitat conditions to desired conditions as outlined in the Forest Plan and as determined by developing HMU-specific habitat management objectives. This analysis indicated there is a Need for a more diverse age class and habitat composition (Forest Plan, VII-B-12/13), and for improved stand conditions to insure optimum tree growth and quality of wood products.

The IDT considered many factors when monitoring forest conditions. Forest vegetative conditions change over time as trees mature, and thereby present opportunities in some areas to enhance overall conditions within an HMU. The interdisciplinary team evaluated current conditions in these HMUs during numerous on-site visits. Field observations included evidence of well stocked softwood, mixedwood and hardwood stands, with average amounts of disease and mortality; where stand treatment would enhance forest diversity. Inventory plot data was collected including tree ages, species composition, tree condition; crown closure, stand density, understory vegetation data, and other components. Inventory data is used to help determine silvicultural prescriptions and to predict stand development following harvest. Other observations and analysis include effects of past management and ongoing recreation uses; evidence of wildlife; surveys for sensitive plants and animals and for invasive species, surveys for Heritage Resources; condition of roads, trails and streams; soil types and land stability; and to evaluate scenery.

The Forest Plan has established Forest-wide composition and age class objectives, by habitat type, for Management Area 2.1 lands (USDA-Forest Service, 2005a, LRMP, pp 1-20 to 1-22):

- These objectives assume that all MA 2.1 lands that are in the unsuitable landbase, regardless of current age class, will be unmanaged and will grow over time into the old age class, forming the old forest habitat within MA 2.1. The amount of unsuitable lands in MA 2.1 may vary widely among the HMUs, so the amount that each HMU contributes to the old age class will vary widely, as well.
- These objectives also assume that, within each HMU, the percentage of regeneration and young age class will be the same as the Forest-wide objectives, but the percentage of mature and old age class will depend on the amount of unsuitable lands in MA 2.1 within the HMU.

In accordance with the Forest Plan, the Forest Service must establish composition and age class objectives for an HMU prior to proposing a project within that HMU (USDA-Forest Service, 2005a, LRMP, p 2-33). By comparing these objectives and the Desired Future Condition of an HMU with the existing composition and age class distribution, the Forest Service can determine if there is a **Need for Change** within the MA 2.1 lands of the HMU. Table 1 below provides a summary of this need for change.

Table 1 shows existing and desired condition by vegetative community type, and potential need for change.

Acres by Community Type in MA 2.1 within the analysis area (Wildcat River HMU and part of the Ellis River HMU)

Table 1A. Wildcat River HMU

Community Type	Existing	Desired Future Condition	Need
Early-successional northern hardwoods	19	239	220
Spruce/Fir	712	2096	1384

Table 1B. Ellis River HMU

Community Type	Existing	Desired Future Condition	Need
Early-successional northern hardwoods	130	250	120
Spruce/Fir	177	1700	1523

Tables 1A and 1B show that to meet the habitat and stand structure objectives of the Forest Plan within the analysis area, there is a need to establish regenerating stands. Within the analysis area there is limited potential due to soil type to create aspen and paper birch stands. Even-aged harvest methods can be used to convert some of the mature and overmature northern hardwood stands to a regenerating age class (0-9 years). The table also shows the need to release understory and co-dominant spruce, fir and hemlock trees from competing hardwoods in mixedwood stands. Uneven-aged harvest (group selection and single tree selection) is used to remove hardwood overstory trees from a spruce/fir understory and thereby increase their softwood component.

There is a need to maintain recreation opportunities in the Analysis Area. Improved parking for the moderately used Bog Brook and Wildcat River Trail with a connecting trail to Bog Brook Trail is needed. Also needed is an alternate access route to Black Mountain Cabin and East Pasture Trail that does not require access through private land. An access route is possible from the end of Forest Road 233 (Boggy Brook Trail). These improvements would enhance the recreation experience. In addition, a section of Bog Brook Trail periodically washes out, suggesting a need for 500 feet of trail relocation.

There is a need to restore large woody material to improve fisheries and aquatic habitat in Bog, Davis and Wildcat Brooks. Past harvest activities led to a reduction of dead trees that naturally add to stream debris. Pool habitat and decaying wood that aquatic organisms rely on are lacking in these streams.

These HMUs have been accessed in the past, often with low standard or “winter” roads. To accomplish Forest Plan management objectives (identified needs), and to prevent or reduce potential long term erosion, some existing roads need improvement and maintenance.

G. Proposed Action

The Saco Ranger District of the White Mountain National Forest proposes to manage forest vegetation to increase wildlife habitat diversity, forest stand health and vigor, and improve recreation opportunity within the Than Analysis Area.

The Proposed Action is designed to fulfill the Purpose and Need for Action as described above and to achieve the desired vegetative conditions described in the Forest Plan. These goals include creating regeneration age habitat, facilitating softwood development, and providing forest products on a sustained yield basis. Connected Actions such as Bog Brook Trailhead relocation, creating wildlife openings, and pre-commercial release projects are needed to enhance resources conditions within the Analysis Area.

National Forest System Roads (NFSRs) to be used include 233, 512, 5030 and 5555. These roads are currently closed to public motorized traffic and would remain closed during and following

implementation of an action alternative if selected.

The following Proposed Action is designed to respond to the Purpose and Need for action by (1) Providing high quality sawtimber and other forest products to benefit the local economy; (2) Promoting the desired vegetation and habitat conditions outlined in the Forest Plan; (3) Providing opportunities for and manage a wide range of recreation of opportunities. A fourth and connected objective is to manage the transportation system in this area to meet the needs of the public.

FOREST AND HABITAT MANAGEMENT

- Improve timber quality and species composition in hardwood stands through approximately 422 acres of commercial thinning and 66 acres of single-tree selection treatments;
- Increase early successional habitat by creating approximately 184 acres of hardwood regeneration habitat in the project area through clearcutting and shelterwood;
- Enhance softwood composition and improve wildlife habitat through approximately 364 acres of group and single-tree selection harvests.
- Use six existing landings, and construct two new landings;
- Place six temporary skidder bridges over perennial streams to keep equipment and logs out of brooks;

TRANSPORTATION SYSTEM

- Road maintenance and/or rock surfacing on approximately 3.0 miles of existing roads;
- Road reconstruction on Forest Roads 512 (1.8 miles), 5030 (0.5 miles), and the end of Forest Road 233 (0.36 miles), to allow for summer and fall harvest activities;
- Reconstruction of 1500 feet of Forest Road 5555 (Ellis River Crossing) to allow for three-season use, including permanent abutments for a temporary bridge crossing of the Ellis River to access units 29-33;
- Reconstruct 2000 feet of existing road with Right-of-Way (ROW) across Jacksons' Prospect Farm, and 500 feet of additional new road to access National Forest (Units 18 – 20);
- Remove all temporary drainage structures and temporary bridges, treat needed areas for erosion (seeding and waterbars), and return previously closed roads to a closed intermittent status at the conclusion of this project;

WILDLIFE AND AQUATIC HABITAT IMPROVEMENT

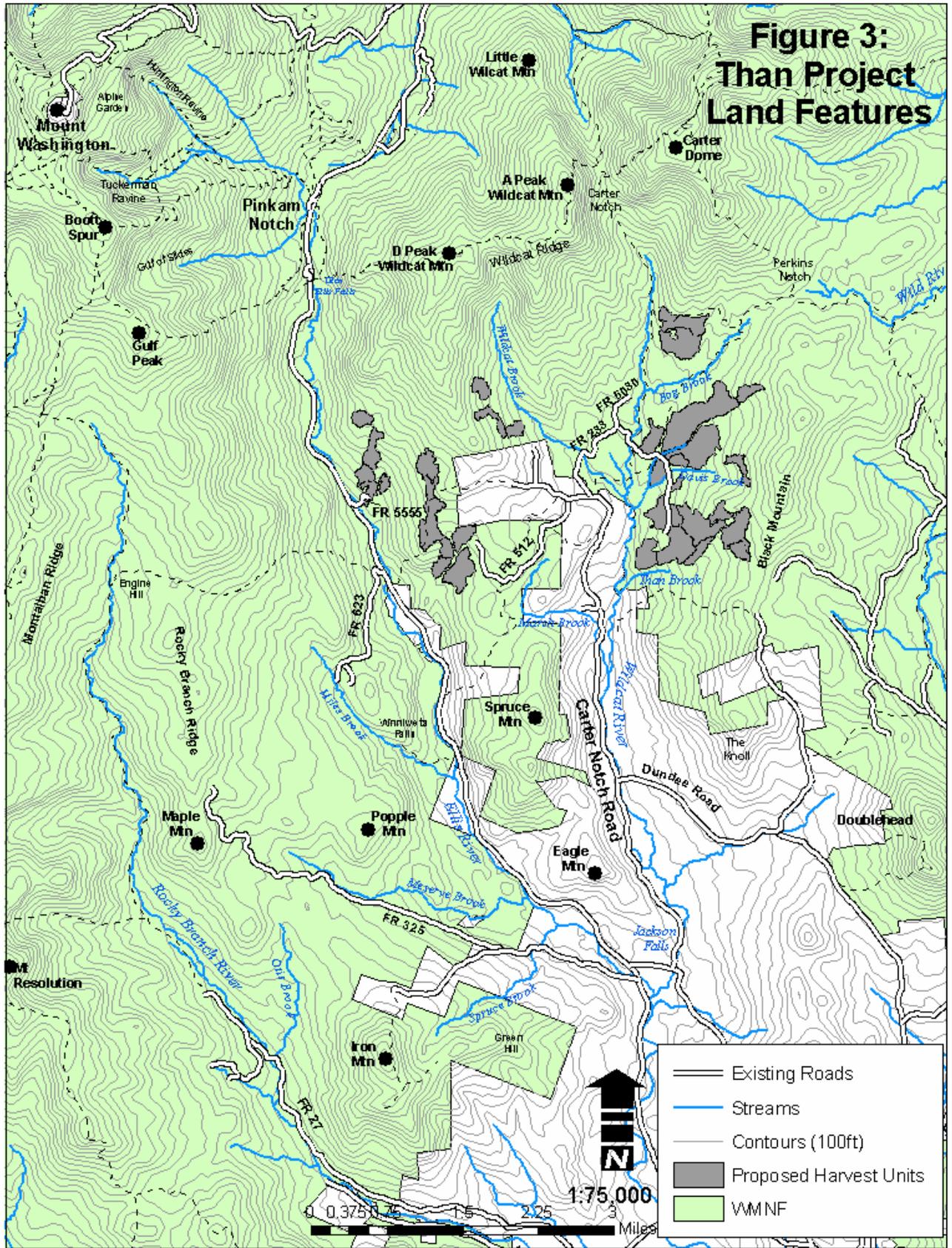
- Place woody debris using hand tools on the upper sections of Bog Brook, Wildcat Brook, Davis Brook, and Wildcat River;

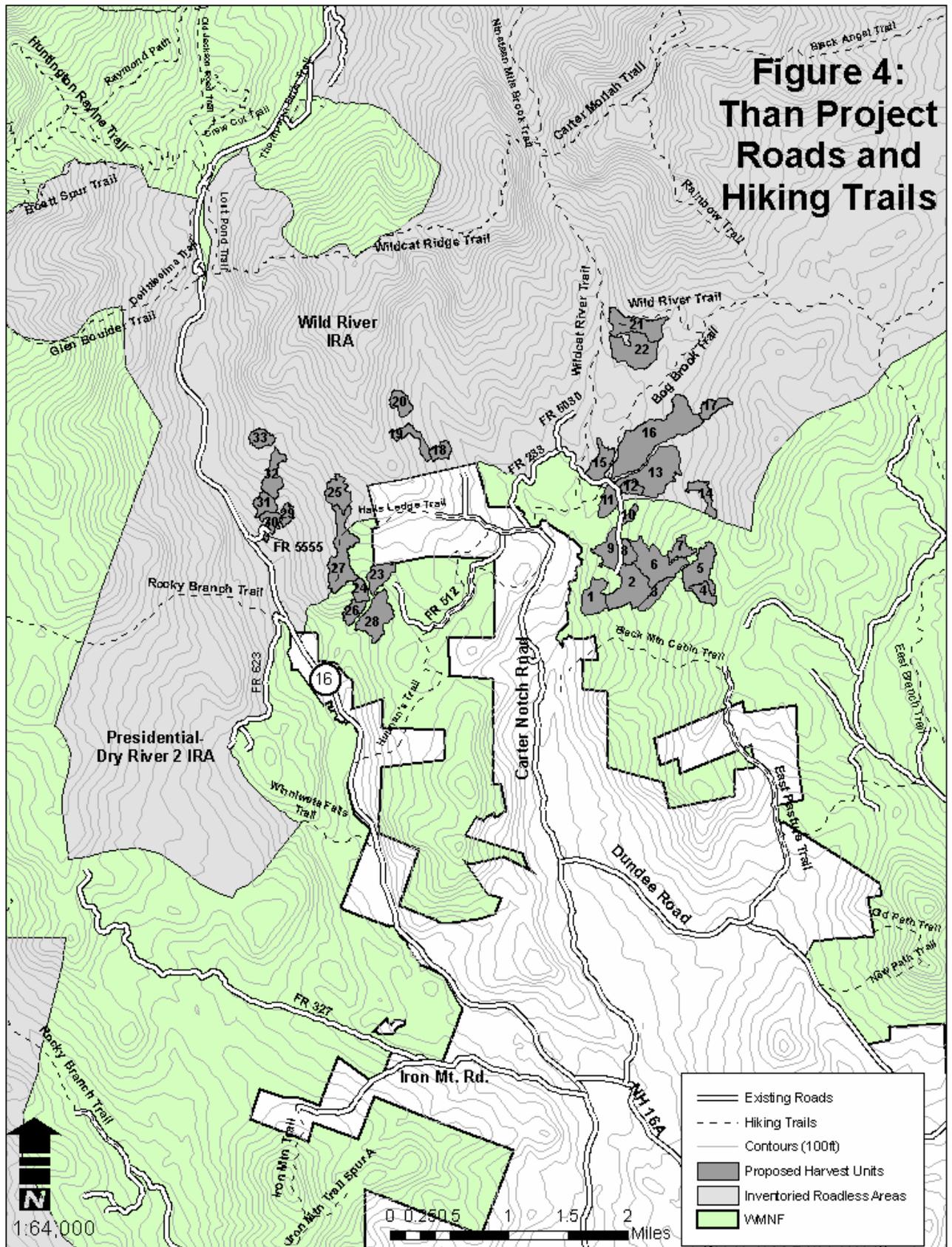
RECREATION MANAGEMENT

- Relocate 500 feet of Wildcat River Trail above FSR 233 to eliminate erosion on the trail;

H. Connected Actions

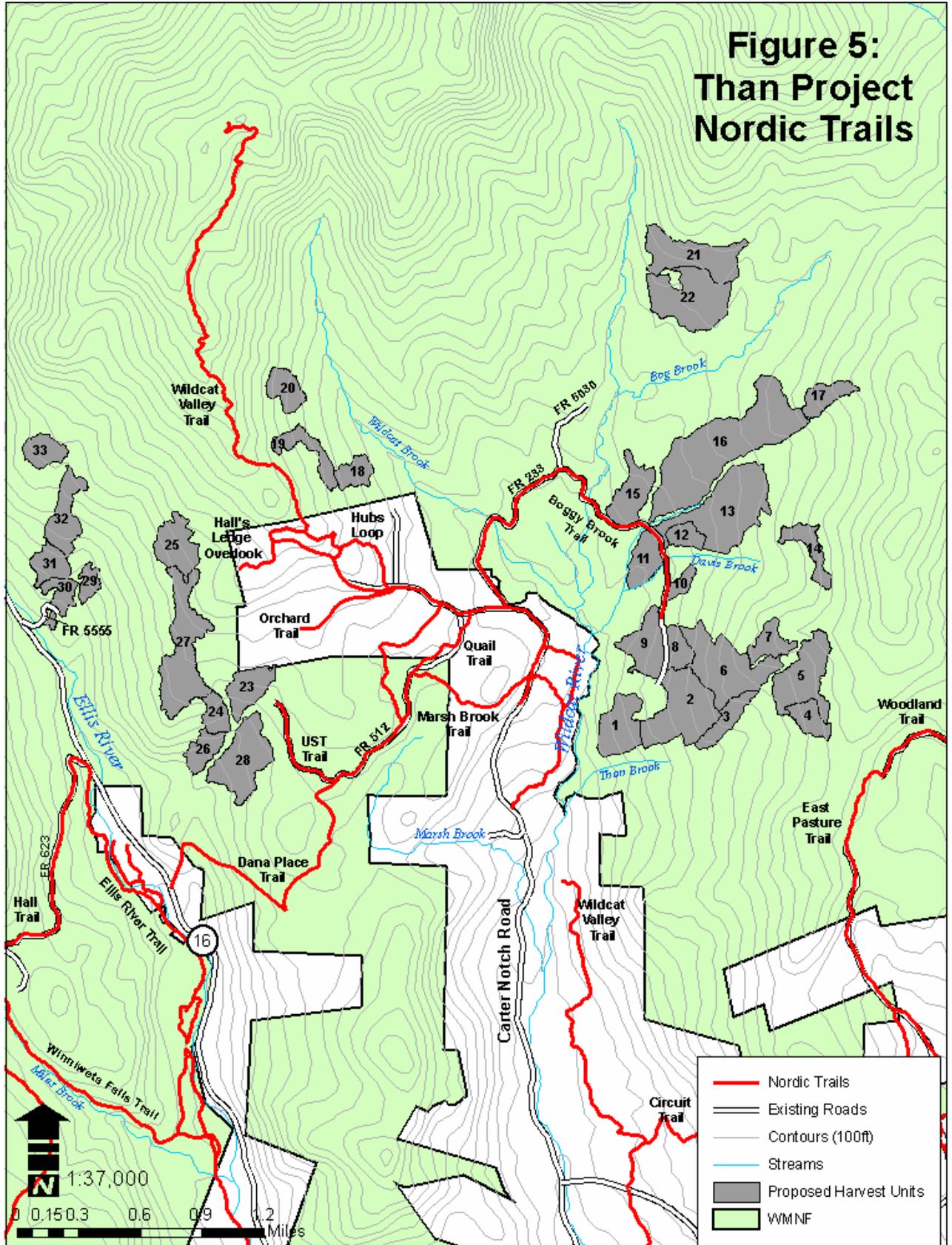
- To insure regeneration objectives are met, pre-commercial release of existing regeneration on up to 100 acres in group selection and single tree selection units may be implemented;
- Move Bog Brook Trailhead onto National Forest or Town of Jackson lands with an Easement or Agreement, including approximately 750 feet of connecting trail to Bog Brook Trail;
- Remove delapidated structures near the current trailhead for Bog Brook Trail, and create a 4 acre permanent Wildlife Opening at the site with access to allow for periodic maintenance of the opening.

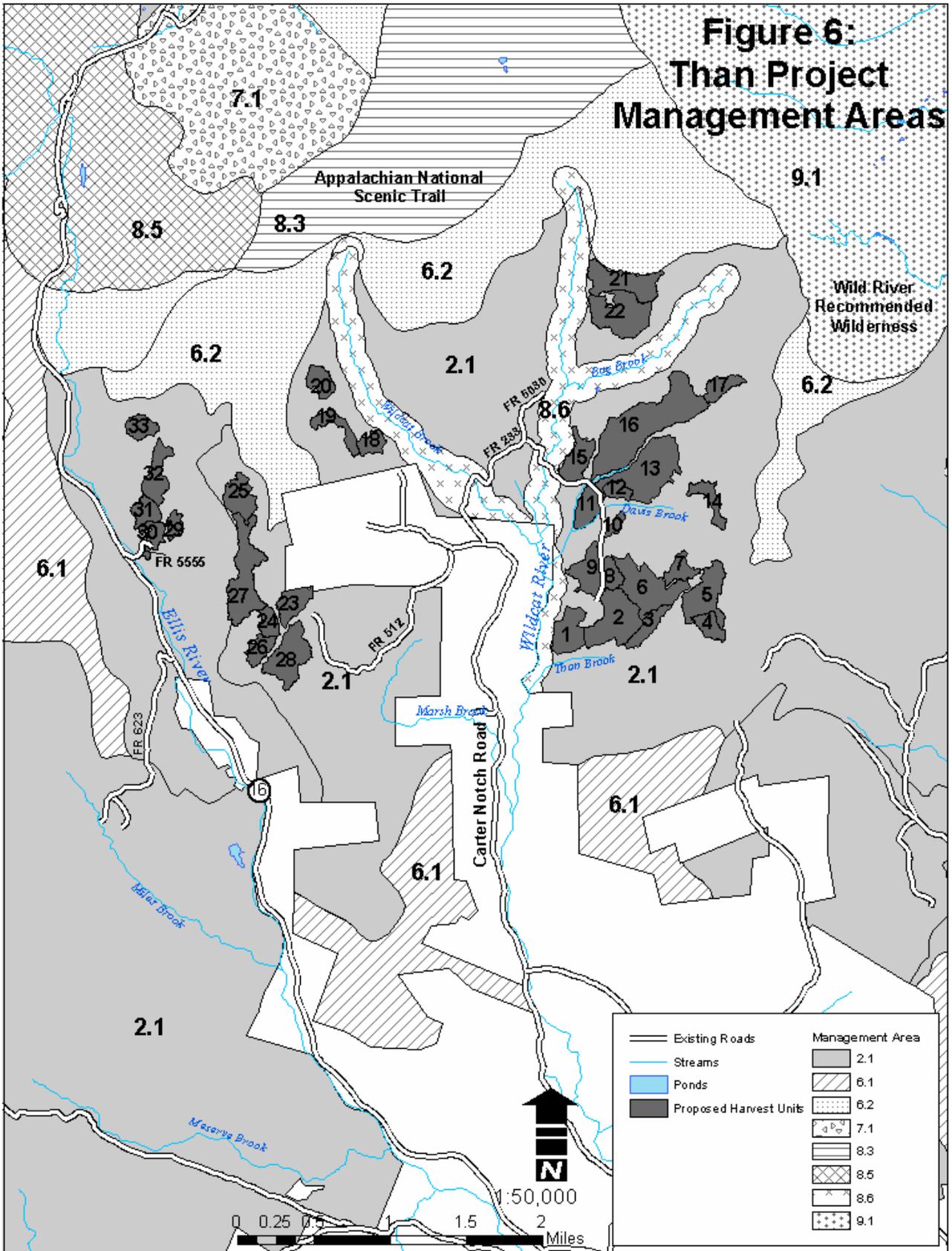




**Figure 4:
Than Project
Roads and
Hiking Trails**

**Figure 5:
Than Project
Nordic Trails**





I. Decision Framework

Considering the purpose and need for action, the deciding official, Saco District Ranger Terry Miller reviews the proposed action, the public comments, the issues and alternatives, the proposed mitigations, and the environmental effects in order to make decisions based on the following questions:

- Is the range of alternatives adequate to address relevant issues raised by the public and the interdisciplinary team and to meet the Purpose and Need for Action?
- Which of the alternatives best addresses relevant issues for this project?
- Would the Decision to implement an Alternative pose any significant environmental impact that would require an environmental impact statement?
- Does the decision to implement an Alternative meet applicable federal, state, and local laws and policies, including consistency with the Forest Plan?
- Do the proposed mitigation measures meet Forest Plan Standards and Guidelines?

J. Public Involvement

An announcement of the Public Comment Period and availability of this document is being published in the *Conway Daily Sun* and the legal notice section of the **Manchester Union Leader**. This document is being mailed to persons who are on our mailing list for vegetation management and recreation projects, to those who have expressed interest in this project, and to adjacent and affected landowners. This document will be posted on our White Mountain National Forest web page (www.fs.fed.us/r9/white). This project is listed in the Quarterly Schedule of Proposed Actions for the White Mountain National Forest, which is mailed to 500 people interested in White Mountain National Forest management activities. In addition we have informally discussed this project with Jackson Ski Touring Foundation and the Town of Jackson to help identify and solve preliminary issues.

Public comments for this project are being sought at this time, as the primary opportunity to comment on the project. Revised regulations (36 CFR 215) direct the Forest Service seek public input at a point in the planning process when a detailed project proposal and preliminary analysis of effects is available. We are at the point in the process where a formal 30-day public comment period is most likely to be meaningful (Reference Appendix C, “Where this Project is in the Forest Service NEPA Process”). This public involvement process, authorized under new planning regulations (36CFR 215 dated June 4, 2003), is designed to provide the public with a concise Public Comment Package for review, and provide the opportunity for site specific substantive comments. Substantive comments for this project will be considered and may be used to improve project design and mitigations (*what*), location of activities (*where*), and timing of activities (*when*).

Substantive comments received during this single 30-day comment period will be considered by the Responsible Official. Substantive comments are those that are within the scope of the proposed action, specific to the proposed action, have a direct relationship to the proposed action, and include supporting reasons for the Responsible Official to consider (36 CFR 215.2).

Comments may be written, hand delivered, provided verbally, or sent via E-mail. Comments may be addressed to Terry Miller, 33 Kancamagus Highway, Conway, NH 03818. E-mail comments referencing Than Project may be sent to comments-eastern-white-mountain-saco@fs.fed.us. Faxed

comments may be sent to Attn: Terry Miller at (603) 447-8405. E-mail acceptable formats for electronic comments are: text or HTML e-mail, and Microsoft Office formats. The office hours are 8:00 a.m. to 4:30 p.m., Monday – Friday (closed on holidays).

Individuals and organizations wishing to be eligible to appeal must provide the following with their comments: (i) Name and address; (ii) Title of the proposed action; (iii) Specific substantive comments on the proposed action, along with supporting reasons the Responsible Official should consider in reaching a decision; and (iv) Signature or other verification of identity upon request.

If you wish to reference scientific literature in your comment letter, I request that you send a copy of the entire reference you have cited, and include rationale as to how you feel it is pertinent to the Than Project.

The Environmental Assessment, Decision Notice and Finding of No Significant Impacts, and Response to Comments will be mailed to all who respond during the Public Comment Period. These documents will also be available on the White Mountain National Forest web page (www.fs.fed.us/r9/white). I anticipate this will occur in April 2006. **If you prefer to obtain these documents from the web site, and do not want a paper copy of these documents mailed to you, please notify us in your response during the Public Comment Period.**

K. Applicable Regulatory Requirements and Required Coordination

NFMA (National Forest Management Act)

NFMA gives direction for developing, maintaining and revising plans for individual units of the National Forest System. This includes direction for maintaining multiple use and sustained yield of forest products and services, insuring consideration of environmental aspects of various systems of resource management, providing for diversity of plant and animal communities, and insuring that timber will be harvested only where suitable. This document is *tiered to* the 2005 White Mountain National Forest Land and Resource Management Plan, which provides direction for managing Forest resources and lands, including timber resources and wildlife habitat.

NEPA (National Environmental Policy Act)

NEPA gives direction to analyze environmental conditions and consequences of planned and proposed actions. Council on Environmental Quality regulations and the Forest Service Manual and Handbooks give direction and guidelines for conducting the analysis.

New Hampshire SHPO (State Historic Preservation Officer) Review

The Cultural Resources report for this project has been sent to the State Historic Preservation Office (SHPO) for review. Concurrence from SHPO is expected in January 2006.

MBTA (Migratory Bird Treaty Act)

This project is consistent with the Migratory Bird Treaty Act. The White Mountain National Forest is actively involved with Partners in Flight program to protect neo-tropical migrants. Any concerns for species identified through the Species Viability Evaluation (SVE), or in the Biological Evaluation, including migratory birds, will be addressed in the projects final design.

USFWS (United States Fish and Wildlife Service)

The USFWS will be asked to review the biological evaluation (BE) for federally listed threatened and endangered species (TES) prior to any decision.

L. Preliminary Issues Used to Develop Alternatives

Preliminary issues were identified by the interdisciplinary team and through informal discussions with potentially affected parties in the Town of Jackson. Additional issues may be identified during this public comment period and additional alternatives may still be developed.

Issues are presented in two groups: “Issues Used to Develop Alternatives” and “Other Issues Brought Forward during Public Involvement.” Issues Used to Develop Alternatives are typically used to develop site-specific alternatives. Measurement indicators were developed for these two issues and are a means of comparing the alternatives. “Other Issues Brought Forward During Public Involvement” are resolved through project design including mitigations, or are resolved at a higher level including 1) *outside the scope* of the proposed action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence. NEPA regulations require this delineation in Sec 1501.7, “... identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3)”.

The interdisciplinary team studied the known issues and identified the following **Issues Used to Develop Alternatives**. “Measurement Indicators” are identified for each issue and are used in Chapter 2, Section E for the Comparison of Alternatives table.

1. Effect that winter timber haul on NFSR 233 and 512 would have on Nordic Skiing

Measurement Indicator: Miles of Nordic skiing affected from this sale and cumulatively, and miles of new ski trail (proposed under alternative 3 only).

2. Effect of harvest openings on scenery as viewed from Carter Notch, Hall’s Ledge, Black Mountain Cabin, Bear Peak, Wildcat Peak, Iron Mountain and Mount Washington

Measurement Indicator: Acres of new openings (clearcuts) viewed within the analysis area as seen from the viewpoints listed above.

3. Wildlife habitat (silvicultural treatments) and Aquatic habitat enhancements

The purpose and need for this project includes the need to enhance softwood habitat, to create openings, to increase overall stand health, and to add large woody material to Bog, Wildcat and Than Brooks.

Measurement Indicators:

- Acres of early successional habitat created;
- Acres of softwood habitat enhanced;
- Miles of stream receiving aquatic and riparian enhancement via placement of large wood;
- Acres of increased timber quality and improved species composition;
- Water quality effects resulting from the proposed action and connected actions.

M. Other Issues addressed by meeting Forest Plan Standards and Guidelines and through Project Specific Mitigations

Following CEQ § 1500.4(c)(d) the following issues will be incorporated into discussions in Chapter 3 of the completed Environmental Assessment. The issues listed in this section are limited in extent, duration, and intensity and were not used to generate an alternative. These issues are of such context, duration and intensity that they are resolved by project design and mitigations.

- Avoid impacting historical sites within the Project Area
- Insuring that Actions within those portions of the Wild River Inventoried Roadless Area affected by this project(s) do not disqualify those roadless areas from future consideration for Wilderness;
- Insuring that Forest Plan Standards and Guidelines are met so that soil and water quality effects are within the anticipated effects displayed in the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) for the White Mountain National Forest Land and Resource Management Plan;
- Insure Public Safety on Carter Notch Road and in the project area.

Chapter 2 - Alternatives

A. Formulation of Alternatives

This chapter provides a detailed description of the Proposed Action and Alternatives to the Proposed Action. Alternative 1, referred to as the “No Action” alternative, proposes that no vegetative management activities be conducted within the Than Project Area. Consideration of the No Action Alternative is required by regulations implementing the National Environmental Policy Act (NEPA), and is intended to contrast the effects of no action to the effects of action alternatives. Alternatives 2 and 3 are referred to as “Action Alternatives”, and they each propose vegetative management within the Than Project Area. Each action alternative responds to varying degrees to the “need for change” described in the Purpose and Need section of Chapter 1.

Alternative 2 is the “Proposed Action” described in Chapter 1. Alternative 3 responds to known public concern about impacts to Nordic skiing opportunities on NFSR 512. This alternative reduces potential effects on Nordic skiing by limiting harvest activities to summer, fall and up to December 15 of each year on units accessed via NFSR 512. In the event snow has not arrived, the purchaser would be allowed to continue operations until adequate snow is predicted.

Each Action Alternative meets to varying degrees, the Purpose and Need for Action described in Chapter 1. Compartment records and intensive field data was collected from stands within the Wildcat River HMU to identify stands that would benefit from silvicultural treatments. Site specific soil, water, recreation, scenery and wildlife concerns are addressed through project design and alternative design.

The Forest Plan lists specific mitigation measures called Standards and Guidelines for limiting environmental effects from timber harvesting, road construction, and road maintenance. These Standards and Guidelines direct activities on the White Mountain National Forest and are incorporated into this project.

Additional mitigation measures that go above and beyond Forest Plan Standards and Guidelines address concerns specific to the Proposed Action and Alternatives. These site-specific measures (described in Appendix A) have been developed through ongoing research and result from monitoring and evaluation of similar actions on the White Mountain National Forest over the past 16 years.

B. Description of Alternatives

Alternative 1 - No Action Alternative

While this alternative does not meet the Purpose and Need for Action, it does provide a basis for analyzing the effects of conducting no management activities (No Action) in the Analysis Area, and comparing these effects with those alternatives that propose some level of management. This alternative is required by regulations implementing the National Environmental Policy Act (NEPA). This alternative would not harvest any trees, construct any roads or ski trails, implement aquatic or wildlife habitat improvements, or implement the connected actions. This alternative would not meet Forest Plan expectations for wildlife and aquatic habitat management in these two HMUs, or

contribute toward providing a sustained yield of timber products toward Forest Plan goals. See Figures 1 - 6 for informative maps of the analysis area and Figures 7 and 8 for Alternative Maps.

There would be no change to the existing condition of the area except from natural occurrences, ongoing recreation activities, and road and trail maintenance. This alternative provides a foundation for describing and comparing the magnitude of environmental changes associated with the Action Alternatives against those that are occurring in the Analysis Area. This alternative responds to those who want no timber harvesting or active wildlife habitat management. The term “No-Action” means no management action at this time.

Alternative 2 –Proposed Action

The Proposed Action and its connected actions are developed to optimize the Purpose and Need for Action with the most current information available. It would move the HMUs toward attaining wildlife habitat diversity objectives and other Forest Plan goals. These goals include creating early successional habitat, increasing softwood development, and providing for sustained timber production. (Proposed harvest units are below 2800 feet in elevation, with the majority of the Units at an elevation averaging 1900 feet.)

Alternative 2 responds to the Purpose and Need for action in the following ways:

Promote desired vegetation and habitat conditions outlined in the Forest Plan and produces forest products to benefit the local economy by:

- Increasing early successional habitat by creating up to 184 acres of hardwood regeneration habitat through clearcutting and shelterwood;
- Enhancing softwood composition and improve wildlife habitat through approximately 364 acres of group and single-tree selection harvests.
- Improving timber quality and species composition in hardwood areas through approximately 422 acres of commercial thinning and 66 acres of group and single-tree selection treatments;
- Pre-commercially thin or brush up to 100 acres to promote regeneration objectives;
- Placing six temporary skidder bridges over perennial streams to keep equipment and logs out of brooks during skidding;
- Using six existing landings, and construct two new landings;

Maintain or improve the transportation system needed for management and public access through:

- Road maintenance and/or rock surfacing on up to 3.0 miles of existing roads;
- Road reconstruction on Forest Roads 512 (1.8 miles), 5030 (0.5 miles), and the end of Forest Road 233 (0.36 miles), to allow for summer and fall harvest activities;
- Reconstruction of 1500 feet of NFSR 5555 (Ellis River Crossing) to a three season road with a temporary bridge and permanent abutments at the Ellis River crossing;
- Reconstructing 2000 feet of existing road with Right-of-Way (ROW) across Jacksons’ Prospect Farm, and then constructing 500 feet of new road at the end of the existing road to access National Forest (Units 18 – 20);
- Remove all temporary drainage structures and temporary bridges, treat needed areas for erosion (seeding and waterbars), and return previously closed roads to a closed intermittent status at the conclusion of this project;

Improve wildlife and aquatic habitat in the area by:

- Placing woody debris using hand tools on the upper sections of Bog, Wildcat, and Davis Brooks and Wildcat River to add structure to the stream and therefore increase aquatic habitat diversity, and create pools and cover. In addition, downed wood may be added to the riparian area adjacent to the stream where evidence of eroding side channels occur.

Maintain or improve recreation opportunities in the area by:

- Relocating 500 feet of Wildcat River Trail above FSR 233 to eliminate erosion on the trail;

Estimated Outputs under Alternative 2

Alternative 2 would provide approximately 5.0 million board feet of sawtimber and pulpwood, and improve future stand quality and productivity.

This alternative responds to the need to create hardwood early successional habitat and to increase softwood component in mixedwood stands. This alternative would create 184 acres of early-successional habitat (forest stands 0-9 years old). Natural regeneration with paper birch, yellow birch, pin cherry, red maple and sugar maple are expected in clearcut units.

Using group and single tree selection treatments this alternative responds to the need to increase softwood component on 364 acres. Thinning and single-tree selection in 462 acres of hardwood stands would reduce stand density while maintaining a forested stand and increasing tree size and vigor.

Road maintenance, pre-commercial timber stand improvement, trailhead improvement, hiking trail, aquatic and wildlife habitat improvements would occur under this alternative.

**Figure 7:
Than Project
Alternative - 2
Proposed Action**

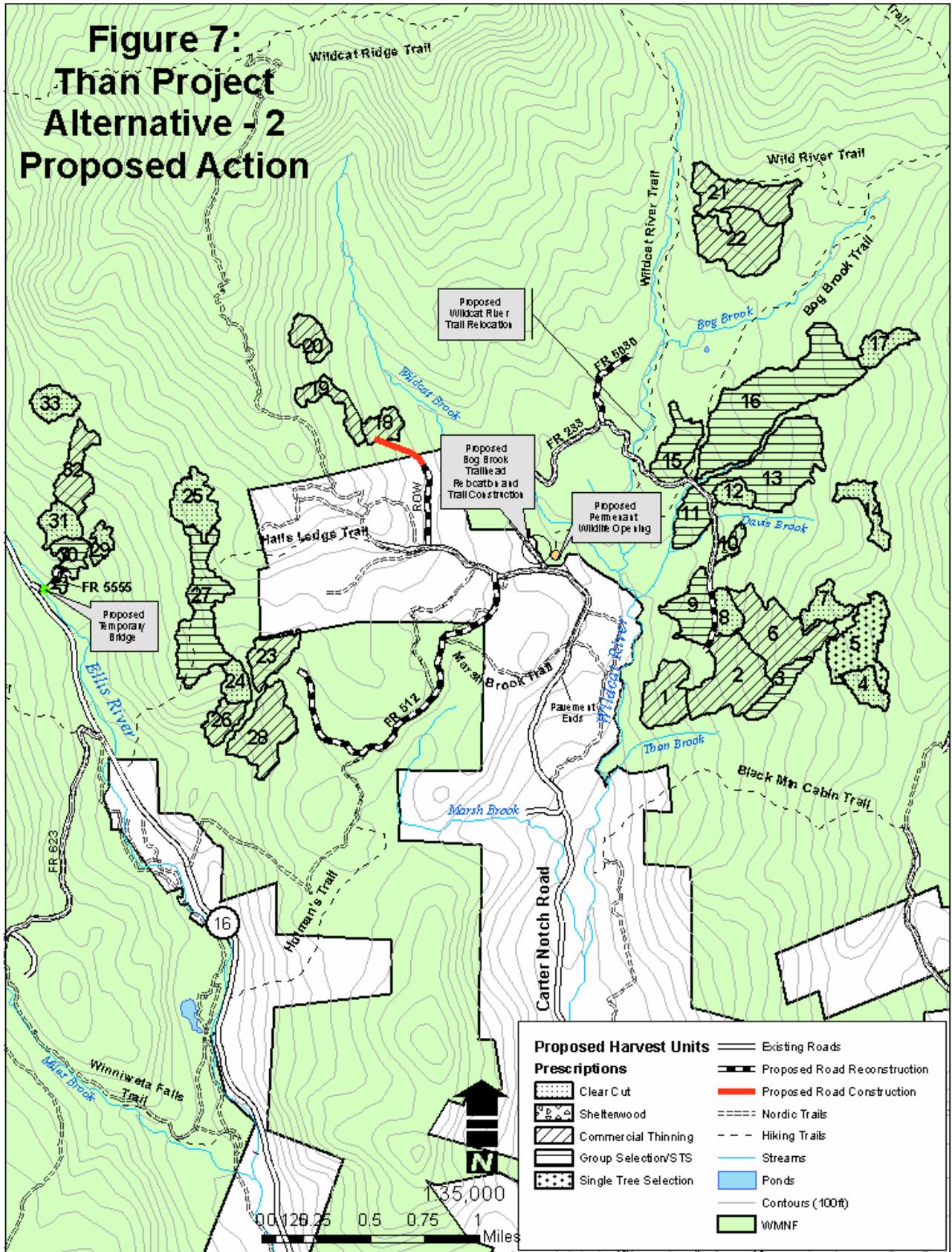


Table 2. Than Project Alternative 2 (Proposed Action)

Unit	Forest Type	Acre	Treatment Objective	Harvest Method	Operating Season
1	Hardwood	33	Quality hardwood	Thin	Fall/winter
2	Hardwood	59	Quality hardwood	Thin	Fall/winter
3	Mixedwood	18	Softwood development	Group Sel/STS	Winter
4	Hardwood	16	Regeneration	CC	SFW
5	Mixedwood	45	Softwood development	STS	Winter
6	Hardwood	61	Quality hardwood	Thin	Fall/winter
7	Hardwood	16	Regeneration	CC	SFW
8	Hardwood	15	Regeneration	CC	SFW
9	Mixedwood	32	Softwood development	Group Sel/STS	Winter
10	Hardwood	8	Regeneration	Shelterwood	Summer/fall
11	Mixedwood	22	Softwood development	Group Sel/STS	Winter
12	Hardwood	11	Regeneration	CC	SFW
13	Mixedwood	76	Softwood development	Group Sel/STS	Winter
14	Hardwood	18	Regeneration	CC	SFW
15	Mixedwood	30	Softwood development	Group Sel/STS	Fall/winter
16	Mixedwood	126	Softwood development	Group Sel/STS	Winter
17	Hardwood	17	Regeneration	CC	SFW
18	Hardwood	14	Quality hardwood	Thin	Fall/winter
19	Hardwood	19	Quality hardwood	Thin	Fall/winter
20	Hardwood	18	Quality hardwood	Thin	Fall/winter
21	Hardwood	47	Quality hardwood	Thin	Fall/winter
22	Mixedwood	57	Quality hardwood	Thin	Fall/winter
23	Hardwood	23	Quality hardwood	Thin	Fall/winter
24	Hardwood	13	Regeneration	CC	SFW
25	Hardwood	29	Regeneration	CC	SFW
26	Hardwood	16	Quality hardwood	Thin	Fall/winter
27	Hardwood	64	Softwood, Q hardwood	Group Sel/STS	Fall/winter
28	Hardwood	47	Quality hardwood	Thin	Fall/winter
29	Hardwood	9	Regeneration	CC	SFW
30	Mixedwood	16	Softwood and Q hardwood	Group Sel/STS	Fall/winter
31	Hardwood	17	Regeneration	CC	SFW
32	Hardwood	29	Quality hardwood	Thin	Fall/winter
33	Hardwood	16	Regeneration	CC	SFW
Sum		1036			

Table KEY:

Harvest Method: the silvicultural prescription, or type of harvest proposed for a given Unit.

Group Selection= small openings averaging 1/2 acre, spaced throughout, and treating up to 20 % of a Unit.

STS= Single Tree Selection, an uneven age management system that retains a representation of existing species and ages of trees while reducing stand density to an approximate Basal Area of 80 to 90 square feet.

CC= Clearcut, a cut method that removes all trees except reserve patches and creates an opening for regeneration of new trees.

Thin = Thinning a stand by removing smaller trees, damaged trees and low value or short lived trees to a Basal Area of 70 square feet.

Forest Type – represents the primary species composition and stand age of a Unit.

Treatment objective –harvest methods are designed (prescribed) to meet the Purpose and Need for action, or treatment in each Unit. This results in development of a particular Forest Type.

Operating Season - Time of year when harvest activities are scheduled to occur. Operating is allowed during the specified season. Activities may occasionally occur outside these periods when soil conditions and other resource considerations allow.

SFW= Summer, Fall, and Winter operating seasons.

Alternative 3

Alternative 3 responds to known or anticipated public concerns about impacts from winter logging on Nordic Skiing opportunities within the Analysis Area. This alternative reduces potential effects on Nordic skiing in a portion of the Analysis Area by limiting harvest activities to summer and fall, up to December 20 of each year. The restriction on winter harvest would extend the contract period over a greater number of years.

To a similar degree as the Proposed Action, it would move these HMUs toward attaining wildlife habitat diversity objectives and other Forest Plan goals. These goals include creating early successional habitat, increasing softwood development, and providing for sustained timber production. Alternative 3 may require more operating seasons to complete the project, but would also increase recreation opportunities and improve wildlife and aquatic habitat.

Alternative 3 attempts to respond to the Purpose and Need for action in the following ways:

Promote desired vegetation and habitat conditions outlined in the Forest Plan and produces forest products to benefit the local economy by:

- Creating 184 acres of hardwood early successional habitat through clearcutting;
- Enhancing softwood habitat through approximately 364 acres of group/single-tree selection harvests;
- Improving timber quality and species composition in hardwood stands through approximately 422 acres of commercial thinning and 66 acres of group/single tree selection;
- Pre-commercially thin or brush up to 100 acres to promote regeneration objectives;
- Placing six temporary skidder bridges over perennial streams to keep equipment and logs out of brooks during skidding;
- Use six existing landings, and construct two new landings;

Maintain or improve the transportation system needed for management and public access through:

- Road maintenance and/or rock surfacing on up to 3.0 miles of existing roads;
- Road reconstruction on Forest Roads 512 (1.8 miles), 5030 (0.5 miles), and the end of Forest Road 233 (0.36 miles), to allow for summer and fall harvest activities;
- Reconstruction of 1500 feet of NFSR 5555 (Ellis River Crossing) to a three season road with a temporary bridge and permanent abutments at the Ellis River crossing;
- Reconstructing 2000 feet of existing road with Right-of-Way (ROW) across Jacksons' Prospect Farm, and then constructing 500 feet of new road at the end of the existing road to access National Forest (Units 18 – 20);
- Removing all temporary drainage structures and temporary bridges, treat needed areas for erosion (seeding and waterbars), and return previously closed roads to a closed intermittent status at the conclusion of this project;

Improve wildlife and aquatic habitat in the area by:

- Placing woody debris using hand tools on the upper sections of Bog, Wildcat, and Davis Brooks and Wildcat River to add structure to the stream and therefore increase aquatic habitat diversity, and create pools and cover. In addition, downed wood may be added to the riparian area adjacent to the stream where evidence of eroding side channels occur.

Maintain or improve recreation opportunities in the area by:

- Relocating 500 feet of Wildcat River Trail above FSR 233 to eliminate erosion on the trail;
- Provide for a future nordic trail from the end of Boggy Brook Nordic Trail (at the end of the NFSR 233 Road) easterly to East Pasture Trail, a distance of approximately 1 mile, primarily within harvested areas;

Estimated Outputs

Alternative 3 would provide approximately 5.0 million board feet of sawtimber and pulpwood, and improve future stand quality and productivity.

This alternative responds to the need to create hardwood early successional habitat and to increase softwood component in mixedwood stands. This alternative would create 184 acres of early-successional habitat (forest stands 0-9 years old). Natural regeneration with paper birch, yellow birch, pin cherry, red maple and sugar maple are expected in clearcut units.

Using group and single tree selection treatments this alternative responds to the need to increase the softwood component on 364 acres. Thinning and single-tree selection in 462 acres of hardwood stands would reduce stand density while maintaining a forested stand and increasing tree size and vigor.

Road maintenance, pre-commercial timber stand improvement, trail head improvement, hiking trail, a Nordic connecting trail, aquatic and wildlife habitat improvements would occur under this alternative.

**Figure 8:
Than Project
Alternative - 3**

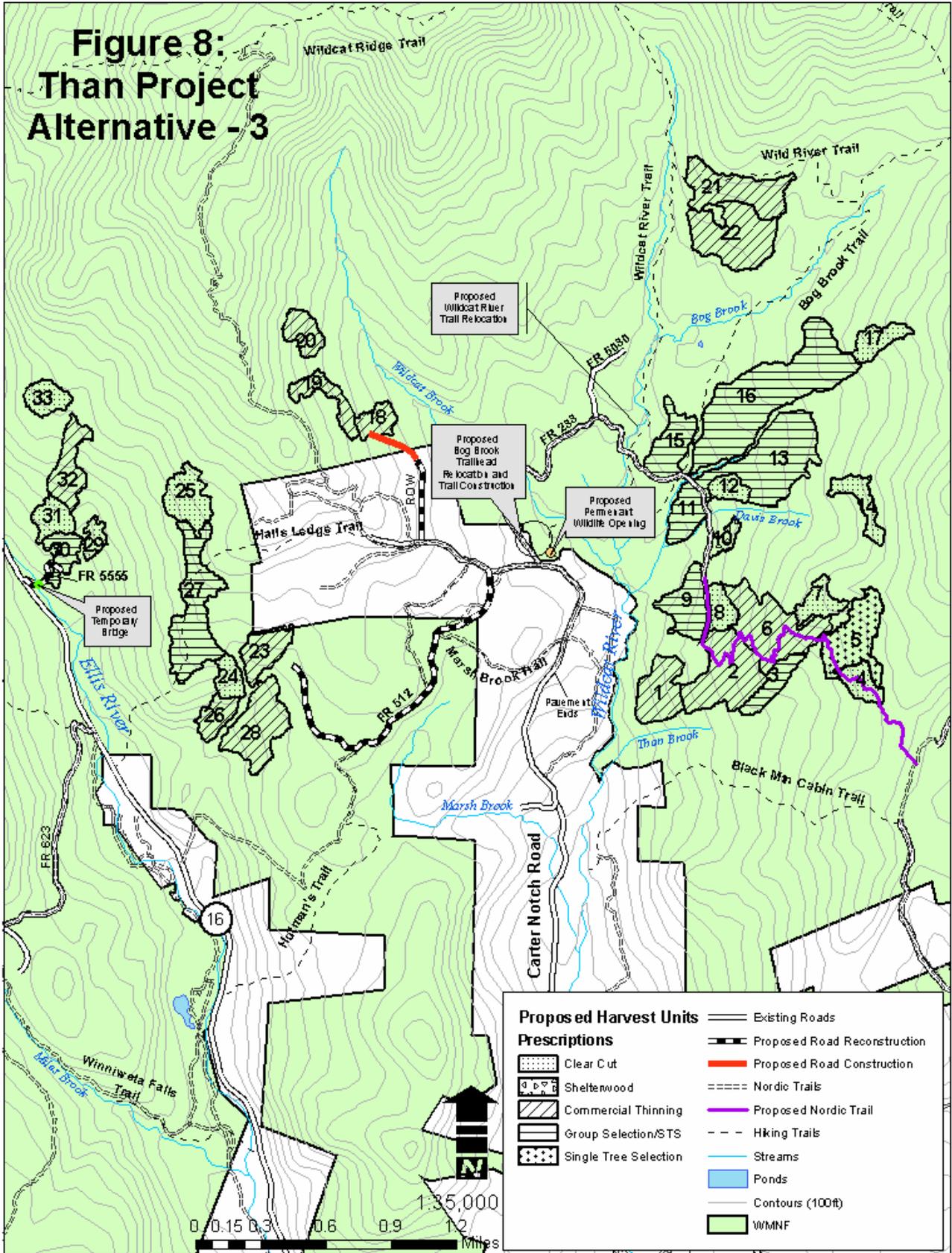


Table 3. Than Project Alternative 3

Unit	Forest Type	Acre	Treatment Objective	Harvest Method	Operating Season
1	Hardwood	33	Quality hardwood	Thin	Fall/winter
2	Hardwood	59	Quality hardwood	Thin	Fall/winter
3	Mixedwood	18	Softwood development	Group Sel/STS	Winter
4	Hardwood	16	Regeneration	CC	SFW
5	Mixedwood	45	Softwood development	STS	Winter
6	Hardwood	61	Quality hardwood	Thin	Fall/winter
7	Hardwood	16	Regeneration	CC	SFW
8	Hardwood	15	Regeneration	CC	SFW
9	Mixedwood	32	Softwood development	Group Sel/STS	Winter
10	Hardwood	8	Regeneration	Shelterwood	Summer/fall
11	Mixedwood	22	Softwood development	Group Sel/STS	Winter
12	Hardwood	11	Regeneration	CC	SFW
13	Mixedwood	76	Softwood development	Group Sel/STS	Winter
14	Hardwood	18	Regeneration	CC	SFW
15	Mixedwood	30	Softwood development	Group Sel/STS	Fall/winter
16	Mixedwood	126	Softwood development	Group Sel/STS	Winter
17	Hardwood	17	Regeneration	CC	SFW
18	Hardwood	14	Quality hardwood	Thin	Fall
19	Hardwood	19	Quality hardwood	Thin	Fall
20	Hardwood	18	Quality hardwood	Thin	Fall
21	Hardwood	47	Quality hardwood	Thin	Fall/winter
22	Mixedwood	57	Quality hardwood	Thin	Fall/winter
23	Hardwood	23	Quality hardwood	Thin	Fall
24	Hardwood	13	Regeneration	CC	Summer/fall
25	Hardwood	29	Regeneration	CC	Summer/fall
26	Hardwood	16	Quality hardwood	Thin	Fall
27	Hardwood	64	Softwood, Q hardwood	Group Sel/STS	Fall
28	Hardwood	47	Quality hardwood	Thin	Fall
29	Hardwood	9	Regeneration	CC	SFW
30	Mixedwood	16	Softwood and Q hardwood	Group Sel/STS	Fall/winter
31	Hardwood	17	Regeneration	CC	SFW
32	Hardwood	29	Quality hardwood	Thin	Fall/winter
33	Hardwood	16	Regeneration	CC	SFW
Sum		1036			

Table KEY:

Harvest Method: the silvicultural prescription, or type of harvest proposed for a given Unit.

Group Selection= small openings averaging 1/2 acre, spaced throughout, and treating up to 20 % of a Unit.

STS= Single Tree Selection, an uneven age management system that retains a representation of existing species and ages of trees while reducing stand density to an approximate Basal Area of 80 to 90 square feet.

CC= Clearcut, a cut method that removes all merchantable trees except in reserve patches, and creates an opening for regeneration of new trees.

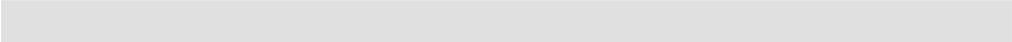
Thin = Thinning a stand by removing smaller trees, damaged trees and low value or short lived trees to a Basal Area of 70 square feet.

Forest Type – represents the primary species composition of the Unit.

Treatment objective –harvest methods are designed to meet the Purpose and Need for treatment in each Unit, resulting in development of a particular type of vegetative habitat.

Operating Season - Time of year when harvest activities are scheduled to occur. Operating is allowed during the specified season. Activities may occasionally occur outside these periods when soil conditions and other resource considerations allow.

SFW= Summer, Fall, and Winter operating seasons.



C. Connected Actions Under All Action Alternatives

- To insure regeneration objectives are met, pre-commercial release of existing regeneration on up to 100 acres in group selection and single tree selection units may be implemented;
- Move Bog Brook Trailhead onto National Forest land or onto Town of Jackson lands with an Easement or Agreement, including approximately 750 feet of connecting trail to the existing trail would be needed.
- Remove delapidated structures near the current trailhead for Bog Brook Trail and create a 4 acre permanent Wildlife Opening at the site with access to allow for periodic maintenance of the opening.

D. Project Alternatives Considered and Deleted from Further Study

- **Analyze an alternative that proposes only uneven-aged management.** This alternative was considered and deleted from further study because it does not meet an important component of the Purpose and Need for the proposed action as directed in the White Mountain National Forest Plan. One of the goals for MA 2.1 lands is to provide a balanced mix of habitats for all wildlife species. The Purpose and Need for Action for this project specifically includes creation of early successional habitat. A detailed discussion regarding the need for early successional habitat is presented in the Need for Action and Need for Change sections of Chapter 1. The Wildlife effects section in Chapter 3 discusses effects of the No Action Alternative and the anticipated habitat diversity that even-aged and uneven-aged management would have. Harvest treatments in the HMUs during the 1950's thru the 1970's are well-stocked hardwood pole sized stands and contain mature northern hardwoods that would benefit from thinning. These needs eliminated an un-even aged management only alternative from further detailed study.
- **Summer/Fall Only Harvest for all units.** This alternative was discussed because it would eliminate the concern for winter dual use of the roads used as Nordic trails. It would also reduce concerns for safety on Carter Notch Road in winter where steep or icy roads could be a concern. However, previous sales (including Miles Brook) were winter logged and hauled without incident. Restricting the project to summer/fall only would require removal of several units and portions of units due to moist soils which can be logged in the winter. Additional time would be needed to administer the contract and complete the project.
- **Winter Only Harvest for all units.** This alternative was suggested as a means to reduce wear or potential damage to Carter Notch Road from haul during hot summer months. Operating restrictions can be employed by the Forest Service if road surfaces become endangered and the Town of Jackson can apply load limits to the road for the same reason during hot periods. This alternative would eliminate the opportunity to meet project objectives to scarify soils and foster germination in clearcut units and one shelterwood unit. Additional time would also be needed to complete the project.
- **Exclude harvest treatments and road access within the 2004 Inventoried Roadless Area.** This alternative is deleted because it fails to address vegetation management and wildlife objectives within a large portion of Management Area 2.1 within these HMUs. Though these areas were identified as having roadless character, they are assigned to Management Area 2.1 in the Forest Plan and Record of Decision. The Proposed Action and Alternative 3 will be analyzed in detail and displayed in the analysis of direct and cumulative affects to Roadless Areas in Chapter 3 of the Environmental Assessment.

E. Comparison of Alternatives

The following table compares the Alternatives by measurement indicators.

Table 5. Summary of Potential Effects

Measurement Indicators	Alternative 1	Alternative 2	Alternative 3
Nordic Ski Trails			
Effects to existing Nordic Ski Trails	No Trail Closures	Potential winter long closures on Boggy Brook, Quail, UST and the southern portion of the Wildcat Valley Trail for 2 to 3 seasons	Potential winter long closures on Boggy Brook and the portion of Wildcat Valley Trail that lies on Carter Notch Road for 2 to 3 seasons
Additional miles of Nordic Ski Trail	None	None	1 mile of new Nordic trail connecting Boggy Brook Trail to East Pasture Trail
Scenery			
Estimated acres of new openings seen from identified viewpoints @	None	Carter Notch: 0 acres Black Mountain: 3-4 acres Black Mtn Cabin: 1-2 acres Halls Ledge: 5 acres Attitash: 0 acres Wildcat Peak: 27-33 acres Mt. Washington: 35-48 acres Iron Mountain: 26-33 acres	Carter Notch: 0 acres Black Mountain: 3-4 acres Black Mtn Cabin: 1-2 acres Halls Ledge: 5 acres Attitash: 0 acres Wildcat Peak: 27-33 acres Mt. Washington: 35-48 acres Iron Mountain: 26-33 acres
Overall Effect to Wildcat Wild and Scenic River	None	Minimal effects to the corridor and the outstanding remarkable values for which it was designated.	Minimal effects to the corridor and the outstanding remarkable values for which it was designated.
Effect to Wild River Roadless Character			
Acres of Regeneration Harvest added by this proposal *	None	117 acres within the Wild River Roadless Area *	117 acres within the Wild River Roadless Area *
Miles of Improved Roads added by this proposal **	None #	0.1 miles of new road construction in the Wild River Roadless Area **	0.1 miles of new road construction in Wild River Roadless Area**
Wildlife and Aquatics			
Openings created <>	None	184 acres created	184 acres created
Softwood habitat ^^	None	364 acres created	364 acres created
Aquatic and Riparian	None	5 to 6 miles improved streams	5 to 6 miles improved streams
Increase Timber Quality and species composition	None	Selective harvest treatment on 462 acres	Selective harvest treatment on - 462 acres
Water Quality Effects	Problem areas persist-	Improved drainage on roads and trails offset short term increases in sedimentation	Improved drainage on roads and trails offset short term increases in sedimentation

@ The most critical viewpoint was used to estimate openings seen for each alternative and represents the estimated maximum acres seen from that viewpoint. The **sum** of all openings (clearcuts) expected to be seen is shown. These estimates are less than the unit size due to screening by topographic features and by timber stands at the front edge of viewed openings, and by reserve patches required within these openings.

* The 71,387 acre Wild River Inventoried Roadless Area (WRRRA) currently includes 346 acres of regeneration harvest that has occurred in the last 10 years. This proposal adds 117 new acres for a total of 463 acres of regeneration harvest. In order to remain roadless, less than 20% of the 71,387 acre WRRRA can have regeneration harvest implemented within the last 10 years. This makes the allowable acreage over 14,000 acres. None of these alternatives will approach this magnitude or potentially change the roadless designation based on cumulative regeneration timber harvest activities.

**In order to remain roadless, the WRRRA must have less than ½ mile of improved roads per 1,000 acres. Currently 10.7 miles exist in the WRRRA (a road density of 0.15 miles per 1000 acres). To reach ½ mile per 1,000 acres, a total of 35.7 miles of improved road would need to be present in the WRRRA. Alternative 2 and Alternative 3 each add 0.1 miles of improved road maintaining the road density at 0.15 miles per 1000 acres. This is well below the threshold for roadless designation.

Total Allowable miles of roads within the IRA is 35.7 miles.

<> Openings Created with clearcuts that generate early successional habitat.

^^ Softwood habitat improvement benefits snowshoe hare, deer, many bird species, marten, and lynx.

Appendix A -Project Mitigations

In addition to all applicable Forest-wide standards and guidelines listed in the Forest Plan (Chapter 2), the following specific mitigation and coordination measures are planned for all action alternatives. Individual mitigations benefit several resources and may mitigate several potential concerns.

Design Features and Mitigation Measures Common to All Action Alternatives

The Proposed Action has been designed and would be implemented in accordance with Forest Plan Forest-wide and MA 2.1 standards and guidelines (USDA-Forest Service, LRMP 2005).

Design Features are highlighted applications of the Forest Plan standards and guidelines. They clarify, where necessary, how these standards and guidelines may apply to specific actions in the project proposal. Design Features for action alternatives include:

- In harvest units 4 and 32, which contained some locations with shallow soils, tree tops and limbs not scattered on skid trails will be left scattered on-site (*LRMP, Forest-wide, Vegetation Management, S-3, p-2-29*)

Mitigation measures are necessary when a specific situation requires that Forest Plan standards and guidelines be exceeded to meet project objectives or to reduce unwanted effects. Mitigations for action alternatives include:

- Retain disease resistant beech trees as well as trees with an abundance of bear claw marks where appropriate (*LRMP, Forest-wide, Wildlife, exceeds S-1 and S-2 on p 2-35*);
- During marking of the proposed units, protect raptor nest trees and report their presence to the District Biologist, who determines if further mitigation is needed.
- Where harvest units abut NFSR 233, and all hiking trails within or adjacent to units, logging slash will be removed within a 50 foot zone. (*LRMP, Forest-wide, Vegetation Management, exceeds G-2, p 2-29, and G-8, p 2-30*);
- Tops and limbs from harvested trees will be scattered on skid trails where needed to reduce compaction, soil displacement and erosion during and after operations (*LRMP, Forest-wide, Vegetation Management, exceeds G-5, p 2-30 and Water Resources, exceeds S-1, p 2-30*)
- Hazard safety signs will be posted on Carter Notch Road during harvest activities (*Specific to Project Area*).

Appendix B - How to Comment on Than Project

In June 2003, the USDA-Forest Service issued new implementing regulations (Title 36, Code of Federal Regulations, Part 215) for notice, comment and appeals. The following instructions incorporate these changes. The new regulations allow only those who submit *timely and substantive* comments to be eligible to appeal my final decision. To assure that I receive and can consider your comments in my decision, please review these instructions carefully.

TO BE TIMELY your comments must be received within 30 calendar days following the publication of the legal notice in the Manchester Union Leader. When the comment period ends on a Saturday, Sunday or Federal holiday, comments will be accepted until the end of the next Federal working day. If you do not have access to the Union Leader, please call the Saco Ranger Station at 603-447-5448, ext. 120 (TTY 603-447-3121) for the published date.

TO BE SUBSTANTIVE your comments must be within the scope of the proposed action, specific to the proposed action, have a direct relationship to the proposed action and include supporting reasons for me to consider in the EA and my decision. In this case, the proposed action includes all of the alternatives. Substantive comments should enhance the project analysis and provide meaningful and useful information about your concerns.

It is the responsibility of persons providing comments to submit them by the close of the comment period. Individuals and organizations wishing to be eligible to appeal must provide the following information:

- 1) Name, address and telephone number;
- 2) Title of the proposed action (Than Project)
- 3) Specific substantive comments on the proposed action, along with supporting reasons the Deciding Official should consider in reaching a decision; and
- 4) Signature or other verification of identity upon request; identification of the individual or organization who authored the comments(s) is necessary for appeal eligibility;

Comments should be directed to Saco District Ranger Terry Miller as follows:

- Written comments must be postmarked by the Postal Service, e-mailed, FAXed or otherwise submitted by 11:59 pm ET on the 30th calendar day following publication of the legal notice.
 - Letters should be submitted to Terry Miller, District Ranger, 33 Kancamagus Highway, Conway, NH 03818. Hand delivered letters should be submitted during these office hours: Monday through Saturday, 8:00am-4:30pm;
 - FAX comments should be sent to 603-447-8405
 - E-mail comments should include an identifiable name and be sent to: (comments-eastern-white-mountain-saco@fs.fed.us). Comments submitted as electronic documents must be in plain text (.txt), rich text, format (.rft) or Word (.doc) format. When you submit your comments to this e-mail address, you should receive an electronic acknowledgement as confirmation of receipt. If you do not receive acknowledgement, it is your responsibility to ensure timely receipt by other means.
 - Oral comments may be submitted Monday through Friday 8:00am to 4:30pm, either by phone (603-447-5448 x120) or in person; and must be received by the close of business on the 30th calendar day following publication of the legal notice.

Appendix C

Where this Project is in the Forest Service NEPA Process

NEPA is the Forest Service decision-making process. An acronym for the National Environmental Policy Act of 1969, NEPA provides opportunities for interested parties to give their ideas and opinions about resource management. This input is important in helping us identify resource needs, which will shape the alternatives evaluated and lead to the formation of a decision.

This form shows the steps of the NEPA process, and where the attached proposal is in that process.

Step One - Need for a Project

The Forest Service or some other entity may identify the need for a project.
YOU may bring the need for a project to the attention of the Forest Service.

Step Two - Develop Project Proposal

The Forest Service or a project proponent develops detailed, site-specific proposal
YOU may be a proponent who develops a proposal or *YOU* can share input and ideas



Step Three - Scoping and Formal Public Comment Period

The Forest Service solicits public input on the site-specific proposal to define the scope of environmental analysis and range of alternatives to be considered.
This combines the scoping period and the formal 30-day public comment period.
YOU provide timely & substantive comments on the analysis during Comment Period

Step Four - Develop Reasonable Range of Alternatives

If proposal fits categorical exclusion: Forest Service makes & documents decision
If scoping determines need for EA or EIS: Forest Service develops alternatives
YOU suggest alternatives to the proposed action during the scoping process

Step Five – Environmental Analysis

Forest Service completes analysis of environmental effects and identifies preferred alternative

Step Six – Decision

Forest Service makes decision to implement one of the alternatives
YOU can review decision; you can appeal if you disagree and you have “standing”
Standing: You provided substantive comments during formal period (Step 5)

Step Seven - Appeal

Forest Service allows public 45 days following legal notice of decision to appeal
YOU may file formal Notice of Appeal

Step Eight - Implementation

Forest Service implements the project
YOU may contribute labor, equipment or funding to implement the project

Step Nine - Monitor and Evaluate

Forest Service monitors and evaluates project results
YOU provide feedback on the project to the Forest Service

Appendix D - Glossary

Basal Area (BA) - The area of the cross section of a tree a 4.5 feet above the ground. Generally expressed as total Basal Area per acre. Under uneven-aged management, usually 30 to 40 percent of the basal area is removed. Under even-aged management, 30 to 100 percent of the basal area is removed depending upon the needed silvicultural treatment.

Desired Future Condition. A goal, as stated in the Forest Plan, as to what a specific area should look like in the future.

Ecological Classification – a multifactor approach to categorizing and delineating, at different levels of resolution, areas of land and water having similar characteristic combinations of physical environment, biological communities, and human factors.

Ecological Land Type (ELT) – an area of land with a distinct combination of natural, physical, chemical, and biological properties. In an undisturbed state and at a given stage (sere) of plant succession, an ELT is usually occupied by a predictable plant community.

Even-aged Management – management that regenerates and maintains a stand with a single age class. Even aged stands are composed of a single age class in which the range of tree ages is usually plus or minus 20 percent of the rotation. Harvest methods producing even-aged regeneration aged stands in this project include:

- **Clearcut:** a removes essentially all trees not designated to be “reserved”, in one operation and results in a single aged stand.

Uneven-aged (selection) methods - Uneven-aged management is a planned sequence of treatments designed to maintain and regenerate a stand with three or more age classes. Uneven-aged stands are either intimately mixed or in small groups. An un-even aged management system is a planned sequence of treatments designed to maintain and regenerate a stand with three or more age classes. Examples of uneven-aged treatments include group selection and single tree selection.

- **Group Selection** - A harvest method that describes the silvicultural system in which trees are removed periodically in small groups, resulting in openings that do not exceed an acre or two in size. This leads to the formation of an uneven-aged stand, in the form of a mosaic of age-class groups in the same forest stand.
- **Single-Tree Selection** - Individual trees of all size classes are removed more or less uniformly throughout the stand, to promote growth of the remaining trees and to provide space for regeneration.

Thinning - a cultural treatment made to reduce stand density of trees primarily to improve growth, enhance forest health, or recover potential mortality. Thinnings are not regeneration treatments. Thinning interval is the period of time between successive thinning entries. Thinning intensity is the combined effect of thinning severity and thinning frequency, usually expressed as the volume removed divided by the number of years between successive thinnings.

Forest Product - Sawtimber, pulpwood, and chipwood are the raw products utilized from a tree in a minimum piece length of 8 feet.

Sawtimber minimum piece specification requires a minimum diameter outside bark of 9.0 inches for softwood and 11.0 inches for hardwood and 40 percent sound wood.

Pulpwood minimum piece specification requires a minimum diameter outside bark of 5.0 inches and 50 percent sound and reasonably straight.

Forest Type – A category of forest usually defined by its vegetation, particularly its dominant vegetation, based on percentage cover of the dominant trees. Type is also referred to as stand type.

Habitat Management Unit (HMU) - A large unit of land with boundaries based on landforms and which includes a mix of habitat types. Existing acres of a community type by age class change over time and are projected to a future year to estimate expected future condition.

Habitat Type - A small unit of land from a few to over 100 acres lying within a given climatic mineralogical zone and supporting a distinct successional sequence of vegetation growing on a unique type of soil material.

Hardwood – Trees having vessels and rays, and belonging to the botanical group Angiospermae.

Indicator Species - A plant or animal species adapted to a particular kind of environment. The arrangement of habitats (by tree species and age group) reflects requirements for selected wildlife species. They are designated a management indicator species. Their presence is sufficient indication that specific habitat conditions are also present. These species represent groups of other species with similar habitat requirements.

Interdisciplinary (IDT) Team - A group of individuals with skills for management of different resources. An interdisciplinary team is assembled because no single scientific discipline is sufficient to adequately identify and resolve issues and problems. Team member interaction provides necessary insight to all stages of the process.

Management Area. A specific geographic location on the WMNF where specific management direction will be applied.

Management Indicator Species (MIS). Species whose presence in certain locations indicates a given environmental condition. Their population changes are believed to indicate effects of management activities on a number of other species.

Mitigation Measure. Includes avoiding an impact altogether by not taking a certain action or part of an action; minimizing an impact by limiting the degree or magnitude of an action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or compensating for the impact by replacing or providing substitute resources or environments.

Mixedwood. – A stand composed of both hardwood and softwood species.

Monitoring. The collection of site specific information gathered over time by measuring change in an indicator or variable to determine the effects of resource management treatments.

Openings:

Permanent openings. An upland area withdrawn from timber production and managed for wildlife habitat. Trees and shrubs may or may not be present. If trees are present, they could occur in clumps and/or scattered through the area.

Temporary openings. Openings that result from timber harvest activities in an area where nearly all trees are removed. Many wildlife species that utilize openland habitat, utilize these areas until tree regeneration dominates the stand. Temporary openings can provide habitat for openland wildlife species for 5-10 years. These areas are considered temporary openings until the regeneration exceeds 10 feet in height.

Regeneration: the reproduction of trees via seedlings and saplings in a stand, and occurring promptly after the previous stand or forest is removed.

Riparian Management Zone - A term that includes stream channels, lakes, adjacent riparian ecosystems, flood plains, and wetlands.

Road reconstruction - rebuilding a road to the standard originally constructed. An example would be replacing temporary drainage structures, temporary removal of waterbars or other drainage features to allow for traffic, clearing vegetation that obstructs visibility and smoothing and grading road surfaces.

Road construction – building new road or building road to a significantly higher standard than its current condition.

Scoping. Identifying and focusing attention on public issues and opportunities related to a proposed action, during the analysis phase. Public involvement through public scoping results in informed decisions, cost-effective analysis, and increased credibility.

Silviculture - A combination of actions whereby forest stands are tended, including harvest of trees, modify forest types, and convert stands to even age, uneven aged and/or early successional ages.

Softwood - Trees belonging to the botanical group gymnospermae.

Stand (Forest) - A community of naturally or artificially established trees of any age sufficiently uniform in composition, constitution, age, spatial arrangement, or condition to be distinguishable from adjacent communities, thereby forming a silvicultural or management entity. A Hardwood Stand is defined as a stand which at least 75 percent of the overstory and understory are hardwood trees. A Softwood Stand is defined as a stand which at least 65 percent of the overstory and understory is softwood (conifer) trees. A Mixed wood Stand is defined as a stand with hardwoods trees mixed with softwoods trees. The 25 to 65 percent of this stand consists of red spruce, balsam fir, and eastern hemlock.

Stream - Non-perennial and perennial are two types of stream that the quantity of water can be measured.

Intermittent Stream - Streams with a defined channel that the quantity of flowing water can be measured except during the dry summer months.

Perennial Stream - Streams with a defined channel that the quantity of flowing water can be measured year round.

Volume - The measure of quantity forest products (sawtimber, pulpwood, and chipwood). The cubic equivalent of a piece of lumber 12 inches wide, 12 inches long, and 1 inch thick is known as a board foot. A MBF is the measure for 1000 board feet.