



File Code: 1950/5400

Date: September 11, 2008

Dear Planning Participant,

This letter is to invite you to provide written comments on the attached Environmental Assessment (EA) for the proposed Mittersill-Sentinel Mountain Land Exchange.

The State of New Hampshire (State) Department of Resources and Economic Development has proposed to exchange approximately 100 acres of land known as "Mittersill" for the Sentinel Mountain State Forest (Sentinel) in the Town of Piermont, NH. Mittersill lies on federal land and is administered by the White Mountain National Forest. Mittersill lies adjacent to Franconia State Park/Cannon Mountain Ski Area in the Town of Franconia, NH. This 30-day comment period gives the public the opportunity to provide meaningful input on this environmental analysis before I make a final decision.

Alternative 1 is the action proposed by the State and is identified as the Proposed Action in the scoping report mailed in January, 2008 and in the enclosed analysis. Alternative 2 is the No Action alternative, which, in effect, would deny the State's request for the exchange at this time. I have identified Alternative 1 as the preferred alternative.

A Legal Notice of the 30-day comment period for this EA is being published in the *New Hampshire Union Leader*. This EA for 30 Day Comment is also posted on the White Mountain National Forest web page: www.fs.fed.us/r9/forests/white_mountain/projects/projects.

The 30-day comment period begins on the day after publication in the newspaper of record, the *New Hampshire Union Leader*. Those who responded to the scoping report are each being sent a copy of the 30 Day Comment Report with this cover letter. If you provide comments during this 30-day comment period, you will be eligible to file an administrative appeal of my decision; you will not be eligible to file an appeal if you responded only to the scoping notice.

If you wish to submit comments regarding the Mittersill-Sentinel Mountain Land Exchange, please follow the guidelines on the following page. To be effective in my consideration of your comments, please be certain that your comments are specific to the proposed action or this analysis, have a direct relationship to the proposed action, and include supporting reasons for me to consider (36 CFR 215.2). For more information, you may contact Susan Mathison at (603) 536-1315, ext. 4014.

Thank you for your interest in the White Mountain National Forest.

Sincerely,

/s/ Thomas G. Wagner
THOMAS G. WAGNER
Forest Supervisor



How to Comment on the Mittersill-Sentinel Mountain Land Exchange

The following instructions explain current regulations for formal notice, comment, and appeal of projects. The regulations allow only those who submit timely comments to be eligible to appeal a final decision. If you decide to submit comments, they should enhance the project analysis and provide meaningful and useful information about your concerns.

TO BE TIMELY your comments must be received within 30 calendar days following the publication of the legal notice in the New Hampshire 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 Pemigewasset Ranger Station at 603-536-1315, (TTY 603-536-3281) for the published date.

If you choose to provide substantive comment, it is your responsibility to provide your comments by the close of the comment period. Individuals and organizations wishing to be eligible to appeal must provide the following information:

- 1) Your name, address and telephone number;
- 2) Title of the proposed action (Mittersill-Sentinel Mountain land Exchange);
- 3) Specific comments on the proposed action, along with supporting information 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;

Please direct your comments to Forest Supervisor Thomas G. Wagner 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 Thomas G. Wagner, Forest Supervisor, 1171 NH Route 175, Holderness, NH, 03245, ATTN: Susan Mathison. Hand delivered letters should be submitted during these office hours: Monday through Friday, 8:00am-4:30pm;
- FAX comments should be sent to 603-536-5147.
- E-mail comments should include an identifiable name and be sent to: (comments-eastern-white-mountain-ammo-pemi@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 (603-536-1315) or in person; and must be received by the close of business on the 30th calendar day following publication of the legal notice.

White Mountain National Forest



United States
Department of
Agriculture

Forest
Service

Eastern
Region



Mittersill— Sentinel Mountain Land Exchange

Environmental Assessment

Towns of Franconia & Piermont
Grafton County, NH

September 2008



For Information Contact: Susan Mathison
White Mountain National Forest
1171 Route 175
Holderness, NH 03245
Telephone: 603 536-1315 Extension 4014
FAX: 603 536-5147

**This document is available in large print.
Contact Susan Mathison at the
Pemigewasset Ranger District
603 536-1315
TTY 603 536-3281**

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The Taft Trail at the summit of Cannon Mountain, looking toward Littleton. 1938 US Forest Service photo by ?? Muir



Chapter 1: Purpose and Need

1.1 Introduction

The Proposal and This Analysis

The State of New Hampshire Department of Resources and Economic Development (DRED) has proposed to exchange approximately 100 acres of land known as “Mittersill” for all or a portion of Sentinel Mountain State Forest (Sentinel). Mittersill lies on federal land and is administered by the White Mountain National Forest (WMNF). Mittersill encompasses the upper portion of a now-dormant ski area and lies adjacent to Franconia State Park/Cannon Mountain Ski Area.

The purpose of the National Environmental Policy Act (NEPA) process is to help public officials make decisions that are based on an understanding of environmental consequences, and to take actions that protect, restore, and enhance the environment (40 CFR 1500.1(c)).

In compliance with NEPA, this Environmental Assessment (EA) discloses the potential environmental effects of implementing this land exchange. It also provides supporting information for the preparation of an Environmental Impact Statement or of a Finding of No Significant Impact. This EA evaluates the effects of this proposed exchange and fulfills the requirements of the NEPA and other relevant federal and state laws, regulations, and policies.

This exchange is being considered under the authorities of the Forest Service Omnibus Act (Forest Service Omnibus Act of October 23, 1962 (76 Stat.1157;16 U.S.C. 555a)), the National Trails System Act (National Trails System Act of October 2, 1968 (82 Stat. 922;16 U.S.C. 1246), and the Federal Land Policy and Management Act of October 21, 1976(FLPMA) (90Stat. 2755 as amended; 43 U.S.C. 1701, 1715, 1716, 1717).

The Proposal

Brief Description of the Parcels

The exchange proposal involves two parcels of land, as described below.

National Forest System lands (Mittersill):

The federal parcel includes approximately 100 acres of National Forest System (NFS) land on a portion of the former Mittersill Ski Area located in the Town of Franconia, Grafton County, New Hampshire.

The portion of Mittersill that lies on National Forest System land includes elevations from 2,100 to 3,600 feet. Vegetation transitions from mid-elevation birch to high elevation spruce/fir/birch stands across steep, rugged terrain. The vegetation at the upper elevations is increasingly stunted and dense. At the uppermost sections of Mittersill and along the ridgeline to Cannon Mountain, vegetation is sparse and largely wind-swept, typical of a mountain top condition.

Mittersill includes a network of dormant ski trails that were cleared in the 1930s. Most of these remain in an open condition, with grasses, small shrubs, and seedlings scattered across the trail openings.

The forested areas above 2,500 feet elevation are considered suitable northern range habitat for the Bicknell's thrush, a Region 9 Regional Forester Sensitive Species (Sensitive Species).

Preliminary fieldwork indicates that mountain avens (*Geum peckii*), another Sensitive Species, occurs in the 2,500 elevation band across several ski trails. Mountain avens is a low-growing herbaceous plant in the rose family. It is a globally rare species that is nearly endemic to the White Mountains of New Hampshire. The WMNF contains over 90 percent of the world population of this species.

Mittersill borders Franconia State Park and the Cannon Mountain Ski Area (Cannon), which is owned and operated by the State of New Hampshire. The 100-acre parcel includes existing ski trails that were cleared in the 1930s by the Civilian Conservation Corps and Franconia residents. The Taft Trail, between the top of Cannon Mountain and the top of Mittersill, is believed to be one of the first ski racing courses in the United States. The other trails encompassed in the proposed exchange were developed as the upper portion of the now-dormant Mittersill Ski Area; it is this portion of the former Mittersill ski area that lies on NFS lands. The lower portion of the former Mittersill Ski Area trail network lies on state-owned land.

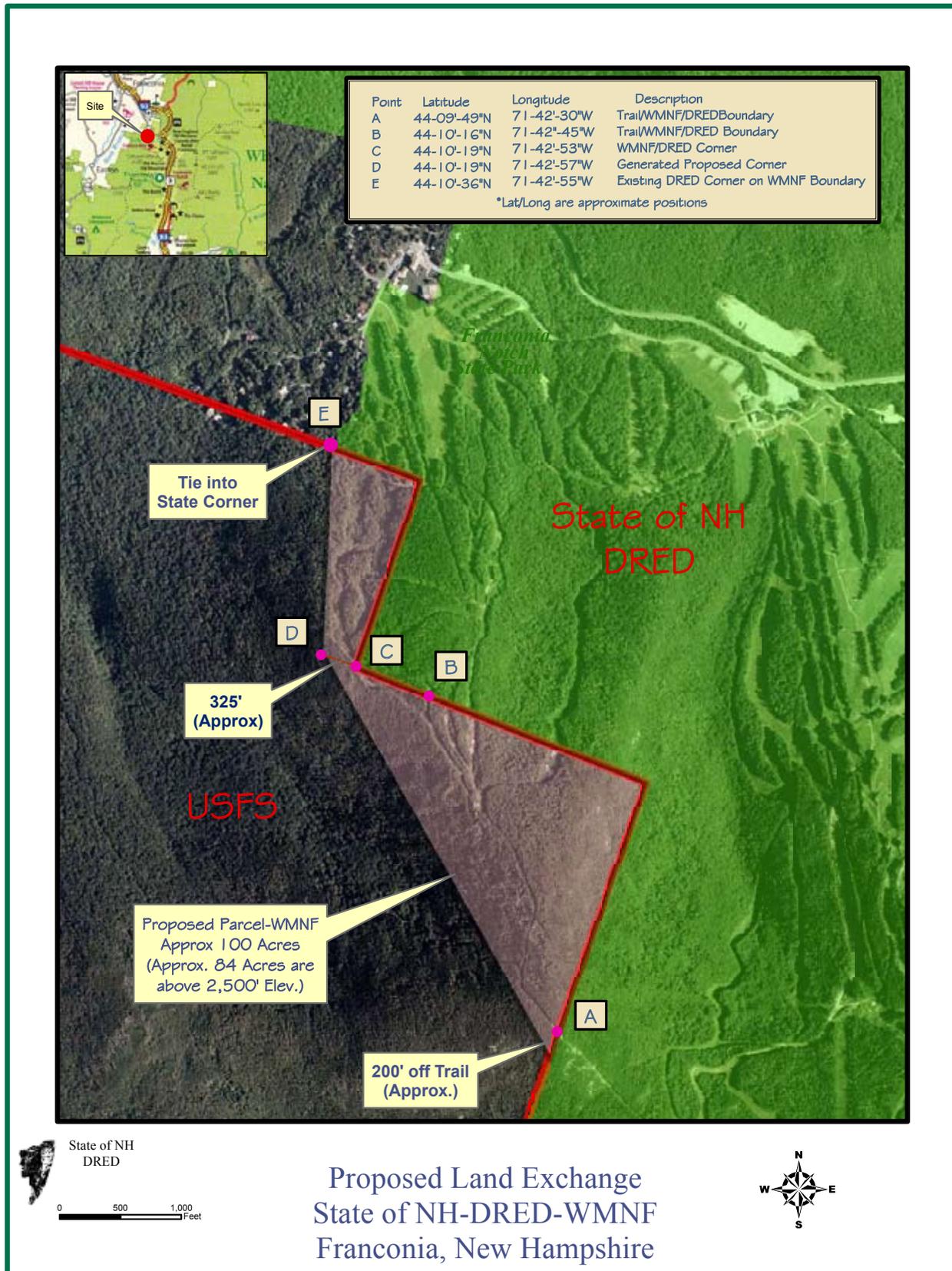
Mittersill was operated as a ski area beginning in the 1930s; by the late 1980s, the Franconia Development Company (FDC) was operating the Mittersill Ski Area under a permit from the US Forest Service and a lease from the State of New Hampshire, as well as on its privately held lands. FDC terminated the permit on National Forest System lands in 1989 and concurrently transferred ownership of the privately held, lower portions of Mittersill to the State of New Hampshire.

Remnant structures at Mittersill include seven lift towers, an off-loading ramp, lift shack and return wheel building, and miscellaneous lumber. No other improvements are known to remain on-site.

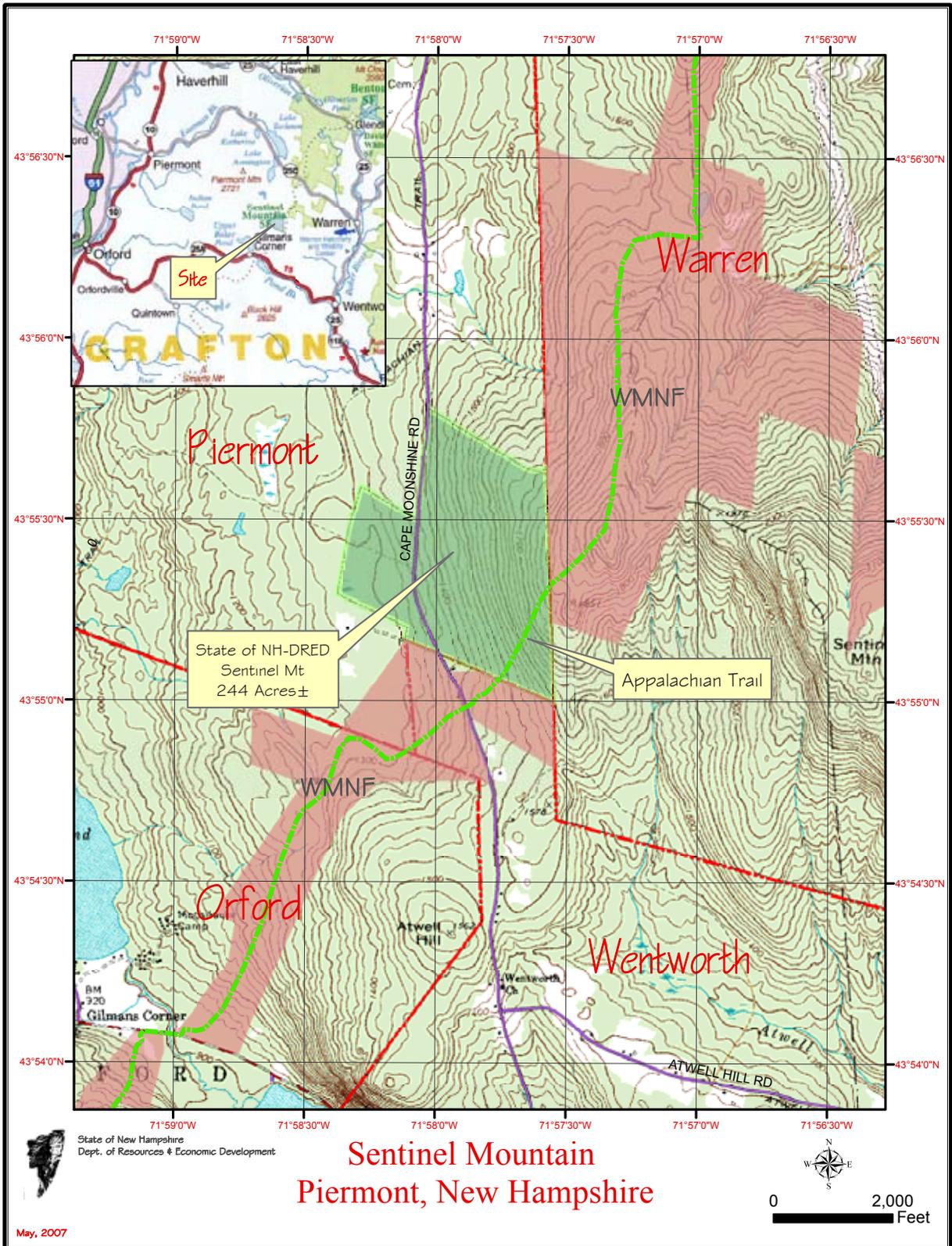
The uppermost section of the proposed exchange lies approximately 200 feet southwest of, and parallel to, approximately 600 feet of the Taft Trail that traverses the ridgeline between the summits of Cannon and Mittersill. The proposed exchange includes an area approximately 200 feet wide and 600 feet long, or about three acres, of the uppermost section of the 11,158-acre Kinsman Inventoried Roadless Area (Forest Plan, p. C-101-108). The boundary configuration proposed by the state is designed to accommodate the existing network of serpentine ski trails while minimizing the number of boundary corners and maintaining a cost-effective property boundary.

If the exchange is implemented, the state plans to re-establish skiing on the existing network of historic trails within the Mittersill Ski Area (Map 1). The state's Master Development Plan for Cannon Ski Area includes plans to provide a remote, challenging backcountry skiing experience on the existing trails at Mittersill (Master Development Plan, Cannon Mountain Ski Area, as amended April 4, 2008).

Map 1.



Map 2.



State Lands (Sentinel):

The proposed exchange would include approximately 244 acres of state-owned land in the Sentinel Mountain State Forest in the Town of Piermont, New Hampshire (Map 2). The State Forest is located between two adjacent parcels of land currently administered by the US Forest Service in the Town of Piermont. It is characterized by moderately sloped terrain ranging from approximately 1,300 to 1,800 feet in elevation; vegetation is dominated by northern hardwood, mixedwood, and softwoods stands.

While Sentinel includes approximately 244 acres, the precise number of acres included in the exchange will be determined after independent appraisals of both state and federal parcels have been finalized; the proposal is intended to convey parcels of equal value. If the values of the two parcels are close, the remaining parcel at Sentinel may be so small that it would make management of it difficult or impossible. In this instance, the WMNF may equalize the exchange through a cash payment to the state and, in so doing, acquire the entire State Forest. Final values, precise acres, and cash equalization for this proposed exchange will be disclosed in the Decision Notice.

A 0.25 mile section of the Appalachian National Scenic Trail (AT) crosses the southeast corner of Sentinel. This isolated section is one of the few sections of the AT in New Hampshire that is not currently administered by the US Forest Service. Sentinel is bisected by the gravel-surfaced Cape Moonshine Road. It is bounded on the northeast and southwest by US lands and on the northwest and southeast by private lands.

Brief History of the Proposal

Over the past 15 years, the State of New Hampshire has intermittently considered and proposed the acquisition of the federally owned portion of Mittersill. Beginning in the late 1980s when the authorization for use of federal lands was terminated by the authorized permittee, the Franconia Development Corporation, the state began to express interest in the acquisition of the portion of Mittersill that lies on lands administered by the WMNF. Again in 1990, plans were discussed for Cannon's incorporation of Mittersill, the "cradle of northeastern skiing" (Boston Globe, March 25, 1990). The Cannon Master Development Plan described plans for use and/or acquisition of the upper portion of Mittersill (Sno.engineering, October 28, 1998).

The White Mountain National Forest began to undertake an environmental analysis in 1999 for a land exchange that would include Mittersill, but progress on that analysis was terminated by the state (DRED, press release, August 31, 1999).

This proposed exchange has evolved from the 1999 request for 525 acres to the current proposal of approximately 100 acres, the minimum area to include the footprint of Mittersill ski trails authorized in the Forest Service Special Use Permit issued to the FDC. Sentinel was selected by the state as a potential exchange property in part because of its location isolated from other state holdings, its proximity to existing NFS lands, as well as the included, non-federal segment of the AT.

The current proposal would:

- Exchange equal value parcels, as determined by appraisal, between the State of New Hampshire and the Forest Service. (If an impractically small portion of Sentinel would remain with value-for-value exchange, a cash equalization up to 25 percent of the value of Mittersill may be provided by the WMNF in order to acquire a parcel that can be efficiently managed and administered.) (Forest Service Omnibus Act of October 23, 1962; National Trails System Act of October 2, 1968)
- Transfer all or a portion of Sentinel, encompassing approximately 244 acres and 0.25 miles of the Appalachian National Scenic Trail (AT), to US ownership, to be administered by the White Mountain National Forest.
- Transfer approximately 100 acres of National Forest System (NFS) lands, including the remnant trails of the upper portion of the Mittersill Ski Area, to the State of New Hampshire to be incorporated into the Cannon Mountain Ski Area

If the exchange is implemented, the state would re-establish skiing on the existing network of historic trails currently located on NFS lands. No new trails would be cleared or constructed on the 100-acre addition to the Cannon Ski Area; any other improvements proposed above 2,500 feet within the exchange parcel would occur within areas that were maintained for skiing operations under the former Mittersill Ski Area Special Use Permit. The portions of the previously abandoned lift which remain on NFS lands would be removed. The Cannon Ski Area Master Development Plan identifies Cannon's intention to construct a new lift in the footprint of the previous lift.

If the exchange is implemented, the WMNF would acquire Sentinel, including 0.25 miles of the Appalachian National Scenic Trail (AT). Management of the Sentinel parcel will include management of the AT corridor (defined, for this parcel, as the lands lying within 500 feet on either side of the trail tread) and management of the general forest lands beyond the AT corridor. The AT corridor would be administered according to the management direction for the AT provided in the WMNF Forest Plan (MA 8.3). The remainder of the parcel would be managed for multiple resource objectives under General Forest Management Area (MA 2.1) standards and guidelines. These management allocations — an AT management zone and the balance in general forest management — essentially mimic the historic and existing management design by which the state currently manages Sentinel along and beyond the AT corridor.

The Secretary of Agriculture is delegated specific authorities to authorize the disposal of land in a land exchange utilizing National Forest System acquired lands. The authority and supplemental authorities that authorize this proposed exchange are: Forest Service Omnibus Act of October 23, 1962 (76 Stat. 1157; 16 U.S.C. 555a); Federal Land Policy and Management Act of October 21, 1976 (FLMPA) (90 Stat. 2755 as amended; 43 U.S.C. 1701, 1715, 1716, 1717); and the National Trails System Act of October 2, 1968 (82 Stat. 922; 16 U.S.C. 1246).

The Forest Plan

This proposal, like each project proposed on the White Mountain National Forest, is being evaluated within the context of the WMNF's Land and Resource Management Plan (Forest Plan), approved in 2005 after extensive environmental analysis and public collaboration. The Plan states the goals and objectives to achieve the desired conditions, and establishes standards and guidelines to govern management activities — both Forest-wide and in each of the Forest's management areas.

Tiering to the Forest Plan

This EA is tiered to the Record of Decision (ROD) for the Forest Plan and its Final Environmental Impact Statement (FEIS). Tiering is used when information and analysis in those programmatic documents applies to this project-level analysis and can be incorporated by reference into this EA, which can then remain focused on site-specific issues. In addition to other portions of the Forest Plan, this analysis tiers to:

- The resource goals and objectives described in Chapter 1 of the Forest Plan;
- Forest-wide Standards and Guidelines in Chapter 2 of the Forest Plan;
- Management Area direction consisting of Purpose, Desired Condition of the Land, and Standards and Guidelines described in Chapter 3 of the Forest Plan; and
- Resource information and effects analyses in the FEIS.

Tiering is defined and encouraged in the implementing regulations and policy for the National Environmental Policy Act (40 CFR 1502.20, 1502.21; FSH 1909.15 22.31, 22.33).

1.2 Purpose of the Action and Need for Change

The Purpose of the Proposed Action is to:

- respond to the state's proposal for land exchange and
- implement the management direction established in the White Mountain National Forest Land and Resource Management Plan (Forest Plan).

The Need for the Proposed Action, as identified by comparing the existing conditions on the ground with the desired conditions, is to:

- provide more efficient land ownership patterns and more cost-effective administration on NFS and state-owned lands,
- provide a broad range of available recreation opportunities, and
- acquire for federal ownership one of the remaining non-federal segments of AT, providing consistent ownership and management of a portion of the Trail.

1.3 Compliance with the Forest Plan

The Forest Plan establishes guidance to acquire lands necessary to meet National Forest resource objectives and to dispose of National Forest lands that do not support Forest Service programs and do not contribute to efficient National Forest management, and to consolidate ownership and improve management efficiency. Specifically, the Forest Plan establishes lands Goals that include:

National Forest System lands will be consolidated through acquisition and exchange to facilitate restoration, protection, enhancement of public benefits, and improved management effectiveness. (Forest Plan, p. 1-6)

Forest Lands guidelines stipulate how a proposed exchange should be evaluated. Among the factors to consider, the Forest Land Adjustment Plan should be amended annually to reflect:

f) Acquisition, exchange, or interest in lands that will consolidate existing National Forest System lands, eliminate the need for right-of-way acquisition, provide access to existing NFS lands, or meet the goals and objectives of the management area surrounding the proposed acquisition or exchange.

g) Land conveyances or exchange of lands no longer needed or suitable to meet the goals and objectives of a management area, and serve a greater public need in state, county, town or other federal agency ownerships. (Forest Plan, p. 2-9)

Federal acquisition of Sentinel will consolidate ownership of the AT corridor, connecting segments of the trail on adjacent NFS lands; transferring ownership of Mittersill to the state will provide for safe and efficient operation of winter recreation opportunities along the trails of the former ski area.

The Forest Plan, therefore, provides a firm foundation upon which to consider this exchange from the Forest-level perspective. From a site-specific perspective, this analysis must also consider the Management Area (MA) designations for the specific lands to be exchanged.

The federal lands proposed for exchange (Mittersill) lie in two MA designations: MA 7.1 — Alpine Ski Areas and MA 9.2 — Alpine Ski Area Expansion (See Map 3). The MA designations, along with their respective goals and desired future conditions, are described below.

Management Area 7.1 – Alpine Ski Area:

The Forest Plan specifies the purpose of this MA to:

1. Maintain the range of recreation opportunities by recognizing the potential for alpine skiing, snowboarding, and year-round recreation activities

As indicated by designation as MA 7.1, the Forest Plan recognized the state's interest in re-establishing ski activities in the upper portion of the dormant Mittersill Ski Area.

The WMNF Forest Plan describes the Desired Future Condition for MA 7.1:

These areas will be highly developed. ... Large numbers of users may be present, sights and sounds of human activity will be readily evident, and the interaction between users will be moderate to high. Facilities are designed for use by a large number of people. Facilities including parking lots, structures, and utilities will be evident, and are designed to be compatible with the values that make the area attractive to the users.

Management and operating practices are aimed at enhancing permitted recreation activities at the area while protecting the natural resources and visual characteristics.

Vegetation will be managed to meet the objectives of the alpine ski areas ... (Forest Plan, p. 3-31).

Management Area 9.2 – Alpine Ski Area Expansion:

The Plan's designation of a portion of Mittersill as MA 9.2 is in consideration of the potential expansion of Cannon Mountain Ski Area; the expansion would provide additional public recreation opportunities.

The Forest Plan describes the purpose of MA 9.2:

1. Recognize the potential need for ski area expansion, and manage the lands so as not to preclude future ski area development.

The Forest Plan describes the Desired Future Condition for MA 9.2:

Although adjacent to heavily developed alpine ski areas, these lands generally appear natural, with little evidence of management. Existing roads and trails may provide access.

These lands are contiguous to existing ski areas, and range in size from 40 to 1,000 acres.

A variety of land characteristics will occur. In the lower and middle elevations, extensive stands of northern hardwoods dominate the landscape. Conifers, such as red and white spruce and balsam fir, will be mixed with hardwoods at mid- to lower- elevations and will dominate at higher elevations. These stands tend toward a mix of tree sizes and ages, visually dominated by large mature trees.

The proposed exchange complies with the goals and objectives of the Forest Plan and, specifically, with Management Area direction provided for the lands that include Mittersill. In addition, mitigation measures, to be identified and described in this environmental analysis (see Appendix B, Memorandum of Understanding), will be implemented in order to comply with the Forest Plan Goal for Bicknell's thrush to maintain or enhance suitable breeding habitat for Bicknell's thrush (Forest Plan, p. 1-10) and Forest Plan Rare and Unique Features Standard, Bicknell's thrush, S-1:

Projects must not result in a net decrease of suitable Bicknell's thrush habitat (Forest Plan, p. 2-16).

Management Area Designation for Acquired Lands:

A portion of Sentinel is proposed for designation as Appalachian National Scenic Trail, MA 8.3, similar to the abutting sections of AT corridor (Forest Plan, p 3-45 through 3-53). For this parcel, the boundary of MA 8.3 is defined as the lands lying 500 feet on either side of the trail tread. The Purposes outlined for MA 8.3 include:

1. Manage the segment of the Appalachian National Scenic Trail on federal lands that traverses the state of New Hampshire and the White Mountain National Forest.
2. Provide for the conservation and enjoyment of the nationally significant scenic, historic, natural and cultural qualities of the land through which the trail passes.

The remaining portion of Sentinel, to the west of the AT corridor, is proposed to be designated as General Forest Management, MA 2.1 (Forest Plan, p. 3-3 through 3-8). (See Map 3 for proposed management areas.) The Forest Plan describes the Purpose for MA 2.1 to include:

1. Provide high quality sawtimber and other timber products on a sustained yield basis.
2. Provide a balanced mix of habitats for wildlife species.
3. Provide opportunities for a full mix of recreation opportunities, from low-use hiking trails to highly developed campgrounds and Recreation Opportunity Spectrum objectives, varying from urban to semi-primitive motorized in different locations and sometimes varying by season or presence of management activities.
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.

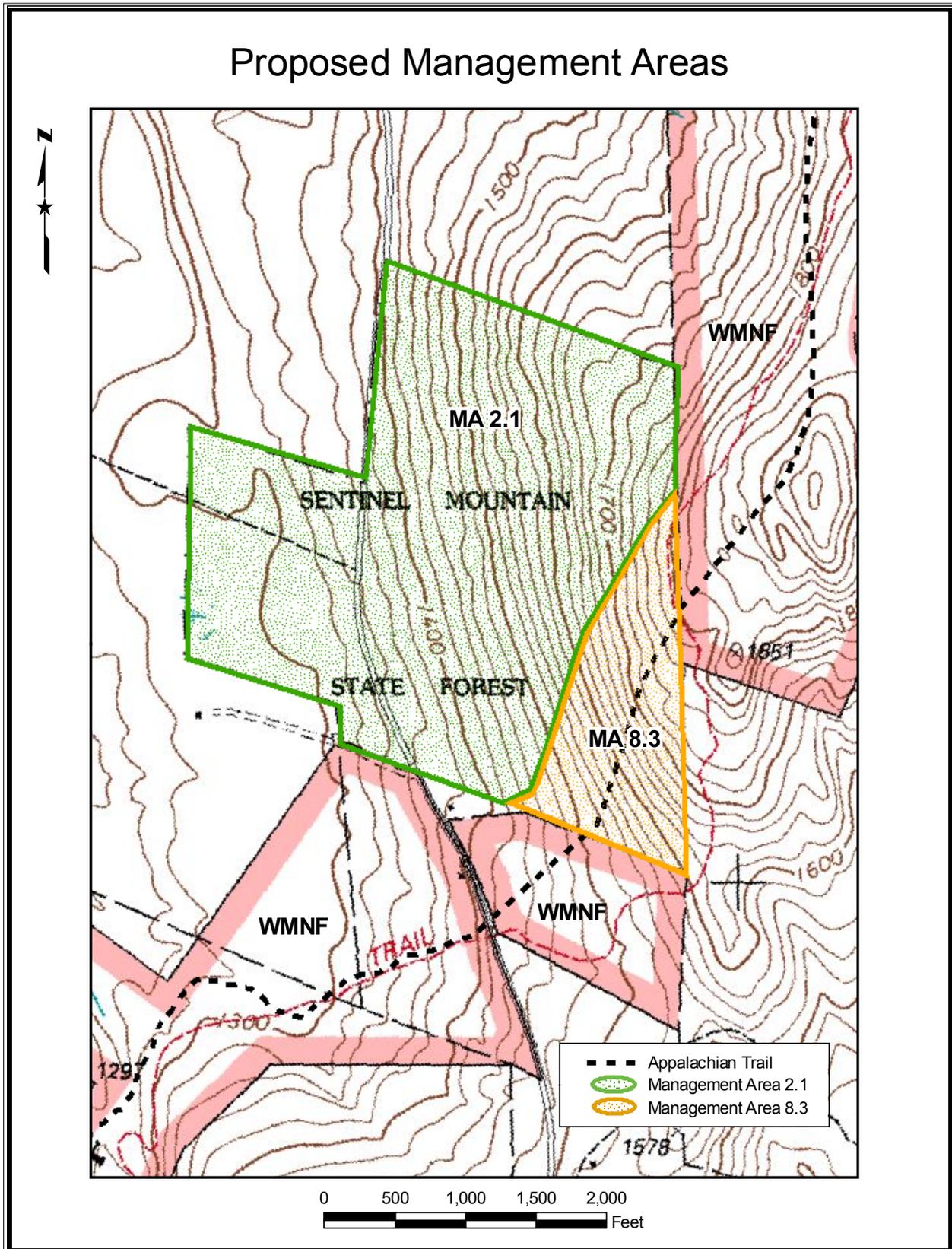
This proposed assignment of MA designations in Sentinel reflects management goals similar to what exists under state management, and is in compliance with the guidance provided in the Forest Plan's Lands Standard 4 which states:

The following procedure must be used in assigning management area prescriptions for newly acquired National Forest System (NFS) lands:

1. The tract should have the same management area classification as the surrounding National Forest land (if it has similar attributes);
or
2. If the land has attributes that are unique or different than the surrounding land, the acquired tract will be evaluated by an integrated team to decide its management and designation (Forest Plan 2-8).

Procedure 2, above, was used to determine proposed MA designations for the non-federal parcel. The interdisciplinary team relied on the analysis documented in Chapter 3 to determine the most appropriate proposed MA designations.

Map 3.



1.4 Proposed Action

The following activities are proposed to achieve the Purpose and Need and to meet the Forest Plan's Goals and Objectives for the Project Area.

The Proposed Action is to:

1. Exchange approximately 100 acres of National Forest land in the Mittersill area for an equal value, or approximately 244 acres, of Sentinel*;
2. Implement a Memorandum of Understanding (MOU) between the USDA Forest Service, White Mountain National Forest, the New Hampshire State Department of Resources and Economic Development, the State Fish and Game Department, and the New Hampshire Audubon Society which will describe how interested parties work together to protect suitable Bicknell thrush habitat subsequent to the exchange of land; and
3. Designate a portion of Sentinel as MA 8.3, Appalachian National Scenic Trail and the remainder as MA 2.1, General Forest Management, as described in the Forest Plan.

1.5 Decision to be Made

This environmental assessment will evaluate site-specific issues, consider feasible alternative(s), and analyze effects of the proposed action and alternative(s). Based on this analysis, the deciding official will make the following decisions:

1. Which alternative would best move the Mittersill – Sentinel Mountain Land Exchange toward the Desired Condition outlined in the Forest Plan, and best address the purpose and need identified for this project?
2. Which alternative best addresses relevant issues identified by the public and the interdisciplinary team?
3. Would the proposed project have any significant environmental impact to warrant further analysis in an environmental impact statement?

*If an impractically small portion of Sentinel would remain with a value-for-value exchange, a cash equalization up to 25% of the value of Mittersill may be provided by the WMNF to the state in order to acquire the entire State Forest and, thereby maximizing efficiency of management and administration by one agency.

1.6 Decision Framework

As the Deciding Official on this proposal, the WMNF Forest Supervisor will decide whether to approve the land exchange as proposed, to approve an alternative scenario, or to take no action on the land exchange proposal.

Along with the objectives noted for the purpose of this project, other decision criteria include:

- The lands and interests exchanged must be of equal value, or if not, values could be equalized by a federal payment of cash to the non-federal party, not to exceed 25 percent of the federal parcel value.
- The exchange is in the public interest and conforms to the Forest Plan (e.g., consolidate National Forest and private, state, or local government patterns, to result in more efficient management of the Forest).

Land exchanges are discretionary, voluntary real estate transactions between the federal and non-federal parties. The exchange can only be completed after the authorized officer determines that the exchange meets the requirements at 36 CFR 254.3(b): (1) The resource values and the public objectives served by non-federal lands and interests to be acquired are equal to or exceed the resource values and public objectives served by the federal lands to be disposed, and (2) the intended use of the disposed federal lands will not substantially conflict with established management objectives on adjacent federal lands, including Indian Trust Lands.

Lands would be exchanged on a value for value basis, based on current fair market value appraisals. The appraisal is prepared in accordance with the Uniform Appraisal Standards of Professional Appraisal Practice and the Uniform Appraisal Standards for Federal Land Acquisition. The appraisal prepared for the land exchange has been reviewed by a qualified review appraiser to ensure that it is fair and complies with the appropriate standards. Under the Federal Land Policy and Management Act of 1976, all exchanges must be equal in value. Forest Service regulations at 36 CFR 254.3 require that exchanges must be of equal value or equalized pursuant to 36 CFR 254.12 by cash payment after making all reasonable efforts to equalize values by deleting lands. If lands proposed for exchange are not equal in value, under the authority used for this exchange, the Forest Service may make them equal by cash payment to the non-federal party not to exceed 25 percent of the federal land value.

This proposed action also complies with 36 Code of Federal Regulations (CFR) 254, Subpart A, Forest Service Manual 5430 and Forest Service Handbook 5409.13, Chapter 30.

1.7 Public Involvement

Scoping was conducted to inform the public of the proposed land exchange, and a 45-day response period provided the opportunity to raise any issues associated with the proposal. The scoping notice was released on January 25, 2008, to approximately 1,077 people on the WMNF mailing list, landowners adjoining the subject parcels, and other potentially interested and/or affected individuals and groups. Concurrently, a legal notice, the Notice of Exchange Proposal, was published in the Newspaper of Record, *The New Hampshire Union Leader*, as well as the *Daily Courier*, and the *Valley News* once per week for four consecutive weeks. In addition, the proposal was published in the WMNF Schedule of Proposed Actions starting in January 2008 and posted at: <www.fs.fed.us/r9/forests/white_mountain/projects/projects>.

Forest Service and State of New Hampshire Department of Resources and Economic Development representatives have reviewed the Proposed Action with the Selectboards in the Towns of Piermont and Franconia. In response to an invitation from the Mittersill Chalet Owners Association, a presentation was made at the group's annual meeting on January 19, 2008. The proposal was also reviewed at a public hearing of the Cannon Mountain Advisory Commission on February 21, 2008 in Franconia. The proposed land exchange was reviewed and discussed with National Park Service and Forest Service staff associated with coordination of management and administration of the Appalachian National Scenic Trail (See Project Record).

Concurrently, the State Department of Resource and Economic Development, State Department of Fish and Game, Cannon Mountain Ski Area management staff, the NH Audubon Society, and WMNF representatives met to discuss the possibility of and details regarding a potential agreement for management of the suitable Bicknell's thrush habitat at Mittersill.

The Forest Archaeologist has discussed the Proposed Action and this analysis with the staff of the NH Division of Historical Resources (DHR) which is the NH State Historic Preservation Office (SHPO). A Cultural Resource Reconnaissance Report (CRRR) #08-43 was sent to their office for comment in accordance with legal requirements under The National Historic Preservation Act (NHPA) and its Regulations.

Consultation also occurred with the US Fish & Wildlife Service on potential effects on federally listed threatened and endangered plants and animals.

1.8 Issues

The Forest Service received and reviewed 56 letters, emails, and phone calls of comment in response to the scoping notice and public meetings. The Forest Supervisor assigned an interdisciplinary team (IDT) composed of resource and lands specialists to review the responses to scoping and to proceed with the environmental analysis.

For the purpose of the analysis, substantive comments were divided into two groups: significant issues and all other concerns.

Significant issues are cause-and-effect relationships that show potential conflict between this proposal and a consequence of the proposal where

1. the duration of the effect would take place over a long time;
2. the extent of the effect would cover a large geographic area; and/or
3. the intensity of the effect would be high.

All other concerns were identified as

1. outside the scope of decision to be made regarding the proposed action;
2. previously decided by law, regulation, Forest Plan, or other higher level decision;
3. concerns considered in the analysis and addressed by project design and/or mitigation measures;
4. unrelated to the decision to be made; or,
5. speculative and not supported by scientific or factual evidence.

The Council on Environmental Quality (CEQ) NEPA regulations require this delineation of issues 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)"

Appendix A of this document includes a summary of the public comments on the scoping document, along with the IDT's responses. The IDT addressed public concerns as displayed in the appendix. Using the parameters for significance, above, no significant issues, as defined, were identified, therefore no significant issues were brought forward in this analysis.

Chapter 2: Alternatives

2.1 Introduction

This chapter describes and compares each of the alternatives considered for the Mittersill – Sentinel Mountain Land Exchange. The Proposed Action Alternative and the No Action Alternative were each developed in detail; other alternatives were considered, but not developed in full detail for reasons described below. This section also presents the alternatives in comparative form, defining the differences between the two fully developed alternatives and providing a clear basis for decision by the Forest Supervisor.

2.2 Alternatives Studied in Detail

Alternative 1: Proposed Action

The Proposed Action reflects the state’s May, 2007 proposal; it achieves the Purpose and Need and meets the Goals and Objectives for the Project Area as described in the Forest Plan’s desired condition. The Proposed Action would:

1. Exchange approximately 100 acres of National Forest land at Mittersill for an equal value, or approximately 244 acres, at Sentinel;
2. Establish a Memorandum of Understanding (MOU) between the NH State Department of Resources and Economic Development, the NH State Fish and Game Department, the New Hampshire Audubon Society, and the USDA Forest Service, WMNF which will describe how interested parties would work together to protect suitable Bicknell thrush habitat subsequent to the exchange of land;
3. Amend the existing Memorandum of Agreement between the National Park Service and the US Forest Service to reflect the change in ownership of the 0.25 miles of Appalachian National Scenic Trail within Sentinel; and
4. Designate a portion of Sentinel as MA 8.3, Appalachian National Scenic Trail and the remainder as MA 2.1, General Forest Management, as described in the Forest Plan.

Table 1 shows the tract names for each parcel; also see Maps 1 and 2. The exchange would include all rights and interests currently held by the United States for the federal parcel as well as the agreements documented in the Memorandum of Understanding for management of suitable Bicknell’s thrush habitat (Appendix B). For the non-federal lands, the exchange would include all rights and interests now held by the State of New Hampshire.

Table 1. Federal and State lands proposed for exchange.

Federal Land		Non-Federal (State) Land	
Tract Number	Acres	Tract Number	Acres
TRACT 2a-1/569b-1/29d-1	100	TRACTS 2012, 2012A	244

Field examinations of both parcels, data analysis, discussion by resource specialists, and public input helped refine the Proposed Action. Most concerns were addressed through minor modifications of the Proposed Action and the development of project design features or mitigation measures that are intended to protect resources, specifically the Memorandum of Understanding to protect suitable Bicknell’s thrush habitat.

Alternative 2: No Action

Under the No Action Alternative, current management plans would continue to guide management of both the federal and state parcels. The federal lands would be managed in accordance with the Forest Plan (see Forest Plan Compliance, above) and the non-federal land would be managed in accordance with state guidelines.

This alternative does not meet the Purpose and Need for Action; it provides, however, a basis for analyzing the effects of the continued status of the Mittersill area and offers a benchmark against which to compare the effects of the management activities that would result from the implementation of other alternatives. This alternative also addresses the public responses to scoping which did not support implementation of the Proposed Action.

The No Action alternative would result, over time, in full re-vegetation of the Mittersill ski trails. There would be no change to the existing condition except for changes that would occur from natural events, including natural revegetation of the network of formerly-cleared areas throughout the parcel.

2.3 Alternatives Considered But Not Analyzed In Detail

The land exchange process inherently limits the range of reasonable alternatives. The specifics of a value-for-value land exchange proposal are determined through consideration of various potential parcels and parameters as specified by the respective parties to the exchange (the WMNF and the state). Ultimately, the Proposed Action is that specific combination of actions that both parties agree 1) meets the Purpose and Need and 2) merits detailed consideration and analysis.

Other alternatives were considered in the early stages of analysis but were eliminated from detailed consideration. The following section describes the alternatives that were eliminated from detailed analysis and the rationale for this determination.

Issue a Special Use Permit to the State for Operation of Mittersill Trails

A Special Use Authorization would allow a non-federal party, in this case, the State of New Hampshire, Department of Resources and Economic Development, to operate ski trails on National Forest System lands.

Throughout the National Forest System, developed snow-based recreation opportunities are provided under the authority of a Ski Area Special Use Permit (SUP). Nationwide, approximately 140 ski areas are located partially or wholly on NFS lands; they host highly developed recreation opportunities — via infrastructure, including lifts and facilities, owned by the SUP holder — and services, including grooming, snowmaking and patrolling, that are provided by the SUP holder. The authorization holder pays fees for the use of NFS lands, and at most ski areas these are calculated based on gross receipts and are adjusted based on the length of lifts on NFS lands as a portion of the lift system on the entire ski area. Generally, the fees collected meet or exceed the costs of monitoring and administration of these Special Use Permits.

Alternately, in the unusual situation where a portion of the ski area lies on NFS lands but no lifts operate on NFS lands, agency regulations specify that permit fees are calculated based on the appraised value of the portion of the ski area that lies on NFS lands and the area's gross receipts. This would be the expected scenario if a SUP was authorized for the State of New Hampshire to operate the trails on Mittersill. There is one comparative situation in the northeastern region of the United States, on the Green Mountain National Forest, where the SUP generates annual permit fees that do not meet the administrative expenses associated with monitoring, billing, master development plan and operating plan reviews, etc. associated with the permit.

When considering the appraised value of Mittersill, Cannon's revenues and the anticipated fees that would be collected for the relatively small portion of the expanded ski area, it is estimated that permit fees would not cover administrative costs. Essentially, based on existing regulations regarding the calculation of fees, a SUP issued to the state would result in a net revenue loss to the administering federal agency (Beth LeClair, Eastern Region Winter Sports Team Leader, email 06/11/2008). This alternative does not meet the purpose and need for action because it does not meet the project's need to provide "more cost-effective administration on NFS and state-owned lands".

In addition, it is recognized that DRED, the state agency responsible for managing the Cannon Mountain Ski Area, and the WMNF share common goals and objectives for the management of the Mittersill ski trails. Both agencies are charged with resource protection and public service; both agencies would manage these lands for similar standards and goals. Redundancy of agency management and administration are not in the public interest. Because a Special Use Permit issued to another agency similarly charged with resource protection and public service is redundant, this alternative

does not meet the project's need to "provide more efficient land ownership patterns and more cost-effective administration on NFS and state-owned lands."

For these reasons, this alternative was not developed or considered in further detail.

Modify the Mittersill Boundary to Exclude Three Acres Inventoried as Part of the Kinsman Roadless Area

As part of revising the Forest Plan in 2005, the Forest conducted an inventory of land that contained specific roadless characteristics. The Forest Plan inventory and evaluation considered the characteristics of each roadless area and whether or not it met criteria specified in the Forest Service Handbook for recommendation for designation as Wilderness (Appendix C, Forest Plan FEIS). Subsequently, the Forest made recommendations as to which IRA or which portions of each IRA should be designated by Congress as a Wilderness Area, and which should be managed for other goals and objectives.

The identification and subsequent evaluation of roadless areas was a process used to reach decisions during preparation of the Forest Plan; identification, inventory, and evaluation do not constitute a formal management area designation. Rather, the inventory and evaluation was a tool designed to assist planners in making recommendations for management. Subsequently, rationale and decisions about the roadless areas were documented in the Forest Plan, its supporting Environmental Impact Statement, and associated Record of Decision.

Ultimately, the WMNF recommended that Congress designate 34,500 acres as Wilderness in the Wild River valley and around the existing Sandwich Range Wilderness. Congress followed these recommendations closely, passing the New England Wilderness Act in December 2006 that created the 24,000-acre Wild River Wilderness and added 10,800 acres to the Sandwich Range Wilderness. These additions brought the total Wilderness acreage in the WMNF to 148,800 acres.

The Forest Plan assigned the remaining lands in the roadless area inventory, including the three acres included in this proposed exchange, to other management areas, based on a wide variety of factors with the goal of providing a balanced mix of uses across the Forest.

A three-acre parcel of land near the ridge between Cannon and Mittersill and included in the proposed exchange was part of the 11,158-acre Kinsman roadless area inventory and evaluation. The Forest Plan did not recommend this three-acre parcel for designation as Wilderness; rather the Plan designated it MA 9.2 — Ski Area Expansion (see above, Forest Plan Compliance). The Forest Plan established goals and desired future conditions for this MA that focus on alpine skiing opportunities — the same objectives the state has identified in the proposed exchange. The three acres, while precluded from vegetation removal by the Memorandum of Understand-

ing, are included in the proposed exchange. The exchange, including the three-acre portion of the inventoried roadless area, would indeed accomplish the same goals as those described for it in the Forest Plan.

As stated above, non-significant issues include those that are:

- 2) already decided by law, regulation, Forest Plan, or other higher level decision

Management direction for these acres was decided in the Forest Plan.

In addition, the Proposed Action includes the Memorandum of Understanding for the future maintenance of suitable Bicknell's thrush habitat, which includes the three acres discussed above; there will be no tree removal in the three acre parcel. Therefore, while ownership would change with implementation of the Proposed Action, there would be no perceptible change in the character, resources, or experiences associated with this small segment of the inventoried area.

There are no outstanding, unresolved issues regarding the inventoried roadless area in context of this Proposed Action.

For these reasons, this alternative was not developed or considered in further detail.

Implement the Exchange With Deed Restrictions on the Mittersill Parcel

Creating deed restrictions on the Mittersill parcels prior to the implementation of an exchange was considered as an alternative that might provide an option for maintaining Bicknell's thrush habitat on Mittersill. The Forest Service rarely adds deed restrictions to lands transferred out of federal ownership. A deed restriction would result in one or more of the following:

- The government would be solely responsible for monitoring, administration, and enforcement in perpetuity of non-federal lands;
- The value of the federally owned estate would be reduced during the appraisal by restricting highest and best use values; and/or,
- The Forest Service would assume the responsibility of another technically and physically capable land management agency.

The state, including both DRED and the Department of Fish and Game, NH Audubon, and the WMNF worked collaboratively to develop the MOU (see Appendix B). It was determined that the MOU, as reflected in the Proposed Action, provides more transparency, fosters partnerships and collaborative protection of the habitat, and complies with both state and federal requirements for land exchange.

It was determined that an alternative that included deed restrictions would not be in the public interest. For these reasons, this alternative was not developed or considered in further detail.

2.3 Comparison of Alternatives

This section provides a summary of the quantitative effects of implementing each alternative considered in detail. Information in Table 2 displays activities and discernible effects that can be distinguished quantitatively between alternatives.

Table 2. Comparison of Alternatives.

	Alternative 1 Proposed Action	Alternative 2 No Action
Acres transferred to federal ownership	244	0
Acres transferred to non-federal ownership	100	0
Acres of special status plant species' habitat transferred to state management (Mountain avens)	>1	0
Acres of special status wildlife species' habitat transferred to state management (Bicknell's thrush)	73	0
Net change in miles of WMNF property boundary to administer	2.15	0
Net change in number of WMNF boundary corners to administer	4	0
Acres of wetland transferred to state	0	0
Acres of wetland acquired by WMNF	14	0
Additional miles of AT administered by WMNF	0.25	0

Chapter 3: Affected Environment and Environmental Consequences

3.1 Introduction

This chapter describes and displays the effects of the proposed Mittersill – Sentinel Mountain Land Exchange on resources in the project area. The detail and scope of the analysis of effects is specific to the proposed exchange and to each resource; the analysis scope and intensity is determined by the land and resource features, the project proposal, new science, and the comments received during internal and public scoping.

This Environmental Assessment (EA) is a concise public document that serves to briefly provide sufficient information and analysis for determining whether to prepare an environmental impact statement (EIS) or a finding of no significant impact (FONSI) (40CFR 1508.9). To determine whether there may be significant impacts, NEPA requires consideration of predicted impacts in terms of both context and intensity (40 CFR 1508.27). “Context” simply means that the impacts must be considered in the appropriate setting or scale. For example, the impacts of the proposed land exchange are most appropriately evaluated in the context of the locale rather than the world as a whole. “Intensity” refers to the severity of impact and requires consideration of 10 factors. These 10 factors can be found in 40 CFR 1508.27 (and are incorporated by reference) and are addressed in this EA.

It is important to note that a land exchange results in a conveyance of federal land for non-federal land. **The act of conveyance has no environmental effect.** This environmental analysis describes the indirect effects of the exchange related to the proposed future use and management of the lands to be acquired and conveyed and the lands adjoining them.

This chapter is divided into resource sections; each addresses the parcels separately. For each parcel, the discussion includes:

- A description of the **Affected Environment**.
- Analysis of **Direct Effects on the Resource** (by alternative):
 - Direct Effects occur at the time and place of the action.
- Analysis of **Indirect Effects on the Resource** (by alternative):
 - Indirect Effects occur later in time or are farther removed in distance from the action but are still reasonably foreseeable.
- Analysis of **Cumulative Effects on the Resource** (by alternative):
 - Cumulative Effects result from the incremental impact of the action when added to other past, present and reasonably foreseeable actions, regardless of which government agency or individual undertakes such other actions.
 - The geographic area and the temporal scope for cumulative effects analyses are chosen for each resource based on what makes sense for the relevant elements of the resource; the geographic area and

temporal scope are the same for some resources and different for others. In all cases, the rationale for the area and the time period are noted in the respective resource sections in this chapter. Activities on non-federal lands are considered when appropriate.

The Final Environmental Impact Statement (FEIS) for the Forest Plan is the programmatic-level analysis for all resource discussions in this chapter and serves as the foundation for all project-level analysis. This proposed exchange is a typical management action on the WMNF, falling within the range of actions anticipated and included in the conclusions reached in the FEIS. This project-level analysis is tiered to the FEIS, and, where it is appropriate to do so, the FEIS is incorporated by reference with project information summarized here.

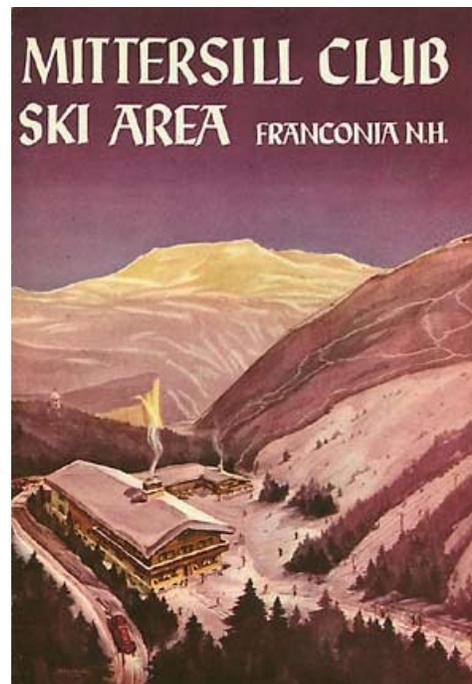
Effects Common to All Alternatives and All Resources:

Direct, Indirect, and Cumulative Effects

The only Direct Effect of either alternative is the status of ownership of the two parcels. Alternative 1, the Proposed Action, would transfer Mittersill from federal ownership to state ownership and Sentinel from state to federal ownership. Alternative 2 retains current ownership of each parcel.

Neither the Proposed Action nor the No Action would cause, imply, or authorize any ground disturbing activities. The Proposed Action is a purely administrative action with no other known direct effects.

Indirect and Cumulative effects are responsive to, and vary with, the two alternatives, and are described in the resource sections that follow.



Historical poster from the heyday of the Mittersill Ski Area.

3.2 Recreation

Mittersill

Affected Environment

This section will review four components of recreation on Mittersill:

Winter Use

Safety

Trail Maintenance

Non-Winter Use

Winter Use

As described above in the Proposal, Mittersill Ski Area once operated on NFS lands under authorization of a Special Use Permit. The Special Use Permit that had authorized operation of a ski lift and trails on NFS lands at Mittersill was terminated in 1989, however, some skiers have continued to ski on the remnant ski trails since Mittersill's closure. These skiers access the trails principally by riding the tram to Cannon's summit and traversing, on foot, the short ridgeline and uphill trail to the summit of Mittersill. Estimates of this informal use range from 100 to up to 500 skiers per day. Other skiing enthusiasts, access the "climb-to-ski" opportunity at Mittersill by "skinning" to the summit from Mittersill's base area. The skiers at Mittersill are seeking the regionally-unique opportunity to ski on rugged, un-groomed, natural snow in a "backcountry" setting.

There is no winter motorized use on Mittersill.

Safety

Although skiers access Mittersill via the Cannon tram, Mittersill trails are officially "out of bounds" of the Cannon's ski area boundary. Cannon's boundary is prominently posted at the point where the trail to Mittersill leaves state land. The boundary is also prominent on Cannon's trail map. Mittersill trails are not maintained for skiing by WMNF or Cannon personnel nor are Mittersill's trails under any separate authorization or agreement for maintenance. Trail hazards, including fallen trees, are not appropriately mitigated or removed and trails are not signed or patrolled.

Cannon Ski Patrol and rescue personnel are not authorized to perform search and rescue services at Mittersill. Without regular patrol as occurs on Cannon, injuries, lost skiers, accidents, etc. may go undetected for hours during critical and often life-threatening weather conditions.

On state-owned land at Cannon, injuries and accidents are reported to the Cannon ski patrol by Cannon employees and skiers. Ski patrol personnel are quickly dispatched to the site of the injury or lost skier. However, despite its close proximity to Cannon, Mittersill is "out of bounds"; the Cannon ski patrol is unauthorized to perform rescue services on Mittersill despite the ski patrol's training, equipment, communication capabilities and ready response status (Bill Roy, personal communication, May 22,

2007). Injuries and accidents on Mittersill are officially reported to the New Hampshire Fish and Game; Fish and Game search and rescue personnel must travel to Cannon Ski Area and access Mittersill via the Cannon Tram. The Regional Office of NH Fish and Game that provides rescue personnel to Mitteraill is approximately 50 minutes' drive from the base of Cannon, effectively delaying any rescue by a minimum of an hour. This may be a critical delay during harsh weather conditions, short daylight hours, and potentially serious and life-threatening injuries.

There are seven remnant lift towers, an off-loading ramp, return wheel building and lift operator building remaining on Mittersill.

Trail Maintenance

Since Mittersill's formal closure in 1989, the trails have been remained in essentially the same locations and relatively open conditions as were authorized under the Special Use Permit. Informal communication as well as blogs and webpages provide information regarding Mittersill slope conditions, access, etc.. Left to natural processes, the trails would have become increasingly overgrown since Mittersill's closure in 1989; skiing enthusiasts, however, have independently retained these trail openings. Aerial photos and views from Interstate 93 and surrounding trails and roadways reveal that the expected natural revegetation of the ski trails, officially abandoned more than 25 years ago, have been forestalled by efforts of skiers intent on maintaining the historic Mittersill trails.

Non-winter Use

There is no known non-winter recreation use of Mittersill, though there may be incidental hiking in the area. The parcel and its surrounding WMNF and state lands are closed to ATV and mountain bike use.

Indirect Effects

The Indirect Effects analysis area for recreation at Mittersill is the network of existing ski trails; these trails constitute approximately 20 acres of the 100 acre exchange parcel. The 20 acre trail network was selected as the analysis area for Indirect Effects because that is the area of the 1989 trail footprint as authorized in the FDC Special Use Permit and because it is the area that would be affected by implementation of this alternative. Indirect effects of the Proposed Action are limited spatially to the trail system because that is the only area potentially affected by the proposed exchange. No recreation use is known to occur nor anticipated to occur beyond the trail surfaces.

The temporal scale to analyze indirect effects on recreation at Mittersill is 20 years in the past because that is the time since Mittersill Ski Area terminated its operation; the Special Use Permit map establishes a known baseline trail system as it existed when the permit was terminated. The temporal scale to analyze indirect effects on recreation is five years into the future (1988-2013). This temporal scale into the future was selected because it is the planning horizon described in Cannon's Master Development Plan and provides the best available information regarding the foreseeable future under the Proposed Action.

Alternative 1

An indirect effect would be the state's establishment of managed skiing and snowboarding opportunities on the Mittersill ski trails while protecting Mittersill's important resource values.

Under the Proposed Action, trail surfaces would be maintained and skiers would ski on the existing trail system; no new trail construction would take place above 2,500; below 2,500 feet, the exchange area is nearly completely open so few if any additional trails would be constructed. There would be no indirect effect of the Proposed Action to the areas outside of the ski trail footprint because thick trees and brush prevent skiers or hikers from entering the area between the established trails.

Winter Use

The Forest Plan identifies the Goal of Recreation on the WMNF: "The White Mountain National Forest will provide a range of quality recreation activities and opportunities." (Forest Plan 1-10). The WMNF provides a wide range of recreation experiences including remote, Wilderness hiking and camping experiences, dispersed camping, developed camping and picnicking, driving for pleasure, snowmobile trails, groomed cross country ski trails and back country snowshoeing opportunities. The Forest Service does not operate ski lifts and trams, maintain alpine ski trails, nor provide lodge services, parking, shuttles, etc. These developed services associated with alpine ski areas are typically conducted by private or non-federal organizations with expertise in these highly-specialized businesses.

Site-specifically, the Forest Plan assigns goals to Mittersill through Management Area designations, MA 7.1 and 9.2 (see Forest Plan Compliance, Chapter 1, above). Mittersill is assigned to Management Areas that specifically recognize goals for alpine skiing opportunities and the expansion of alpine skiing opportunities.

The indirect effect of this exchange is that Cannon Mountain Ski Area would expand its boundary to incorporate the 20 acres of ski trails at Mittersill. The expansion would provide an opportunity for the public to access an additional 20 acres of a unique, backcountry skiing experience in association with the state's demonstrated ski area management expertise. The state's management expertise would include trail maintenance, signing, and patrol and rescue as well as supportive down-slope infrastructure and services.

The indirect effects of the Proposed Action would meet the goals of the Forest Plan and provide skiers additional opportunities for the "backcountry" ski experience they seek while the trails would be maintained to the industry standard for resource protection.

The preponderance of responses to scoping were from local residents, skiers and former skiers. These letters expressed support for the land exchange. Many of these commenters had skied at Mittersill as young children and adults and were drawn to the area for living and investment because of the winter recreation opportunities at Mittersill.

Many residents of the Mittersill and Franconia areas believe that the Proposed Action would have positive indirect and cumulative effects to the quality of life in the vicinity.

Safety

An indirect effect of the Proposed Action would allow Cannon safety personnel and equipment to patrol and service the 20 additional trail acres on Mittersill. The indirect effects would reduce on-mountain emergency response time from up to two hours from the time of communication with rescue personnel. The Proposed Action would indirectly allow more efficient and timely emergency response on Mittersill by utilizing Cannon's safety and rescue infrastructure including radio communication, safety equipment including evacuation sleds, and the first aid and emergency response skills of trained Cannon personnel. Cannon's mountain manager estimates that the Proposed Action would indirectly allow rescue personnel to "be on the scene of an incident or accident over at Mittersill within 10-15 minutes of being notified (from the summit at Cannon)." (John DeVivo, Mountain Manager, email, 04/28/2008)

Another indirect effect of the Proposed Action would allow Cannon Mountain personnel to include the Mittersill trails on the Cannon Ski Area map and provide on-site trail signs that indicate trail name and degree of skier challenge. Both mapping and signing would significantly and positively affect skier safety on Mittersill.

Trail Maintenance

An indirect effect of the Proposed Action would allow Cannon maintenance personnel to conduct ski trail maintenance to industry standards. This would include maintenance of trail openings through trimming and mowing of vegetation, removal of trail-side hazardous and fallen trees from trail surfaces, management of surface water through proper drainage structures including water bars, and removal of non-native invasive species (plants) if they were to occur.

Non-winter Use

An indirect effect of the Proposed Action is that Cannon would likely continue its prohibition of recreational ATV use within the expanded ski area during the non-winter season. Cannon would allow administrative use of ATVs for required trail maintenance.

Summary of Recreation Effects

The indirect effects of the Proposed Action would result in expanded opportunities for a technically and financially capable agency to offer approximately 20 acres of well-regulated and managed backcountry snow sports experiences, increased safety conditions on the trails, hazard reduction and signing, as well as trail management to industry standards for safety, rescue and resource protection.

Alternative 2

Winter Use

The indirect effect of this alternative would preclude expansion of Cannon Mountain Ski Area onto Mittersill. This alternative would not provide for the re-establishment of alpine skiing and snowboarding at Mittersill. Climb-to-ski opportunities from the base of Mittersill would continue as far as the Cannon's lower boundary with NFS lands. Increased enforcement efforts would curtail unauthorized vegetation cutting; as vegetation continues to obliterate the trail openings on NFS lands, however, the trails would become increasingly impassable to skiers over the next 10 to 15 years. Ultimately, the indirect effect of the No Action alternative would be to preclude this recreation opportunity on Mittersill for downhill skiers, snowboarders and climb-to-ski enthusiasts over the next 10 to 15 years.

The Forest Plan identifies goals that allow consideration of re-establishment and expansion of skiing on Mittersill (see Forest Plan references, above). The No Action alternative would preclude the expansion of the Cannon Mountain Ski Area onto the trails at Mittersill as proposed by the state at this time.

Safety and Trail Maintenance

An indirect effect of the exchange would be the safety concerns related to trail maintenance and revegetation of ski trails at Mittersill; safety concerns related to skiing would be high because increased patrols would preclude unauthorized maintenance and vegetation would become increasingly established on the trails. Safety concerns would be eventually eliminated as vegetation would ultimately obliterate the trails as available ski terrain.

Within the next 5 years, it is likely that out-of-bounds skiers from the summit of Cannon and the base of Mittersill would continue to attempt to access Mittersill's slopes. Lost or injured skiers might remain undetected for long periods and Cannon rescue personnel would not be authorized or dispatched to Mittersill trails. In addition, the known and newly occurring safety hazards on Mittersill (dead and falling trees in and adjacent to the trails) would remain on site until the trails were completely obliterated by vegetation and rendered impassable to skiers and snowboarders.

Non-Winter Use

Because there is no known non-winter use, there is no indirect effect of the No Action alternative on Non-Winter Use.

Cumulative Effects

The cumulative effects analysis area for recreation is spatially defined by the 100 acre parcel proposed for exchange and the existing Cannon Mountain Ski Area. This scale was selected because all of the effects of the proposed exchange would occur in the immediate area used by skiers and snowboarders on Mittersill and the adjacent Ski Area; this cumulative effects area includes ski trails, lifts, and lodge facilities. There would be no cumulative effects to NFS lands south and west of Mittersill as there would be no change to the use or occupancy of those lands and no implications to their

future management. The temporal scale for the analysis of effects on recreation is 5 years because this is the temporal scale of the state's approved Cannon Mountain Ski Area Master Development Plan (MDP), as amended on April 4, 2008. The MDP best describes the state's potential future development at Cannon, though the MDP projects are not yet funded; implementation may or may not be funded and implementation, as outlined in the MDP, in the foreseeable future may or may not occur.

Alternative 1

The Proposed Action would result in state ownership and management of Mittersill. The foreseeable future of this alternative is reflected in the state-issued Cannon Master Development Plan (MDP). Though none of the projects described for Mittersill are funded to date, the MDP specifies the state's intent to retain the "backcountry" nature of Mittersill as it currently exists.

The Mittersill Area will be incorporated into the day to day management and operations of the Cannon Mountain Ski Area. The area will be of lesser development than the Tramway and Peabody Areas with limited skier services offered. Trail and skiing conditions will be managed and promoted as intermediate to advanced terrain with a backcountry feel. No new lift, trail, glade development or expansion of terrain will occur above the 2,500 elevation beyond the 1989 developed footprint. Existing trail and lift alignments and their width will be considered the maximum allowed (above 2,500, clarification added). (Cannon Master Development Plan, as amended, April 4, 2008.)

The cumulative effects of the Proposed Action could include projects that are identified in Cannon's MDP through 2014. These plans include:

- redevelopment of existing parking lots at the base of Mittersill (on current state-owned lands),
- re-establishment of a double chair lift on the location of the abandoned chairlift (partially on state-owned lands and partially on lands proposed for exchange to the state),
- possible construction of a visitor facility at the base of Mittersill (on current state-owned lands) that could provide shuttle transportation to the main Cannon lodges, ticket sales center, first aid area, brown bag lunch and vending machine area, and
- snowmaking system construction (partially on state-owned lands and partially on lands proposed for exchange to the state).

It should be noted that the MDP merely lists these potential projects. There are no specific design or development plans in support of these projects. These projects are to be considered in detail in the future; identifying a potential project in the MDP does not infer state funding or subsequent approval for implementation:

It is recognized that the schedule of work and cost estimates are best estimates and further planning and evaluation will take place as operating and capital budgets are developed in upcoming bien-

nium's [sic]. The Commissioner of the Department of Resources and Economic Development will consult as needed with the Cannon Mountain Advisory Commission prior to submission of recommended projects to the capital budget overview committee. (RSA 12-A:29-b,V). (Cannon Master Development Plan, as amended, April 4, 2008.)

According to language in the 1998 MDP "Actual project implementation scheduling may be adjusted throughout the life of this MDP to meet guest desires and physical, environmental, technological and financial considerations (MDP, page V-2)." While the MDP indicates the general direction and intent of the state's management plans for Mittersill, the specifics of projects are yet to be determined and are more than five years beyond the implementation of this exchange; these projects, as may be considered in detail in the future, are beyond the scope of this cumulative effects analysis.

The MOU (see Appendix B), however, specifically describes the parameters of future management and development above 2,500 feet. In this area, trail clearing is limited to that authorized by the 1989 Special Use Permit and lift replacement or additional lift construction is constrained by the 1989 clearing footprint. The MOU also describes restrictions on ground disturbance, group events, etc. Because of the agreements documented in the MOU, there are no cumulative effects of the Proposed Action above 2,500 feet.

Within the spatial and temporal scales of this analysis, no adverse cumulative effects are anticipated as a result of implementation of the Proposed Action.

Alternative 2

The No Action alternative would retain Mittersill in federal ownership and Cannon would not operate a lift or maintain ski trails on Mittersill. Mittersill's MA designations would remain unchanged; the area would be available for consideration of subsequent management proposals for a Ski Area and/or for Ski Area Expansion. A proposal that may implement ski activities in these MA's, if proposed, would be considered under a separate and subsequent environmental analysis.

Within the spatial and temporal scales of this analysis, there are no known cumulative effects of the No Action alternative.

Sentinel

Affected Environment

Appalachian National Scenic Trail (AT)

The prominent recreation feature within Sentinel is the 0.25 mile section of the AT which traverses the southeast corner of the State Forest across land within the Town of Piermont and bounded by the town lines of Warren to the east and Wentworth to the south. The Sentinel section of the AT is a portion of the overall trail that traverses the State of New Hampshire and, ultimately, stretches over 2,170 miles from Maine to Georgia.

The AT crosses New Hampshire in a generally east-west direction between Maine and Vermont. Along its traverse of New Hampshire, the AT lies nearly entirely on lands owned by the US and administered by the White Mountain National Forest. The AT corridor lands that are administered by the WMNF and lie outside of designated Wilderness are designated in the Forest Plan as MA 8.3. As described in the Forest Plan,

The Appalachian National Scenic Trail is administered by the Secretary of Interior in consultation with the Secretary of Agriculture, and managed as a partnership between the National Park Service AT Park Office, USDA Forest Service, local Appalachian Trail Clubs, and the Appalachian Trail Conservancy (ATC, formerly named the Appalachian Trail Conference). (Forest Plan, p. 3-45)

There are several short sections of the AT in New Hampshire which are in non-federal ownership. One of the largest of these non-federal sections is the 0.25 miles of AT currently within the Sentinel. These “gaps” in federal ownership pose periodic challenges for consistent implementation of the AT managing principles, as specified above.

The state entered into a Memorandum of Understanding (MOU) for management of the 0.25 miles of AT within Sentinel (February 26, 1986). This MOU between the Appalachian Trail Conference, the Appalachian Mountain Club, the Dartmouth Outing Club, the State Department of Resources and Economic Development and the National Park Service was executed in 1989 and expired in 1995. The MOU has not been renewed, but management agreements documented in the MOU are, de facto, in effect. The Forest Service manages the adjacent segments of the AT under a separate, though similar, Memorandum of Agreement with the National Park Service that was executed on January 26, 1993.

The Sentinel section of the AT is characterized by stands of northern hardwoods and of white pine (see Vegetation section). The trail crosses and follows several stone walls. To the north after leaving Sentinel, the AT accesses lands administered by the WMNF and leads past the Ore Hill Shelter, a three-sided log structure typical of the region. To the south, after leaving Sentinel the trail traverses other lands administered by the WMNF and continues to the AT’s junction with Cape Moonshine Road (see Map 2). While there are no outstandingly remarkable features in this section of the trail, use of the trail in this area by long-distance and local hikers is moderate.

Other Recreation

Sentinel likely hosts dispersed recreation use that might include hunting, birdwatching, cross country travel, etc. No developed campgrounds, trails, snowmobile routes, etc. are found within or immediately adjacent to Sentinel.

Indirect Effects

The spatial scale for the analysis of indirect effects is the entire Sentinel Mountain State Forest. This is identified as the spatial scale because while recreation use in Sentinel is primarily focused on the AT, there may be some

dispersed recreation use in Sentinel. The temporal scale is the next 5 years (2008-2013) because, although not formally renewed, that is the increment of the term of the Memorandum of Understanding by which the state has been managing and administering the AT corridor within Sentinel.

Alternative 1

Appalachian National Scenic Trail (AT)

The intent and guidelines under which the state and the Forest administer their respective segments of the AT are essentially similar. Within the area adjacent to the trail tread, natural process and character will dominate the landscape. Beyond 500 feet from the trail tread, other activities, including timber management, are currently permitted by the state and would continue to be permitted on federal land if the exchange is implemented.

Implementation of the Proposed Action would not result in significant change in the appearance of the landscape, the maintenance level of the trail, or the available recreation experience. Trail users and visitors would not discern a specific on-the-ground direct or indirect effect as a result of implementation of the Proposed Action.

The indirect effect of implementation of the Proposed Action on recreation is

- the improved efficiency of trail administration and management and
- a non-significant addendum to the WMNF Forest Plan to designate management areas for Sentinel and the included AT corridor (See Proposed Management Areas, Map 3).

Statewide, the WMNF manages 136 miles of the AT. The state manages 5.8 miles, including the Sentinel section, in six segments scattered throughout the state. Trail maintenance, inspection, compliance, patrol and administration of the AT is currently executed by two different agencies with essentially similar missions; the state manages the Sentinel segment of the AT and the WMNF administers the adjoining segments of the AT to the east and to the west of Sentinel. The Proposed Action would allow efficiencies of management by consolidating ownership of the AT in the vicinity of Sentinel. An indirect effect of the consolidated ownership would be an increase in efficiency of administrative travel time, boundary maintenance and signing, as well as more efficient and consistent coordination with the other AT management partners for this section of the trail.

The Appalachian Trail Conservancy (ATC) is the volunteer-based non-profit group dedicated to the conservation of the AT and its associated lands, in partnership with local AT Clubs, land-managing agencies, and the National Park Service. Within New Hampshire, ATC works with the WMNF, the Dartmouth Outing Club, the Appalachian Mountain Club, and DRED, the State Trails Bureau, and others. The ATC is an important partner state-wide in the management and protection of the values for which the AT was designated as a National Scenic Trail. The ATC acknowledges the increased efficiency of consolidated ownership as an indirect effect of the Proposed Action:

By all appearances, the acquisition of all or a portion of this (Sentinel) tract by the USFS will result in equal or greater protection of the A.T.... Further, ATC believes that the transfer of this parcel to the WMNF could benefit the overall management efficiency of the A.T. in New Hampshire by streamlining management guidelines. (ATC response to scoping, March 1, 2008)

An indirect effect of the Proposed Action would be the designation of a portion of Sentinel as Management Area (MA) 8.3, Appalachian National Scenic Trail, in concert with the contiguous federal lands' designation as MA 8.3 lands. The definition of the extent of MA 8.3 for this parcel is 500 feet on either side of the trail tread. This MA designation would provide guidance to manage this section of the AT according to the Standards and Guidelines in the Forest Plan for MA 8.3 that include:

S-1 Management of the AT must follow the National Trails System Act, as amended (P.L. 90-543). This Act is implemented according to:

- a) The Comprehensive Plan for the Protection, Management, Development, and Use of the Appalachian National Scenic Trail.
- b) Various Memoranda of Agreement, Memoranda of Understanding, and policy statements between the USDA Forest Service, the National Park Service, and the Appalachian Trail Conference (now Appalachian Trail Conservancy).
- c) Forest Service Direction (FSM, FSH, and supplements). (Forest Plan, p. 3-47)

Guideline G-2 for MA 8.3 specifies:

Management is guided by the following documents. When these documents are amended, they will provide updated guidance and as such will not require Forest Plan amendments.

- Appalachian Trail Conference. Appalachian Trail Design, Construction, and Maintenance (ATC Stewardship Manual, second edition, 2000).
- Appalachian Trail Conference. Overnight-Use Management Principles.
- Appalachian Trail Conference. Local Management Planning Guide.
- Appalachian Trail Conference. Checklist for the Location, Construction and Maintenance of Campsites and Shelters on the Appalachian Trail.
- Local Management Plans for the Appalachian Trail.

An indirect effect of the Proposed Action would be designation of MAs within Sentinel. The Proposed Action would result in management of the Sentinel section of the AT consistently with its contiguous federal lands and AT corridor to the northeast and southwest. The Proposed Action would designate areas within 500 feet of the trail tread as MA 8.3. Areas beyond 500 feet from the AT would be designated as MA 2.1, General

Forest Management. The decision maker, referring to this interdisciplinary environmental analysis would document his decision and rationale for MA designations in this project's Decision Notice. This process for consideration and designation of Management Areas for newly acquired lands complies with the Forest Plan (Forest Plan p. 2-8).

Other Recreation

There would be no indirect effects of implementation of the Proposed Action on informal and dispersed recreation opportunities at Sentinel, including hunting, outside of the AT corridor. Designation as MA 2.1 would have no indirect effect on the existing pattern of informal recreation occurring beyond 500' from the AT. The state currently allows these dispersed recreation opportunities in the portions of land beyond the AT corridor; these opportunities would remain virtually unchanged under the Proposed Action.

Alternative 2

Appalachian National Scenic Trail (AT) and Other Recreation

The indirect effect of the No Action alternative would be the lost opportunity to increase administrative efficiency of the Sentinel section of the AT.

Cumulative Effects

The spatial scale for the analysis of cumulative effects is the segment of the AT from Cape Moonshine Road to the Ore Hill Shelter. This is identified as the spatial scale because these two landmarks are typical focus points of hikers using this section of the trail; this area would include any cumulative effects to recreation. Cape Moonshine Road could be used as a starting point for AT use and the Ore Hill Shelter is a common destination for overnight use. The temporal scale is the last 5 years and the next 5 years (2003-2013) because that is the term of the Memorandum of Understanding under which the state currently administers the Sentinel portion of the AT.

Alternative 1

Appalachian National Scenic Trail (AT) and Other Recreation

The only cumulative effect of the Proposed Action would be the positive long-term management efficiencies of consolidated ownership and management of the AT corridor. There are no additional cumulative effects to the recreation experience associated with the implementation of the Proposed Action.

Alternative 2

Appalachian National Scenic Trail (AT) and Other Recreation

Within the spatial and temporal scales of this analysis, there would be no known cumulative effects anticipated as a result of implementation of the Proposed Action.

3.3 Efficient Land Management and Administration

Mittersill

Affected Environment

Mittersill currently hosts skiers and snowboarders who either hike up or ride the Cannon lifts to Mittersill's summit, proceed to a point along the Taft Trail, leave state land and ski the Mittersill trails. While this skiing is considered "out of bounds" with regard to Cannon, there has been limited success in deterring winter sports enthusiasts from conducting unauthorized trail maintenance, including vegetation cutting, along these trails in both summer and winter. Forest Service patrol access to Mittersill is via Cannon's tram, then, seasonally, either hiking or skiing to the remote network of ski trails; Forest Service patrol of these trails to enforce restrictions on unauthorized activities is difficult, time consuming, expensive and, because of the highly dispersed nature of the activity, of somewhat limited effectiveness.

Boundary lines between state and federal-lands are well marked and maintained. Mittersill's boundaries generally consist of long, straight segments with minimal corners or irregular lines. Corners and lines are well marked.

The spatial and temporal scales for the evaluation of indirect and cumulative effects related to Efficient Land Management and Administration are the same as those described for the Recreation portion of this document, above.

Indirect Effects

Alternative 1

An indirect effect of the change in ownership would be the consolidation of recreation lands under the management and administration of one capable, resource management agency and landowner, the state. This consolidation directly addresses the Need for this land exchange to "provide more efficient land ownership patterns and more cost-effective administration on NFS and state-owned lands" (See Chapter 1). The Proposed Action is in compliance with the Forest Service direction which addresses land exchanges in support of efficient land management. "These exchanges adjust ownership patterns to support direction in forest land and resource management plans and to create efficient and effective ownership patterns (Forest Service Manual 5403.1)." FSH 5409.13_31.11 In addition, a direct effect of this exchange is the consolidation and efficient land management as directed in the Forest Plan (Forest Plan, p. 1-6) and as referenced in the section "Compliance with the Forest Plan", above.

The Town of Franconia currently receives payments in lieu of taxes for the federal lands within its boundaries. An indirect effect of the Proposed Action would be the implementation of payments to Franconia authorized by state TITLE XIX, Chapter 216-A, EXPANSION OF STATE PARK SYSTEM, Sec-

tion 216-A:3-a Payments by State. This describes a 100% payment in lieu of taxes for the first year following state acquisition, and a declining payment over the subsequent four years. Payments to the Town from the state for Mittersill would terminate 5 years following state acquisition.

An indirect effect of this alternative is the management of the network of ski trails within Mittersill to provide a managed downhill ski recreation opportunity to the public. The state proposes to expand Cannon's boundary to incorporate the trails at Mittersill. The state manages its lands for resource protection goals similar to those of the WMNF and is well equipped and trained to manage these lands for the protection of natural resources and for the development of recreation opportunities. Its interest in expansion of Cannon as well as its expertise in ski area management, its infrastructure at the adjacent ski area, and employee training and capabilities position the state well to efficiently manage Mittersill. The state has a demonstrated history of sound and efficient management of Cannon Mountain Ski Area and is expected to provide the same professional land management standards at Mittersill. Transfer of this parcel to the state indirectly provides for efficient and capable management of Mittersill and eliminates any redundant administrative oversight that the WMNF might provide under an alternative management scenario, including authorization of a Special Use Permit (see Alternatives Considered but Not Analyzed in Detail, above).

The Proposed Action would result in the relocation of the WMNF boundary at Mittersill, however the net change to the boundary management costs will be largely unaffected by the proposed exchange. The WMNF boundary at Mittersill has an efficient configuration with limited boundary corners or irregular boundaries. The boundaries are well maintained and documented. The new boundary line would be similarly configured and marked; long term maintenance of the new boundary will not result in a substantive change to boundary administration costs.

Alternative 2

An indirect effect of the Proposed Action is the WMNF's increased staffing needs for patrol efforts directed toward eliminating unauthorized cutting of vegetation on Mittersill. Effective patrol of the area will be increasingly important, though costly. The long history of skiing and snowboarding has established Mittersill as a regionally recognized backcountry skiing opportunity for which users have long performed unauthorized maintenance. Patrol of Mittersill and public education efforts aimed at eliminating unauthorized cutting will be time consuming and require vigilance until the Mittersill trails are fully revegetated, a period expected to exceed 10 years.

Under the No Action alternative, there would be no change to current payments to the Town of Piermont because no change in ownership would occur.

Cummulative Effects

Alternative 1

There are no additional long-term cumulative effects of this alternative.

Alternative 2

There are no additional long-term cumulative effects of this alternative.

Sentinel

Affected Environment

Land exchanges are mutually agreed-upon land adjustments that serve the purposes and needs of both parties. With regard to federal lands, the Forest Service Handbook provides direction that includes: “These exchanges adjust ownership patterns to support direction in forest land and resource management plans and to create efficient and effective ownership patterns (Forest Service Manual 5403.1).” FSH 5409.13_31.11 As stated in the Recreation section, above, consolidation of ownership of the AT will help assure consistent, cost effective ownership.

Lands held by state or federal entities often provide one or more of several structured payment method to NH towns. These state or federal funds are provided to towns in lieu of land taxes that would have been paid to the town by private landowners. In the case of Sentinel, on average, state payments in lieu of taxes contribute approximately \$300. per year to the Town of Piermont (Linda Kennedy, State of NH Department of Revenue, June 9, 2008 email correspondence).

The spatial and temporal scales for the evaluation of indirect and cumulative effects related to Efficient Land Management and Administration are the same as those described for the Recreation portion of this document, above.

Indirect Effects

Alternative 1

The Proposed Action would indirectly result in minimizing boundaries between landowners, and streamlining both administrative and maintenance processes.

An indirect effect of the Proposed Action would be the re-calculation of the funds paid by the state to the Town of Piermont for payment in lieu of taxes (PILT). “Payments in Lieu of Taxes”, or PILT, are federal payments to local governments that help offset decreases in property taxes as a result of the presence of non-taxable federal lands within Town boundaries. However, as is applicable here, a local government may not receive payment for land owned or administered by a state or local government that was exempt from real estate taxes when the land was conveyed to the United States. Under the Proposed Action, the state’s payment in lieu of taxes would terminate. The Town of Piermont would become eligible instead for federal funding through an alternate federal program known as the 25% Payment Act. The 25% Fund Act, also known as the Act of May 23, 1908, was enacted to provide states 25% of all revenue received from any National Forest during any fiscal year. These revenues are collected from timber sales, mineral sales, grazing fees, and other revenue sources. Funds are used for the benefit of public schools, public roads of the county or counties in which

such National Forest is located. Extrapolating payments from recent years' calculations and based on other assumptions of acres under federal ownership state-wide, the estimated payments from the 25% Payment Act to the Town of Piermont would result in a net annual decrease in revenue to the Town of approximately \$100 - 150.

Conversely, Mittersill, currently in federal ownership, would become state land. The state would provide payments in lieu of taxes to the Town of Franconia, in a five-year declining schedule, terminating five years after the transfer of ownership. The net effect would be, after five years, the termination of payments previously made by the federal, and subsequently, state agencies.

An additional indirect effect of implementing the Proposed Action would be the updating of the Memorandum of Agreement between the National Park Service and the Forest Service which would be modified to include the Sentinel segment of the AT. There would be no other indirect effects of the Proposed Action.

Alternative 2

There would be no indirect effects of implementation of the No Action alternative. The efficiencies of consolidated ownership would not be realized; Sentinel would remain in state ownership and its isolated segment of the AT would continue to be administered by the state.

Cumulative Effects

Alternative 1-2

There would be no known cumulative effects of implementation of the No Action alternative.

3.4 Wildlife

Mittersill

Affected Environment

Wildlife habitats found at Mittersill are dominated by the following types:

1. montane red spruce and balsam fir, found in pole-timber size throughout much of the upper elevations of the Mittersill tract and becoming stunted towards the Mittersill summit;
2. mixed hardwood/softwood forest below the spruce-fir zone, which becomes more hardwood-dominant towards the Mittersill base; and
3. open ski trails dominated by grasses/sedges and other herbaceous plants, as well as open rock ledge. There is little transition between open and forested conditions.

Rare species are addressed below under Threatened, Endangered, and Sensitive Species. Species-habitat relationships are well documented for a number of vertebrate wildlife species (e.g., DeGraaf and Yamasaki 2001). In the 2005 revision of the WMNF Land and Resource Management Plan, a number of Management Indicator Species and Ecological Indicators were used to evaluate effects of various planning alternatives (USDA Forest Service 2005a, pp. 3-166 to 3-195). This analysis will cover the three primary habitat types found in the project area:

Montane red spruce and balsam fir habitat

This habitat occupies the majority of the Mittersill parcel being proposed for exchange. In the WMNF Forest Plan FEIS, a series of 5 ecological indicators were chosen to display effects in this habitat, primarily from recreational use (FEIS, pp 3-187 to 3-188). These 5 species are: Bicknell's thrush, blackpoll warbler, yellow-bellied flycatcher, boreal chickadee, and spruce grouse. All five of these species are found in the high elevation spruce-fir zone of the White Mountains, although only Bicknell's thrush is found exclusively at the higher elevations. Spruce grouse and boreal chickadee are considered resident; the others migrate to Mexico and Central America, South America, or the Caribbean.

All five species have been found during high elevation bird surveys completed on the Forest. Spruce grouse is the most uncommon, although the survey technique used is not the most appropriate for recording this species. A cursory look at the high elevation bird data shows stable trends for blackpoll warbler and boreal chickadee during the 1990s, but declining trends for Bicknell's thrush and yellow-bellied flycatcher. King et al (2007) took a closer look at the same data and verified these trends. The Bicknell's thrush result is consistent with Rimmer et al. (2001) and Lambert et al (2008), who specifically evaluated data for Bicknell's thrush on the White Mountain National Forest. Blackpoll warbler, yellow-bellied flycatcher, and Bicknell's thrush were all identified during a 2008 field visit (unpublished field notes, Project Record).

It is important to note that concurrent with the development and analysis of the Proposed Action, the state developed and signed a Memorandum of Understanding (MOU; See Appendix B, U.S. Forest Service et al. 2008) between the WMNF, New Hampshire Department of Economic Development New Hampshire Fish and Game Department, and Audubon Society of New Hampshire. This MOU describes a long-term commitment between the parties for continued conservation of Bicknell's thrush and its habitat (above 2,500 feet) within the proposed Mittersill exchange area. The MOU was developed as part of the Proposed Action for the Mittersill-Sentinel Mountain Land Exchange to mitigate potential effects and document desired long-term collaboration efforts between the parties. Terms of the agreement include such items as:

- Protocol for biennial habitat and bird monitoring (MOU Attachment A),
- Provisions ensuring that trail maintenance or other clearing of vegetation above 2,500 feet in elevation is restricted to the trail footprint of the previously-authorized trails,
- specifications that maintenance, ground or vegetative disturbance occurs before May 15 or after August 1 to avoid disrupting breeding and nesting activities, and
- prohibition on mountain biking and large group events between May 15 and August 1.

Mixed hardwood/softwood habitat

Mixedwoods occupy the bulk of the remaining land at the lower elevations of Mittersill. For the purpose of this analysis, since softwoods are already addressed by the montane spruce-fir indicators listed above, this habitat analysis will focus on species that prefer mature hardwood types. Scarlet tanager (*Piranga olivacea*) is the Management Indicator Species used to represent mature hardwoods (USDA Forest Service 2005a, p.3-167 to 3-168). Examples of other species that may also use mature mixedwoods include hermit thrush (*Catarus guttatus*), black-throated green warbler (*Dendroica virens*), and fisher (*Martes pennanti*). All of these species are considered fairly common with stable populations on the WMNF (unpublished WMNF bird survey data, unpublished WMNF winter track data). Both birds were identified in the project area (unpublished field notes).

In addition, there is a small amount of early successional mixedwood habitat. This is habitat that is typical following a regeneration harvest or other disturbance event. At Mittersill, this habitat is found in limited amounts along trail edges and in clumps within existing, informal ski trails that have not been maintained for a number of years. The Mittersill habitat may not currently occur in large enough patches to support species that use early successional habitats exclusively, but can provide suitable conditions for those species that are more general in their habitat utilization.

Open habitat

Open habitats are mostly artificial, in this case, created by ski trail clearing. Trails have fairly abrupt edges, although there is generally some transition to adjacent habitats. No indicator species were selected during Forest Plan revision to represent this habitat, but some species that may utilize it include a variety of butterflies and other insects that can serve as prey for other species. A variety of other species such as black bear, white-tailed deer, moose, and various raptors will use these trails as foraging areas or travel corridors.

Key Elements for Wildlife

In a land exchange, the most obvious consideration for wildlife is the loss or gain of habitat at each parcel. However, in this case, the MOU included in the Proposed Action for Mittersill effectively conserves the majority of the parcel. Instead, the two factors used to determine indirect and/or cumulative effects on wildlife are 1) the amount of habitat available for each habitat group; and 2) the amount of disturbance caused by anticipated uses such as skiing, hiking, and large group events. Disturbance from human activities can cause individuals to temporarily relocate to another area or can lead to more serious effects such as nest abandonment. Additional disturbance may be caused by construction or other operations at Mittersill such as trail maintenance.

Indirect Effects

The analysis area for indirect effects on wildlife species includes the approximately 100 acres at Mittersill land that are proposed for exchange. The temporal scope for indirect effects on wildlife is the period immediately after the lands are exchanged. The Proposed Action does not propose any on-the-ground action, the exchange constitutes only an administrative change in ownership from federal to state ownership. For the sake of analysis, connected actions that are included with the proposed action are activities such as continued winter skiing and incidental summer hiking, which take place at low levels every year. Although not specifically monitored, these activities likely do not take place outside of the existing trail system and human disturbance in forested areas is minimal due to the area's dense vegetation and steep slopes. It is assumed, based on anecdotal information, that skier use has been continuous on the Taft Trail since the 1930's. Because the actions as a result of this project would be continuous (occurring year after year), the timeframe for indirect effects analysis will include the next 5 years, which is coincident with the Cannon Mountain 5-year Master Development Plan. This allows for a reasonable analysis of use and resultant effects without speculating on unknown future effects.

Major projects such as lift reconstruction may occur sometime in the future as outlined in the Cannon Mountain Master Development Plan (See Cumulative Effects section of Recreation, above) and the MOU for the maintenance of Bicknell's habitat. These potential projects are addressed under cumulative effects.

Alternative 1

Montane spruce-fir habitat

There would be no change in habitat availability for any species. Indirectly, there may be some additional skiers that ski from the Cannon Mountain tramway terminus over to the Mittersill summit and then down to the base. However, these activities would occur in the winter, when all migratory species would be gone, so there would be no effect on these species.

Effects are also unlikely for resident species, since activity would occur almost exclusively in the open ski trails, not in the spruce-fir forest.

In the summer, there may be some minor trail maintenance on the ski trails, but because of the MOU that restricts trail widening above 2,500 feet, no effect from vegetation changes would be evident. Maintenance occurring in open habitats would cause some disturbance to species occupying the spruce-fir habitats, but this effect would be limited to occasional mowing or brushing in the trail corridors. Little maintenance has occurred at Mittersill since operations closed 20 years ago and trails are still quite open, so expected maintenance levels would be low. Disturbance from hikers would be very minor, as this limited activity is expected to occur primarily on the ski trails. Hiking would generally be a much quieter activity than maintenance and would be expected to cause minimal disturbance.

Mixedwood habitat

Unlike many of the mixedwood habitats on the WMNF the habitat within Mittersill is fragmented by ski trails and lift corridors. This fragmented habitat provides marginally suitable conditions for a number of species that have been identified here. Similar to the montane spruce-fir habitat, there would be no direct effects and limited indirect effects to this habitat. Pockets of mature stands would remain even if trails were re-established or even expanded (below 2,500 feet). The parcel is so fragmented now that additional cutting would not have a substantial effect on wildlife species that use these mature habitats. It is likely that mature forest wildlife species (especially those with larger home range movements such as fisher) would rely more heavily for breeding on the more intact forest to the west of Mittersill, but may venture into the regenerating trails to take advantage of foraging or travel opportunities.

Some of the trails towards the lower (northern) end of the parcel have begun regenerating and may be cut back to create more suitable skiing conditions on existing trails. This would eliminate suitable habitat conditions for species that prefer shrubby conditions, displacing them outside the project area.

Open habitat

As with the other two habitat types, no direct effect to open habitats would occur as a result of the Proposed Action. Indirectly, this habitat would be maintained through ski trail maintenance. Winter use of this habitat is probably limited to voles and other species that travel under the snow, whose numbers and use would not be expected to change in the near future. In

the spring and summer, these habitats would continue to see foraging use by black bear, moose, deer, woodland bats, and other wildlife species. Use levels by these species would be the same as current conditions, since habitat availability would be similar.

Disturbance effects in this habitat would be similar to current conditions. This habitat receives the most human disturbance in the project area, from skiing in the winter to incidental hiking in the summer. Both activities probably cause some temporary displacement of individuals into the adjacent habitats (e.g., bear or deer) or further away within the same habitat in the case of species such as butterflies. In the short-term, human use is expected to remain low, similar to current conditions, since no additional infrastructure would be immediately available at Mittersill. Therefore, minor displacement effects would be expected to remain the same.

Alternative 2

Montane spruce-fir habitat

There would be no direct effects under the No Action Alternative, since no actions would take place. Indirect effects would be the same as the current condition. Since trails at the Mittersill parcel would not be maintained, trails would eventually revegetate over time and increase the amount of this habitat available. However, because spruce and fir grow relatively slowly, change over the next five years would be incremental and habitat availability would be generally consistent with current conditions. Only infrequent disturbance from summer hikers would be expected, consistent with current conditions.

Mixedwood habitat

Effects would be similar to those described for the montane spruce-fir habitat. Use and habitat availability would not be expected to change significantly in the near future. However, because of increasing patrol of unauthorized cutting, in the long term, regenerating mixedwood would continue to encroach on the former trails at Mittersill. In the northern part of the parcel, this would contribute to the “shrubbiness” of the existing habitat, improving habitat conditions for species such as chestnut-sided warbler and magnolia warbler, which have few areas of suitable habitat in the analysis area.

Open habitat

Open habitats would begin to be reduced as trails slowly revegetate. In the next 5 years, this would not be expected to be a significant change, as trees would take longer before the habitat would offer substantial differences in structural conditions for wildlife.

Cumulative Effects

The analysis area for cumulative effects for wildlife includes the land encompassed by the former Mittersill and Cannon Mountain ski areas. These areas were chosen because: 1) if the Proposed Action is implemented, future operations at Mittersill would encompass the entire ski area, not just

the lands proposed for exchange; and 2) Cannon Mountain's adjacent operations may contribute similar actions and effects that may have cumulative effects to wildlife species or habitats.

The temporal scope of cumulative effects for wildlife is five years in the past and five years in the future (2003 to 2013). This allows an evaluation of recent management at both Mittersill and Cannon Mountain, as well as future possible actions based on the recently updated Mittersill Master Development Plan. Mittersill has been officially inactive during the last 5 years, although winter recreation use and unauthorized trail maintenance has occurred as described above.

The Mittersill Master Development Plan (MDP) includes proposals for conceptual actions proposed for implementation in the next five years as described above in Efficient Land Management. While these projects are identified in the MDP, these projects are not funded at this time. No development details are available for these projects; these projects are not considered reasonably foreseeable future actions within the next 5 years for the purposes of cumulative effects analysis.

Alternative 1 – Proposed Action

Montane spruce-fir habitat

Implementation of any future project identified in the Mittersill Master Development Plan would not change the amount of habitat available for species in this group. The vast majority of this habitat occurs above 2,500 feet in elevation, and the MOU would limit vegetation clearing to the existing trail footprint. Therefore, there would be no loss of suitable habitat.

Winter use at Mittersill would be expected to increase, especially if lift reconstruction is completed some time in the future. Use of the Taft Trail that connects the Cannon Mountain tramway terminus to the Mittersill summit would increase, as skiers could readily return to Cannon Mountain via the proposed shuttle. This human activity would have little effect on migratory species, since they would not be present in the winter, but could result in some additional disturbance to resident wildlife species such as spruce grouse or voles. Since the bulk of the disturbance would be limited to the trails, wildlife should be able to retreat to cover without significant energy expenditure. Over time, the amount of disturbance may lead to some reduction of occupied habitat adjacent to the trails, but would not have a measurable impact on population viability for any species.

During the summer, the habitat would be protected from disturbance for most of the season because the MOU limits large events, mountain biking, and trail maintenance activities above 2,500 feet (which is most of the habitat) to early summer or late fall. This would help assure that reproductive success would be maintained. Although this would be prescribed to conserve Bicknell's thrush, it would have beneficial effects to all wildlife species in this habitat.

Mixedwood habitat

The regeneration age of this habitat type may be lost as trails in the northern part of the parcel below 2,500 feet are reclaimed and converted to open habitat. This would reduce occupancy of the area by species preferring this type of shrubby vegetation and limit occurrence to small patches along trail edges. Effects from skiing and other winter use would be similar to those described for the montane spruce-fir habitat, although there would probably be less wildlife use in this habitat because it has little thermal cover to provide shelter. However, much of this habitat is below 2,500 feet elevation, so there would be no summer seasonal restrictions on maintenance activities or other recreational events. Also, much of the mature habitat in the northern part of the parcel is interspersed with ski trails, to the point where increased disturbance in this area would be likely to reduce most of the area's suitability. Habitat in the southeastern part of the parcel would likely remain unimpacted, since it lies apart from the main Mittersill and Cannon Mountain trail networks. This may help provide a source of habitat for birds in the area, although its steepness might make it less appealing to other vertebrates such as deer.

Open habitat

Open habitat would remain more or less the same in this alternative, with the possible exception of some increase as regenerating mixedwood habitat on existing trails is reclaimed when trail edges are cleared. There is abundant open habitat in the analysis area, although the vast majority of it is made up of ski trails. During the winter, these habitats would not be used often, except potentially as travel corridors at night by species such as bobcat or coyote. Human disturbance caused by skiing would not be conducive to allowing wildlife to persist in winter during the day. However, in the summer, activity levels would be expected to drop considerably from winter levels. Summer activities at Cannon focus primarily on and around the tram; there is little hiking along the ski trails at Cannon. Similar or even more limited use would be expected at Mittersill. Based on anecdotal evidence, it appears that past levels of activity have not seriously affected wildlife. It has not been uncommon to see black bears on the Cannon Mountain slopes during the spring and early summer. Significant summer increases in use would not be expected in the analysis timeframe, so effects in this habitat would be similar to direct and indirect effects throughout the analysis area.

Alternative 2

Montane spruce-fir habitat

Under the No Action alternative, trails at the Mittersill parcel would not be maintained. Over time trails would revegetate and increase the amount of this habitat available. Because spruce and fir grow relatively slowly, change over the next five years would be incremental and habitat availability would be generally consistent with current conditions.

Since habitat availability would not change significantly in the next 5 years and no additional use would occur, there would be no cumulative effect to the species that occupy this habitat type.

Mixedwood habitat

Similar to the montane spruce-fir habitat, there would be no expected increase in recreation use, so no cumulative effect to species occupying this habitat type.

Open habitat

Similar to the montane spruce-fir habitat, there would be no expected increase in recreation use, so no cumulative effect to species occupying this habitat type

Sentinel

Affected Environment

Wildlife habitats found at Sentinel are dominated by hardwood, mixed-wood, and softwood stands. Various age classes have been created through past timber harvest. Regeneration age class (0-9 years old) is the most limited, with the last timber sale being completed 10 years ago in 1998. Some older regeneration habitat is available in small patches (1/2 to 1 acre in size), but the majority of the parcel is mature.

Key Elements for Wildlife

The Proposed Action would transfer Sentinel Mountain from state to federal ownership. Future projects at this site are not yet proposed or determined and would require additional site-specific project analysis in compliance with NEPA. Therefore, this analysis will address wildlife in a more programmatic sense, focusing primarily on the amount of habitat that would come into federal ownership upon implementation of the Proposed Action.

Indirect Effects

Alternative 1

Montane spruce-fir habitat

There is no habitat of this type at Sentinel, therefore no direct or indirect effects could occur. Overall, including the indirect effects of the Proposed Action on Mittersill, this land exchange would result in a net decrease of this habitat type on the WMNF.

Mixedwood habitat

The bulk of Sentinel is mixedwood or hardwood. Indirectly the Proposed Action would result in an increase of mixedwood habitat available for wildlife habitat on the WMNF, but there would be no on-the-ground effect of the proposed exchange.

Open habitat

Open habitats do not exist in substantial amounts at Sentinel so an exchange would result in a net loss of this type of habitat on the WMNF. Similar to the mixedwood habitat, there would be no on-the-ground effect of the proposed exchange.

Alternative 2

Under the No Action alternative, no land exchange would occur; Sentinel would remain under state ownership and management. The WMNF would not gain additional mixedwood habitat. The state's management goals and activities would likely remain consistent with past projects and opportunities. There would be no foreseeable indirect effects of the No Action Alternative.

Cumulative Effects

The analysis area for cumulative effects for wildlife includes the Sentinel parcel proposed for exchange, as well as the two parcels of WMNF land that adjoin it to the east and west. The Sentinel piece is proposed for exchange as a connection between the two federal parcels administered by the WMNF. An analysis that includes all of these parcels allows a more appropriate assessment of habitat connectivity.

The temporal scope of cumulative effects for wildlife is five years in the past and five years in the future (2003 to 2013), primarily to be consistent with the analysis for the Mittersill parcel. At Sentinel, the most prominent activity in the last 5 years has been continued hiker use of the Appalachian Trail as it passes through the parcel. During the winter, snowmobile activity occurs on the Cape Moonshine Road. Past timber harvest has occurred on the parcel, but not in the last 5 years. Previous small patch cuts and group cuts approximately 10 years old have regenerated well (R. Boyer, pers. com. 2008) and now provide small areas of older regeneration habitat.

Alternative 1

Montane spruce-fir habitat

With no habitat available in the exchange area, there can be no cumulative effects.

Mixedwood habitat

Obtaining this parcel would connect the similar habitats to either side of the Sentinel parcel under a single owner. This would allow for more landscape level management of wildlife habitat, but without a site-specific proposal, there would be no cumulative effect on the ground.

Disturbance from human activities would likely continue at levels similar to the current condition. The snowmobile activity on Cape Moonshine Road would likely continue in the future, since the trail simply bisects the Sentinel piece and is part of a longer trail. Other incidental human uses such as hiking along the Appalachian Trail would not be expected to change as

a result of this one parcel changing ownership. Therefore, no cumulative effects would be anticipated.

Open habitat

As with the montane spruce-fir habitat, if there is no habitat available, there can be no cumulative effects.

Alternative 2

With no indirect effects, there are no cumulative effects.

Norway spruce at Sentinel Mountain.



3.5 Federally Threatened, Endangered, and Proposed Species and Regional Forester Sensitive Species

Biological Evaluation

A Biological Evaluation (BE) for Federally Threatened, Endangered, and Proposed Species and Regional Forester Sensitive Species was completed for the Proposed Action and its alternative. The process used and the sources examined to determine potential occurrence of TES presence are listed in the BE. During Forest Plan revision, best available science was used to evaluate TES species and species viability. Information gathered during the species viability analysis was used in updating the WMNF Regional Forester Sensitive Species list. The BE for this project incorporates by reference information on species viability (FEIS, Appendix F) and TES species used during Forest Plan revision including the Biological Evaluation of the White Mountain National Forest Land and Resource Management Plan Revision (FEIS, Appendix G).

Based on a review of all available information, it was the Forest Wildlife Biologist's and Forest Botanist's determinations that potential habitat may occur within the project area for one federally threatened species and eight Regional Forester Sensitive Species:

- Canada Lynx (*Lynx canadensis*) — Federally Threatened
- Eastern small-footed myotis (*Myotis leibii*) — Regional Forester Sensitive Species
- Northern bog lemming (*Synaptomys borealis sphagnicola*) — Regional Forester Sensitive Species
- Bicknell's thrush (*Catharus bicknelli*) — Regional Forester Sensitive Species
- American peregrine falcon (*Falco peregrinus*) — Regional Forester Sensitive Species
- Northern comandra (*Geocaulon lividum*) — Regional Forester Sensitive Species
- Mountain avens (*Geum peckii*) — Regional Forester Sensitive Species
- Broad-leaved twayblade (*Listera convallarioides*) — Regional Forester Sensitive Species
- Heartleaf Twayblade (*Listera cordata*) — Regional Forester Sensitive Species

The BE details the current condition, analysis areas, analysis timeframes, and direct, indirect, and cumulative effects for these species. Summaries of the effects determination and rationale for each species are provided below.

Effects Determination and Rationale – Federally Threatened Species

In general, effects for TES species are expected to be fairly minimal because there are no direct effects and very few indirect effects occurring as a result of land ownership exchange. In addition, the existence of the MOU (see Appendix B) between the White Mountain National Forest, State of New Hampshire, and Audubon Society of New Hampshire assures that the much of the habitat within the Mittersill parcel would remain protected regardless of ownership.

Canada Lynx

All alternatives *may affect but would not likely adversely affect individual Canada lynx or associated habitat.*

Rationale

- 1) Based on the recent lynx sightings (NHFGD 2006) on the northern part of the Forest and the presence of some suitable habitat, there is a chance that Canada lynx could occur in the project area although the potential is low due to the relatively few sightings of lynx on the Forest in the past few decades (USDA Forest Service 2005a, Appendix G, Page 69, USDA Forest Service 2006b, c), the distance between source populations and the project area, potential barriers or deterrents along the way, and the extensive suitable unoccupied habitat in other parts of the WMNF that does not have this level of recreational activity (disturbance) present.
- 2) There would be a net loss of federally owned habitat in the Proposed Action; however, 100 acres is a small amount and habitat within a ski area is not considered optimal because of the potential for human disturbance. In addition, this loss of National Forest System lands habitat on paper would not change the actual habitat available for lynx. The existing MOU would maintain lynx habitat (in terms of vegetative condition) in perpetuity.
- 3) In both alternatives, the magnitude of summer change in human use levels would not be expected to result in substantially different effects than what currently exist.

Effects Determination and Rationale – Regional Forester Sensitive Species (RFSS)

Eastern small-footed myotis

Both alternatives would have *no impact* on eastern small-footed bats

Rationale

- 1) Bats are only present on the Forest during the non-hibernation season (May through August), so won't be present during the season with the heaviest anticipated level of activity.
- 2) Suitable rock crevices were not readily apparent during field reviews. It is possible that suitable habitat exists in the project area, but the quality

of this habitat would be considered to be far below that of the cliff and talus areas in nearby Franconia Notch State Park. Therefore the likelihood of small-footed bats occurring in the project area is very low.

- 3) Eastern small-footed bats roost under rocks on hillsides and open ridges, in cracks and crevices in rocky outcrops and on talus slopes, as well as in some manmade structures (FEIS, Appendix G, pp 224-227; J. Chenger pers. comm.. 5/2/2008). People are unlikely to access these areas.
- 4) The quality and availability of foraging habitat would remain essentially unchanged.
- 5) White-Nose Syndrome does not currently occur on the WMNF, so it is not considered an immediate threat to eastern small-footed bats. If WNS does spread to the WMNF, proposed activities would not appear to contribute to negative impacts.

Northern Bog Lemming

The No Action Alternative would have *no impact* on northern bog lemming. The Proposed Action *may impact individual northern bog lemmings, but would not likely cause a trend to federal listing or loss of viability.*

Rationale

- 1) There are no bogs or sedge meadows in the project area. The amount of suitable wet habitat within the project area is very small.
- 2) Northern bog lemmings are extremely rare in New England. The likelihood of an individual occurring in the project area or cumulative effects analysis area is considered low.
- 3) Although snow compaction may impact northern bog lemmings, this area would be very small and may not be much more substantial than what currently occurs.

Bicknell's Thrush

Implementation of either alternative *may impact individual thrush, but would not likely cause a trend to federal listing or loss of viability.*

Rationale

- 1) Although the Bicknell's thrush population is declining, individuals have been found during monitoring every survey year since 1993. Bicknell's thrush are routinely identified in the analysis area, including both Cannon Mountain and Mittersill sites.
- 2) Under the Proposed Action, an MOU to protect existing Bicknell's thrush habitat would be implemented, meeting the intent of the Forest Plan standard of no net decrease in suitable habitat.
- 3) Although human disturbance has the potential to cause negative impacts, the MOU would restrict trail maintenance, large events and mountain biking so that breeding success would not likely be impacted. Other activities would include an invitation to all MOU parties (includ-

ing the WMNF) to comment prior to implementation. In both alternatives, the amount of summer use that would be allowed during the breeding season is considered a minor impact, especially considering that most, if not all, use would take place on the existing trails, which are not considered Bicknell's thrush habitat.

- 4) The MOU also includes a provision for frequent and continued monitoring of Bicknell's thrush and its habitat at Mittersill, which would help in keeping up to date on the status of habitat extent and population trends here.

American Peregrine Falcon

The No Action Alternative would have *no impact* on American peregrine falcon. The Proposed Action Alternative *may impact individual peregrine falcons, but would not likely cause a trend to federal listing or loss of viability.*

Rationale

- 1) There are no active or historical eyrie sites at either Mittersill or Sentinel. There is an active peregrine falcon eyrie on the cliff side of Cannon Mountain.
- 2) Peregrine falcons migrate out of the Forest during the winter, which is when the most potential for human disturbance activities would occur.
- 3) The likelihood of impact is low during the summer, since large group events and mountain biking would be prohibited for much of the season, therefore disturbance levels should remain low. Increased disturbance could result from reconstruction of infrastructure at Mittersill, but would likely be isolated and short-term in nature.

Broad-leaved Twayblade and Heartleaf Twayblade

Both the No Action Alternative and the Proposed Action Alternative may impact individual plants of broad-leaved twayblade and heartleaf *twayblade but would not likely cause a trend to federal listing or loss of viability.*

Rationale

- 1) The project area was searched by qualified individuals at an appropriate time of year to identify this species. No individuals were located. Small pockets of habitat likely occur in the project area.
- 2) The MOU between the USDA Forest Service, State of New Hampshire, and Audubon Society of NH for the protection of Bicknell's Thrush habitat above 2,500 feet would provide some protection for these species.

- 3) Forest Plan Standards and Guidelines would protect areas of suitable habitat, e.g., springs (USDA Forest Service 2005b Chapter 2, pages 24-26).
- 4) Protections and processes set forth in the NH Native Plant Protection would provide for protection of state listed plants on state lands.

**Northern
comandra**

Both the No Action Alternative and the Proposed Action Alternative *may impact individual plants of northern comandra but would not likely cause a trend to federal listing or loss of viability.*

Rationale

- 1) The project area was searched by qualified individuals at an appropriate time of year to identify this species. No individuals were located. Small pockets of habitat likely occur in the project area.
- 2) The MOU between the USDA Forest Service, State of New Hampshire, and Audubon Society of NH for the protection of Bicknell's Thrush habitat above 2,500 feet would provide some protection for these species.
- 3) Protections and processes set forth in the NH Native Plant Protection would provide for protection of state listed plants on state lands.

**Mountain
avens**

Both the No Action Alternative and the Proposed Action Alternative *may impact individual plants of mountain avens but would not likely cause a trend to federal listing or loss of viability.*

Rationale

- 1) The MOU between the USDA Forest Service, State of New Hampshire, and Audubon Society of NH for the protection of Bicknell's Thrush habitat above 2,500 feet would provide some protection for these species.
- 2) Protections and processes set forth in the NH Native Plant Protection would provide for protection of state listed plants on state lands.

3.6 Vegetation

Mittersill

Affected Environment

Mittersill encompasses approximately 100 acres and ranges in elevation from 2,100 to 3,600 feet. The existing forest transitions from mid-elevation birch (*Betula papyrifera* and *B. alleghaniensis*) to high elevation spruce/fir (*Picea rubens*, *Abies balsamea*) across steep, rugged terrain, with spruce-fir being dominant. The vegetation at the upper elevations is increasingly stunted and dense. At the upper-most sections of Mittersill and along the ridgeline to Cannon Mountain, vegetation is sparse and largely wind-swept (krummholz like tree growth), typical of a mountain top condition. Understory vegetation includes mountain ash (*Sorbus decora*) and blueberries (*Vaccinium spp.*). Generally, the forest varies in age, diameter class, and vertical structure. However, few trees attain merchantable size (5.0 inch diameter at breast height) and few trees exceed 40 feet in height. “Dog-hair” thickets of spruce-fir seedlings and saplings are common adjacent to the ski trails and throughout the forest within pockets created by natural disturbances such as windthrow and ice damage. Many birches still display damaged crowns from the ice storm of 1998. Approximately 20 acres of the 100-acre parcel are occupied by ski trails that had been established and maintained between the 1930s and the 1980s. Vegetation within the trails is dominated by blueberries, other shrubs, grasses and forbs but also includes spruce and fir seedlings. The spruce and fir seedlings are revegetating the existing ski trails.

This section will discuss the effect on acres of forest land in state and federal ownership and management.

Acres of land qualifying as “forest land”

“Forest land” is land that is at least 10 percent occupied by forest trees of any size or formerly having had such tree cover and not currently developed for non-forest use (Forest Plan, Glossary, p. 10). Of the 100-acre Mittersill parcel, approximately 80 acres are forested while 20 acres (trail network) are comprised of shrubs, grasses, forbs, and scattered spruce and fir seedlings. Effects on acres of forest land will be measured by net change of forest land acres. For instance, existing acres of forest land converted to non-forest land acres due to creation of new ski trails or other development.

Indirect Effects

The analysis area for the indirect and cumulative effects on timber resources is the 100 acre Mittersill parcel. This was selected as the analysis area because it is where effects on timber resources as a result of the proposed exchange will take place. The analysis area is limited to Mittersill because that is the only area potentially affected by the proposed exchange. The

proposed exchange does not include any activities on Forest Service lands immediately adjacent to or outside of the Mittersill boundaries.

Alternative 1

The direct effect of the Proposed Action would result in the transfer of ownership of Mittersill to the state and of Sentinel from the state to federal ownership. A direct effect of the Proposed Action is a net gain in WMNF acreage of 144 acres (see Table 2, Comparison of Alternatives). A land exchange in and of itself does not result in any direct effects on the timber resources.

Acres of Forest Land

Approximately 20 acres of Mittersill are occupied by openings which are the abandoned ski trails formerly authorized under a Special Use Permit (see above). Site inspections indicate that the 20 acres of ski trails are less than 10 percent occupied by forest trees, thus, the ski trails do not qualify as forest land (Boyer 2008). The remaining 80 acres of the parcel qualify as forest land.

The Proposed Action does not include clearing new trails or revegetating existing trails; the exchange is administrative in nature and would result in no net change in acres of forest land within the Mittersill parcel. Therefore, there would be no direct effects on acres of land qualifying as forest land, though ownership of the forest land would transfer from federal to state ownership.

The indirect effects of the Proposed Action would be maintenance of existing vegetation and timber resources through mowing and trimming within and along the 20 acres of existing ski trails. The remaining 80 acres of forest land within the parcel would remain forest land. No net change in acres of forest land within Mittersill are anticipated.

Alternative 2

Under No Action alternative, Mittersill would remain in federal ownership. Vegetation would re-establish itself as increased enforcement of unauthorized cutting would eliminate trail maintenance activities.

Acres of Forest Land.

The indirect effects of the No Action alternative would result in re-vegetation of the ski trails. Ultimately, there would be a 20 acre increase in forest land, as forest trees become re-established within the ski trials and occupy greater than 10 percent of the area.

Cumulative Effects

The temporal scope for cumulative effects on timber resources is ten years past and ten years into the future (1998-2018). The temporal scope was chosen because it represents the time period that an alpine-like area cleared of trees would re-vegetate to a fully stocked condition with commercial tree species. The cumulative effects analysis area is the same as the direct and indirect effects analysis area and the rationale is the same.

Alternative 1

Under the Proposed Action, the cumulative effects would be the same as those discussed under the direct and indirect effects. The existing ski trails would be maintained indefinitely, thus, there would be no change in the acres of forest land. In considering the past, present, and reasonably foreseeable future activities, there are no other known cumulative effects on the timber resources.

Alternative 2

Under the No Action alternative, the cumulative effects would be the same as those discussed under the direct and indirect effects. There would be a 20 acre increase in acres of forest.

Sentinel

Affected Environment

Sentinel is characterized by moderately sloped terrain ranging from approximately 1,300 to 1,800 feet in elevation; vegetation is dominated by northern hardwood, mixedwood and softwoods stands of various age and size classes. In the mid-1800's the parcel was maintained as pasture land and later abandoned. The present day forest has been sustainably managed for timber resources since the 1960's with the most recent timber harvest taking place in 1998 (email correspondence w/ David Falkenham, NH Regional Forester). The parcel is easily accessible as Cape Moonshine Road runs through the parcel in a north-south direction. In addition, there are minimal physical limitations for resource management, such as cliffs, boulder fields, or steep slopes.

Acres of Forest Land

Sentinel has approximately 244 acres qualifying as forest land. Effects on acres of forest land will be measured by net change of forest land acres.

Indirect Effects

The analysis area for the indirect and cumulative effects on timber resources is the 244 acre Sentinel parcel. This area was selected as the analysis area because it is the area within which effects on timber resources as a result of the proposed exchange would take place. The analysis area is limited to the Sentinel parcel because that is the only area potentially affected by the proposed exchange. The proposed exchange does not include any activities on Forest Service lands immediately adjacent to or outside of the Sentinel parcel.

Alternative 1

The Proposed Action would result in the exchange of Sentinel from state ownership to federal ownership. A land exchange in and of itself does not result in any direct effects on the timber resources.

Acres of Forest Land

Sentinel has approximately 244 acres qualifying as forest land. An indirect effect of the proposed action is net gain in WMNF acreage of 144 acres (see Table 3, Comparison of Alternatives).

The Proposed Action includes designating a portion of Sentinel as MA 8.3, Appalachian National Scenic Trail and the remainder as MA 2.1, General Forest Management, as described in the Forest Plan. The corridor designated as MA 8.3 would include the area within 500 feet of the trail tread. This would include and exceed all of the AT foreground or “seen area” (Forest Plan 3-53). The lands beyond 500 feet from the trail, approximately 204 acres, would be designated as MA 2.1; both commercial timber management and salvage operations could be considered and could be implemented in MA 2.1 following site specific management proposals and analysis (Forest Plan, 3-3 to 3-8). An indirect effect of the exchange would be an increase of approximately 204 acres of forest land suitable for vegetation management, while providing appropriate protection to the foreground of the AT.

This approach for designation of management areas is in concert with the objectives for management of the AT corridor and adjacent forest land. The Forest Plan provides guidance in this situation via MA 8.3, Forest Plan Vegetation Guideline 1 (Forest Plan 3-53) which describes guidelines for commercial timber management and salvage sales beyond the AT corridor where adjacent to MA 2.1

G-1 Where the AT management area adjoins MA 2.1, commercial timber management and salvage operations are allowed in that portion of the Appalachian Trail MA between the trail footpath and the 2.1 Management Area, but only outside the foreground area as defined in the Scenery Management System (SMS). The foreground zone is determined by site-specific analysis of the area as seen from the AT. Everywhere else in the AT management area, commercial timber management and salvage sales are prohibited.

Therefore, it is appropriate to consider the area beyond 500 feet from the trail for designation as MA 2.1; these lands would be available to meet the following Forest Plan Goals:

Provide high quality sawtimber and other timber products on a sustained yield basis.

The approximately 40 acres within the 500 feet of the AT would be considered unsuitable for vegetation management.

Alternative 2

Under the No Action Alternative, the state would retain ownership of Sentinel; the parcel would continue to be managed sustainably for timber resources by the state.

Cumulative Effects

The temporal scope for cumulative effects on timber resources is ten years past and ten years into the future (1998-2018). The cumulative effects analysis area is the same as the direct and indirect effects analysis area and the rational is also the same.

Alternative 1

Under the Proposed Action, the cumulative effects would be the same as those discussed in the direct/indirect effects section. In addition, it is reasonably foreseeable that sustainable management for timber harvest would continue within Sentinel – similar to management while under state ownership. However, any future project proposals for vegetation management, trail construction, etc. would be subject to site specific environmental analysis in compliance with the National Environmental Policy Act.

Alternative 2

The cumulative effects of the no action alternative are the same as discussed in the direct and indirect effects section.

3.7 Invasive Plants

Affected Environment

The Analysis Area for indirect effects to invasive species is the Project Area, including all lands proposed for exchange. This area was selected because any indirect effects resulting from the exchange of land would not be influenced by any action beyond the boundaries of these parcels. The Analysis Area for cumulative effects to invasive species is all lands within the Towns of Franconia and Piermont. This area was selected due to both known and unknown infestations of non-native invasive species (NNIS) in these towns serving as source populations for infestation of these two parcels. The temporal scope for invasive species is five years in the past and five years in the future (2003 to 2013). This is the life span of the Mittersill Master Development Plan and is considered to be the period during which most active ground disturbing activities would take place.

Invasive plants can spread to other disturbed habitats by wind, water, wildlife, humans or vehicles transporting seeds or vegetative parts of the plant. Under Executive Order 13112 (February 3, 1999) federal agencies whose actions may affect the status of invasive species shall not authorize, fund, or carry out actions that are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species.

The WMNF has been working with The New England Wild Flower Society to determine species and locations of non-native invasive plant species. Findings to date have produced a list of invasive species that exist on or near the National Forest. The majority of locations observed have been on the perimeter of the National Forest, primarily along roads, highways and in developed areas such as towns, residential areas and recreation areas.

Occupied Habitat: A GIS mapping layer of invasive plants near the two parcels proposed for exchange, in conjunction with site-specific field surveys at the Mittersill parcel, were used to evaluate the likelihood of NNIS spreading to the project area and the environmental consequences of their potential establishment.

Mittersill

No invasive species were identified on the lands proposed for exchange. The Town of Franconia, Franconia Notch State Park and the area of Cannon Mountain Ski Area do contain multiple infestations of a variety of species. New infestations continue to expand northward along Interstate 93. Invasive plants identified or recorded include Japanese knotweed, brownray knapweed, Japanese barberry, winged euonymus (burning bush), non-native shrub honeysuckles, purple loosestrife, goutweed, yellow-flag iris, and coltsfoot. Most of these species were documented during surveys by the New England Wild Flower Society as ornamental plantings or local escaped populations on private lands in the village of Franconia. The

brownray knapweed is abundant on verge of the Peabody Slopes parking lot at Cannon Mountain. Only a single infestation occurs on National Forest lands. Eradication efforts elsewhere occur only sporadically if at all. The single infestation on National Forest lands in Franconia is brownray knapweed (*Centaurea jacea*). It is located at and near the Skookumchuck Parking Area on Route 3. It received control treatments in 2007, and will be subject to these same treatments in 2008 as part of the WMNF Forest-wide Invasive Plant Control Project.

Sentinel

Little data is available regarding Non-Native Invasive Species at Sentinel. Direct field surveys of the property were not conducted as part of this analysis. The Town of Piermont is known to harbor isolated populations of NNIS, but the survey efforts of the New England Wild Flower Society and on-going WMNF survey efforts for these species focused on areas closer to the main body of the Forest. A single known infestation of Japanese knotweed (*Polygonum cuspidatum*) is known to occur in the Appalachian Trail corridor adjacent to this parcel along the Cape Moonshine Road near the Appalachian Trail crossing. It received control treatments in 2007, and will be subject to these same treatments in 2008 as part of the WMNF Forest-wide Invasive Plant Control Project. Specifics on other infestations within the Town of Piermont are largely unknown, but anecdotal and observational data reveal that private lands within that town contain populations of a number of invasive species.

Indirect Effects

Determination of Risk

Forest Service Manual 2080.44.6 outlines the responsibilities of Line Officers to determine the risk of NNIS introduction or spread as part of the NEPA process for proposed actions. Risk assessments are to be completed for any ground disturbing activities (FSM 2081.03). For projects having moderate to high risk of introducing or spreading noxious weeds (as determined by project Risk Assessments), the project decision document must identify noxious weed control measures that should be undertaken during project implementation to reduce the potential environmental effects of NNIS (FSM 2081.03-1).

The overall risk rating assigned for the Proposed Land Exchange is *low* (Project Record).

Mittersill

Alternative 1

An indirect effect of the Proposed Action is the potential for invasive species to migrate into the Project Area from surrounding areas during any trail maintenance activity including tree clearing from existing trails, trail re-shaping, and water bar creation/clearing. These actions may require the use of equipment that may contain propagules of NNIS and would create

soil disturbance leaving the site vulnerable to colonization by NNIS from the surrounding landscape. The risk of migration is greatest for 1-2 years after these activities, and decreases over time when native plant species begin to recolonize disturbed areas.

Alternative 2

Under the No Action Alternative, there would be no change in state or federal ownership of lands; no indirect effects are anticipated.

Sentinel

Alternative 1

There would be no indirect effects of the Proposed Action at Sentinel; the change in ownership would not result in the introduction of NNIS or migration routes.

There are no indirect effects of the Proposed Action at Sentinel. No ground disturbing activities are proposed; the proposed exchange would not introduce new migration routes or sites for invasive species. Any future proposed activity at Sentinel would require further analysis and evaluation of the effects of that action on NNIS. If the Proposed Action was implemented, Forest Plan Standards and Guidelines relating to NNIS would apply to all subsequent projects proposed at Sentinel.

Alternative 2

There is no indirect effect of the No Action Alternative on NNIS.

Cumulative Effects

Mittersill

Alternative 1

Most known locations of invasive species are in developed landscapes surrounding the Project Area. These known populations do not appear to be rapidly expanding into adjacent forested habitats due to the inherent stability of closed-canopy ecosystems. The ski trails at Mittersill have in the distant past seen a great deal of disturbance from clearing and subsequent maintenance of trails and lifts. Currently these trails are generally treeless and with varying degrees of seepage and soil moisture. The current stability and lack of active ground disturbing activities makes NNIS colonization highly unlikely, however, this could change with the introduction of disturbance into these areas. The implementation of projects envisioned in the Mittersill MDP may cause increased use of the existing trails by hikers, mountain bikers and other warm and cold season recreational uses. This increased use may introduce propagules to the site via hiking boots, bicycles and other equipment. Future trail maintenance, lift maintenance, construction, and other ground disturbing activities proposed as part of the master plan may create suitable site conditions for colonization by NNIS. Yet-to-be-specified future development associated with the expansion of ski operations at Mittersill will cause ground disturbance that will contribute to and exacerbate the existing NNIS infestations on the surrounding

landscape. The NNIS occupying these lands outside the project area may serve as source populations and be unintentionally transported into the project area via the activities mentioned above. The cumulative effect of the proposed exchange on the project area, as well as on surrounding private land is an increased risk of introducing invasive species onto Mittersill and interior areas of the White Mountain National Forest.

Alternative 2

There would be no direct, indirect or cumulative effects at Mittersill resulting from the No Action Alternative. This alternative would maintain the current condition at Mittersill and would not introduce new migration routes or sites for invasive species.

Sentinel

Alternatives 1-2

There would be no direct, indirect or cumulative effects from either alternative at Sentinel Mountain. No ground disturbing activities are part of any alternative, therefore neither alternative would introduce new migration routes or sites for invasive species. Any future proposed activity at Sentinel Mountain, as stipulated by NEPA, would require further analysis and evaluation of the effects of that action on NNIS. Forest Plan Standards and Guides relating to NNIS would apply to all future proposed projects at Sentinel Mountain.

3.8 Heritage Resources

Mittersill

Affected Environment

The Forest Archaeologist conducted a pedestrian Cultural Resource survey of Mittersill in the fall of 2007 (see CRRR# 08-4-3). Pre-field research did not produce any evidence of human use of the ridgeline and its steep slopes, although the ridgeline could easily have been used occasionally by Native Americans to access the high country from the known travel route through Franconia Notch.

The Forest Archaeologist took care during the pedestrian archaeological survey to look for stone artifacts and workable rock specimens that might have been transported in by aboriginal peoples; none were found. It appears that the sole visible human remain on the parcel is the historically important Richard Taft downhill ski trail.

In 1929, Katherine Peckett, daughter of the owner of Peckett's Inn in Sugar Hill, NH, convinced her father to open the Inn in winter and employ Austrian ski instructors. Peckett's-on-Sugar Hill became the first resort-based ski school in the United States. During the summer of 1932, "Kate" Peckett worked to raise funds to construct a ski trail on Cannon Mountain in Franconia Notch (Leich 2006:2). Construction of the Taft Trail took place in 1933 on land owned by the state and by the heirs of Richard Taft, the 1852 builder of the Profile House grand hotel in Franconia Notch. The Taft trail was the first timed downhill ski racing trail of its kind in the country. It was the model for subsequent ski racing trails built throughout the United States in the 1930s (Leich 2005:1).

In 1938 the first aerial tramway in the United States was built at Cannon Mountain. For the first time, a major U.S. ski mountain could be skied without a long climb uphill. Because of the tramway, Cannon became the leading Eastern ski area at that time, rivaled only by Sun Valley in the West (Leich 2005:5)

From the 1930's through the late 1980's the ski trails on Mittersill, including the Taft Trail, were established, maintained and operated by the Franconia Development Corporation under Special Use Permit (on federal lands) and lease (on state lands). The Special Use Permit was terminated at the request of the Franconia Development Corporation in the late 1980's at which time, the lifts were closed and formal trail maintenance ceased. The trails and lifts on Mittersill, and on adjoining state lands outside of Mittersill, have remained dormant since that time.

Historical photographs of the White Mountain National Forest show the Mittersill section of the Taft ski trail in the 1930s; it appeared in the 1930's much as it does today. The portion of the Taft Trail that lies on federal lands is not currently authorized for lift-served downhill skiing. Informal trail maintenance has occurred; this maintenance has retained the trail footprint of Mittersill Ski Area essentially intact since its closure in the late 1980's.

Indirect Effects

Alternative 1

For the purpose of this analysis, the indirect effects area is defined spatially as the 100 acres proposed for exchange because there would be no effects to heritage resources beyond the proposed parcel. Temporally, the cumulative effects analysis is defined by 10 years before and 10 years after because this is the time period that would result in the maximum change in vegetation, and hence render the most change in the character of the ski trails in the parcel.

There will be no indirect effect of the exchange with regard to the protection of known or yet undiscovered heritage resources that will be afforded by the new landowner because the WMNF currently provides similar protection as would the state. The Proposed Action would transfer ownership of Mittersill to the State of New Hampshire. The State Historic Preservation Office holds responsibility for protection of heritage resources in accordance with Cultural Resource Laws on all state lands; transfer of heritage resources from federal to state ownership would result in no adverse indirect effect to heritage resources on Mittersill. The Proposed Action allows for the protection of historic values associated with the Taft Ski Trail as well as retention of its availability to the public for interpretation, and enjoyment. The land exchange would place all cultural and historical features at Mittersill under state management.

As part of its efforts to stimulate tourism and promote understanding and appreciation of heritage resources, the state's tourism program encourages the public to travel to historical and cultural sites year round. The Proposed Action would meet the goals of the tourism program by re-vitalizing and maintaining the Taft Trail.

Alternative 2

The direct effect of the No Action Alternative retains federal ownership of Mittersill. The direct effect of the Proposed Action retains the Taft Trail in multiple ownership; the state would retain ownership of the top (Cannon) portion of the Taft Trail and the bottom (Mittersill Ski Area) portion of the Trail. The center section of the Taft Trail that lies within the Proposed Action, would remain in federal ownership.

An indirect effect of the Proposed Action is that increased efforts to control unauthorized cutting of vegetation would allow natural processes to occur and result in complete revegetation of the Taft Trail where it lies on NFS lands. Portions above and below the federal section of the Trail may or may not be maintained by the state.

As an indirect effect of the No Action alternative, the Taft Trail would become indiscernible to the public and the Trail would no longer be a component of the state's four season tourism program.

Cumulative Effects

The analysis area is the same for cumulative effects as for indirect effects, above. Temporally, the cumulative effects analysis area is defined by the 10 years after implementation of the exchange because this is the time period that would result in the maximum change in vegetation, and hence render the most change in the character of the ski trails in the parcel.

Alternative 1

The cumulative Heritage effect of the Proposed Action is the retention of the Taft Trail and the network of ski trails at the Mittersill Ski Area in active status. The state tourism program could feature the Taft Ski Trail and the now dormant Mittersill Ski Area which both epitomize the rich ski history of New Hampshire. These two sites also reflect the objectives of the nearby New England Ski Museum located at the base of Cannon Mountain.

Alternative 2

The cumulative Heritage effect of the No Action Alternative would not revitalize the use of the historically important Taft Trail and Mittersill Ski Area. The No Action Alternative would not contribute to the New England Ski Museum's or the state's tourism initiative.

Sentinel

Affected Environment

The Forest Archaeologist did not conduct a pedestrian inventory of Sentinel State Forest, the affected environment in relation to heritage resources has not been fully explored.

With the exception of a 0.25 mile segment of the Appalachian National Scenic Trail, a literature review did not indicate the presence of any exceptionally unusual features, though required future surveys, associated with subsequent management proposals and analysis, may reveal new information.

Indirect and Cumulative Effects

The analysis area for indirect and cumulative effects is the Sentinel State Forest. No effects are anticipated beyond the boundary of the subject parcel.

Alternative 1

As an indirect effect of the Proposed Action, the Forest would provide protection for any heritage sites found on the parcel in Sentinel according to Federal and State Cultural Resource Laws and Regulations

All cultural sites located at Sentinel would be protected and managed following the WMNF Forest Plan which tiers to all Federal and State Cultural Resource Laws and requirements. Any future projects within Sentinel would be subject to site-specific environmental analysis and heritage surveys at the time of the proposal.

Alternative 2

The No Action alternative retains state ownership of Sentinel; this alternative would allow for State Cultural Resource law and regulation protection to continue, but not that of the Federal Government.

Cumulative Effects

There are no known cumulative effects of the Action or No Action alternatives for Sentinel.

3.9 Soil and Wetlands

Mittersill

Affected Environment

The soil resources of Mittersill have been previously evaluated by the USFS (Stephen Fay, retired, pers. comm. and reviewed by USFS Robert Colter, soil scientist). In Sentinel, soils have been mapped by the Natural Resources Conservation Service (NRCS) as part of the Grafton County area (NRCS 1999). In general, the soils found in the two areas belong to the spodosol soil order. The soil resources of Mittersill are included with several other factors that makeup the classification of the Ecological Land Types (ELT) classification, a USFS system. The ELT classifications are based on geomorphic landform, nature of soil substrates and the climax forest associations that reflect the ecological features of the surveyed lands. The purpose of this land classification system is to summarize the physical and ecological characteristics of the landscape and to assist in land management decision making processes.

Three major ELT's have been mapped at Mittersill: 2, 15h, and 15j (Figure 2). ELT 2, a mountain-top ecological land type, is found at the highest elevations in the study area and covers the ridgeline toward the former Mittersill Ski Area and the steep northwestern-facing side slopes. The soils within ELT 2 are typically bouldery to very bouldery, friable, non-plastic, rapidly permeable sandy loams with depths ranging from one to two feet to bedrock. The textures of the soils are moderately well to moderately poorly graded, with boulders comprising up to 60 percent of the total volume.

The central portion of the property consists of ELTs 15h and 15j. ELT 15h is found at elevations immediately below ELT 2. ELT 15h is associated with softwood forests on high, broad terrace-like slopes underlain by thick sediments. The soils are typically very poorly graded, moderately dense, moderately slowly permeable, slightly plastic, moderately well to imperfectly drained sandy loams. Surrounded cobbles of mixed rock types represent less than 20 percent of the soil volume.

ELT 15j is found at elevations immediately below ELT 15h. ELT 15j is associated with hardwood softwood forests on moderately high mountain slopes underlain by thick sediments. The soils are typically moderately dense to dense, poorly to very poorly graded, moderately slowly permeable, non-plastic to slightly plastic, very fine sand loams to slit loams. Subangular and subround cobbles and gravel comprise less than 10 percent of the total volume of the soil.

Wetlands are protected under Section 404 of the Federal Clean Water Act and by the State of New Hampshire pursuant to RSA Chapter 482-A and NH Administrative Code WT 100-800. Wetlands are defined as "those areas that are inundated or saturated with surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (Federal Register 1986). The US Army Corps of Engineers

(USACE) Wetland Delineation Manual of 1987 requires a site to have three characteristics to be defined as a wetland: 1) a prevalence of hydrophytes; 2) hydric soils; and 3) wetland hydrology. The US Fish and Wildlife Service (USFWS) has developed plant lists indicating the hydric category of each species for use in the field identification of wetlands. Data forms that assess these characteristics have been developed by the USACE.

Wetland investigations of the study area included the examination of stereo aerial photography, USGS topographic quadrangle maps, National Wetland Inventory (NWI) maps, the Natural Resource Conservation Service (NRCS) Soil Survey and field review. No wetlands were identified on Mittersill from the office examination of these existing information sources or from field review. Mittersill is at too high an elevation and too steep for jurisdictional wetlands to develop. The rapid runoff during storms and spring snow melt has scoured drainage channels down to bedrock at these elevations with little, if any, wetland vegetation along their edges. No jurisdictional wetlands were identified within Mittersill.

Indirect Effects

Mittersill

Alternative 1

There are no known indirect effect of the Proposed Action.

Alternative 2

With regard to the soil resources, there are no known indirect effects of the No Action Alternative.

Sentinel

Affected Environment

The soils in the Sentinel were previously mapped by the NRCS in 1986 as part of a soil survey of Grafton County Area, New Hampshire (NRCS 1999). Overall, the soils underlying the study area are classified as spodosols. Spodosols are characteristic of humid, cool, temperate areas in the northeast. Specifically, the soils in the study area can be divided into 7 associations: 77D-Marlow fine sandy loam, 15 to 25 percent slopes, very stony, 79D-Peru fine sandy loam, 15 to 25 percent slope, very stoney, 61D-Tunbridge-Lyman-Rock outcrop complex, 15 to 25 percent slopes, 255D-Monadnock and Hermon soils, 15 to 25 percent slopes, very stoney, 559C-Skerry fine sandy loam, 8 to 15 percent slopes, very stony, 701B-Becket-Skerry association, gently sloping, very stony, and 647B-Pillsbury fine sandy loam, 3 to 8 percent slopes, very stoney.

Sentinel has the elevations and slopes that are conducive to the possibility of wetlands and after review using the above methods, 12 acres of jurisdictional wetlands were identified, though additional field reconnaissance would be prudent to fully examine Sentinel in its entirety.

Indirect Effects

Alternative 1

The direct effect of the Proposed Action would be the transfer of ownership of Mittersill to the state. From the perspective of soils, the Proposed Action would exchange a soil landscape that has been disturbed for the purpose of the establishment and maintenance of ski trails for a fully forested, relatively undisturbed soil landscape at Sentinel.

An indirect effect of the Proposed Action would be the federal acquisition of approximately 12 acres of red maple wetlands.

Alternative 2

With regard to the soil resources, there are no known indirect effects of the No Action Alternative.

Mittersill and Sentinel

Cumulative effects

The time frame for cumulative effects is the present to five years in the future because that is the time frame of the Cannon Master Development Plan and the initial period, prior to its intended renewal, of the MOU for the maintenance of Bicknell's thrush habitat.

Alternative 1

There are no cumulative effects anticipated at Mittersill as a result of implementation of the Proposed Action. Existing trails above 2,500 feet would have little soil disturbance because the MOU precludes new trail construction and anticipated soil disturbance due to trail maintenance is expected to be minimal. Any new trail construction below 2,500 feet would be subject to the state's Best Management Practices. The state currently implements appropriate soil protection measures at the adjacent Cannon Ski Area; these measures, which conform with industry standards, would minimize soil disturbance and displacement on Mittersill.

At Sentinel, there would be no cumulative effects of the Proposed Action; projects that might be proposed within Sentinel subsequent to the proposed exchange would be analyzed independently and would require site specific analysis.

Alternative 2

There would be no cumulative effects of implementation of the No Action alternative.

3.10 Inventoried Roadless Areas

Mittersill

Affected Environment

The Proposed Action includes approximately three acres of the Kinsman Inventoried Roadless Area. As indicated above in Alternatives Considered by not Analyzed in Detail, the inventory and assessment of these areas was a Forest-wide tool used during development of the Forest Plan (see above).

The three-acre portion of the Kinsman inventoried roadless area is characterized by elevations near 3,000 feet with windswept, stunted spruce and fir trees along the rocky, ridge-top Taft Trail that connects the summits of Cannon and Mittersill. The approximately three acres of the Kinsman roadless area lie to the west of the ridge, parallel to the Taft Trail and include an area approximately 200 feet west and downslope of the ridge.

Indirect and Cumulative Effects

The spatial bounds of the effects analysis for the inventoried roadless area is the three acres considered for exchange. This area was selected because the expected effects are minimal, highly localized and would not extend to any other inventoried roadless area. The Proposed Action would result in no ground- or vegetation-disturbing activities and there will be no effects beyond the area considered for exchange. The temporal bounds for the cumulative effects analysis are the 5 years included in the Memorandum of Understanding for the management of Bicknell's Habitat because this MOU describes the state's intent for management of this area over the life of the MOU as well as the state's intent to renew the MOU indefinitely into the future. The state's MDP for Cannon also reflects the same future for management of the three acre area, but the MOU describes the activities that might occur more specifically. The MOU is the best tool available for consideration of possible future activities within this area.

Alternative 1

There are no known indirect effects of the Proposed Action on the Kinsman inventoried roadless area. Skiers and snowboarders currently hike the Taft Trail from the state boundary to the top of Mittersill. This use is expected to continue under the Proposed Action. This travel way (Taft Trail) lies just outside of the inventoried roadless area and this concentrated, non-motorized, linear use does not currently affect nor would be expected to affect the inventoried roadless area. The three acres included in the Proposed Action would remain in an un-roaded condition; no vegetation would be removed and no new trails would be constructed within the formerly inventoried area. Beyond the three acres proposed for exchange, Mittersill lies entirely out of sight and sound of the Kinsman Inventoried Roadless Area. Activities in and around Mittersill would be imperceptible to visitors in Kinsman.

This Proposed Action is in response to a request of the state to consider this exchange. This proposed exchange does not set a national precedent for exchange of lands within inventoried roadless areas; nor does it set a local or regional precedent. Implementation of either the Proposed Action or the No Action alternative does not constitute a commitment to take similar actions in any other White Mountain National Forest inventoried roadless area or in any other inventoried roadless area in the country.

Beyond the three acres included in the exchange, the Proposed Action would not preclude any future land use options for the remaining, much larger portion of the Inventoried Roadless Area, including the possibility of recommending some or all of the Kinsman Inventoried Roadless Area for potential future wilderness consideration.

Alternative 2

There would be no indirect, or cumulative effects of implementation of the No Action alternative with regard to the formerly Inventoried Roadless Area. The three acres included in the Proposed Action would remain in an un-roaded condition; no vegetation would be removed and no new trails would be constructed within the formerly inventoried area.

The No Action Alternative would not preclude any future land use options, including the possibility of recommending some or all of the Kinsman Inventoried Roadless Area for potential future wilderness consideration.

Sentinel

Sentinel is more than 20 miles southeast of Mittersill. Sentinel is located outside the WMNF proclamation boundary; it is neither adjacent to nor in close proximity to an inventoried roadless area. There would be no indirect or cumulative effects of implementation of either Alternative 1 or Alternative 2 on any inventoried roadless area.

3.11 Environmental Justice

Both parcels of land being considered for exchange are in Grafton County, New Hampshire; Mittersill lies within the Town of Franconia and Sentinel lies within Piermont.

Less than 3% of Grafton County is comprised of minority populations. Census statistics indicate that Franconia's population is 2.5 % non-white and Piermont is 1.6 % non-white. (Economic and Labor Market Information Bureau, NH Employment Security 2007). About 8.9 % of Franconia's population is below the poverty level, as is 4.9 % of Piermont's population, compared to the Grafton County average of 10.1% and a national average of 12.4 %. (US Census Bureau). No concerns were raised during scoping about these populations in relation to the proposed land exchange. Because of the imperceptible economic effects of either alternative, there is little potential for minority and low-income populations to be disproportionately affected directly, indirectly, or cumulatively by the Proposed Action or the No Action alternatives.

Chapter 4: Professional and Technical Assistance

The following individuals participated in development of the proposed action and subsequent analysis.

Interdisciplinary Team

Susan Mathison Environmental Coordinator, Team Leader
Leighlan Prout Forest Biologist
Chris Mattrick Forest Botanist
Ken Crevier Lands Program Manager

Forest Service personnel providing professional and technical assistance

Roger Boyer Assistant Ranger
Karl Roenke Forest Archeologist
Robert A. Colter Forest Soil Scientist
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Janeal Hedman USFS, R9 Grants and Agreements Coordinator
Peter Irvine USDA Forest Service AT Coordinator
Nancy Iwanicki Forest Land Surveyor
Ken Daw Regional Appraiser
Terry DeMuri Regional Review Appraiser
Karl Roenke Forest Archeologist
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Other agencies and individuals providing professional and technical assistance

Bill Carpenter NH Dept. of Resources and Economic Development
John DeVivo Mountain Manager, Cannon Mountain Ski Area
Pam Hunt NH Audubon Society
Carol Foss NH Audubon Society
John Kanter NH Fish and Game
Ron Duddy NH Survey/Mapper
David Falkenham NH Regional Forester
Pamela Underhill National Park Service, Appalachian National Scenic Trail
Selectboards Towns of Piermont and Franconia

Appendix A: Scoping Comments and Responses

The “scoping” process seeks information that will help refine the proposed action, identify significant issues, develop alternatives that meet the stated Purpose and Need, and otherwise address potential site-specific resource effects. Scoping is usually done early in the environmental analysis; for this project, formal scoping of the public began in January, 2008.

Each comment received during the scoping period was reviewed to identify issues and concerns related to this project. Comments and questions relevant to the site-specific analysis were considered in detail are listed in the following section along with a response by the Interdisciplinary Team and, if appropriate, where supporting information can be found.

A large portion of the letters communicated strong support for the project and encouraged prompt approval and implementation. These comments, while supportive of the proposal, did not provide opportunities for refinement of the project or its analysis. These general letters of support are noted as such; no response is needed or provided in this section. As with other relevant documentation, all scoping correspondence is filed and available for public review in the Mittersill – Sentinel Mountain Land Exchange Project File located at the Pemigewasset Ranger Station in Holderness, New Hampshire.

2-1 this (sic) isn't about skiing. Its about profiteering for locals. National taxpayers paid for this land- it should remain as it is originally. Stop making taxpayer owned land into profit centers for locals.

Congress has delegated authority to the Forest Service to manage acquired lands. One of the objectives of the Forest Service landownership adjustment program is to achieve the optimum landownership pattern to provide for the protection and management of resource uses to meet the needs of the nation now and in the future. This exchange complies with this objective and meets the factors for considering public interest as required by regulations.

3B-1 Exchange should maintain pedestrian public skiing access to the Meadowbrook and Coppermine Col ski trails from the Taft Trail.

Cannon Mtn Ski Area has no written policy regarding climbing access to trails during or outside of its season of lift operation. Future changes that the State/Cannon Mtn. may implement are conjecture and beyond the scope of this decision.

3D-1 I have received an email from George Bald in which he stated that DRED would have a new master plan for Cannon Mountain in May 2008. In other words, the public does not know what the State might do with any lands it receives.

The public is provided several opportunities for participation in the development and modification of the Cannon Mountain Master Development Plan (MDP). Modifications to the MDP are proposed and considered

through a State-defined public process. Changes to the plan include a public hearing and comment period as well as coordination through the Cannon Mtn. Advisory Commission. A hearing regarding a proposed amendment to the Cannon Mtn. MDP in relation to this proposed exchange was held in Franconia, NH on February 21, 2008; its comment period closed March 6, 2008. Modifications to the MDP were approved in early April, 2008.

3D-2 This implies that the old main Mittersill chairlift will not be rebuilt, at least above 2500'. This has fundamental impact on the fiscal viability of any development at Mittersill. It is entirely possible, and I would say likely that the expansion scenarios posited for Mittersill, will expand the State's fiscal deficit, and have no significant impact on the Franconia area economy

Under the proposed MOU, lift construction above 2,500 feet is allowed within the footprint of the 1989 trails (and lift corridors). The decision to construct a lift within these constraints is allowed within the proposed MOU. Other decisions regarding funding of lift construction, operational profitability, etc. on Mittersill and elsewhere within the Ski Area would be within the purview of the State of NH and are beyond the scope of this land exchange decision.

3D-3 oppose any transfer of land to the State of N.H. because both the State and WMNF refuse to address the mountain avens issue.

If the proposed land exchange was implemented, the population of mountain avens would continue to receive protection by the state via the NH Native Plant Protection Act RSA 217. This act, in section 217-A:7 and 217-A:9 provides for the protection of state listed species by state agencies. Sections 217-A:7 states "To the extent possible actions funded or carried out by state agencies shall not jeopardize the continued existence of any protected plant species". Section 217 – A:9 entitled prohibited acts states "It shall be a violation of this chapter...to...take, possess...any protected species from public highways, public property...without the valid state or federal permits. Although this Act does not absolutely prohibit the accidental or intentional destruction, it does protect species from wanton destruction and set forth a state administered permit process for any potential takings.

3D-4 I also oppose the proposed transfer because it would result in the loss of three acres from the Kinsman Inventoried Roadless Area.

Please see Chapter 1, Alternatives Considered But Not Analyzed in Detail

3D-5 ... ignores the issues inherent in a fair exchange. A "No" reply to the State would also "respond to the State's proposal for land exchange."

The No Action Alternative, fully considered in the Environmental Analysis, displays the effects of a "'No' reply to the State."

3D-6 The scoping letter claims that the proposal would Implement the management direction of the WMNF Plan.I strongly disagree. The Plan offers only an option.I strongly disagree. The Plan offers only an option for future alpine skiing use on Mittersill — a use which has never been interrupted.

The statement referenced is intended to describe the relationship of the proposed project to the Forest Plan. No one project can “implement the Forest Plan” in its entirety. Likewise, this project is one potential approach for achieving one or more of many goals for Forest Plan implementation.

3D-7 Nothing in the scoping letter supports the contention that “ More efficient land ownership patterns and more cost-effective administration on NFS and State-owned lands “ would result.

The scoping report is intended to invite public participation during project development to identify issues, concerns, and/or new information about the proposed project and the project area. The analysis of these topics is displayed in this subsequent document, the Environmental Assessment (EA). The commenter is correct, the scoping letter did not supply supporting information or analysis regarding the effect, if any, of the exchange on efficient land ownership patterns and ...administration.” Analysis of this topic will be appropriately displayed in the Environmental Analysis.

3D-8 the range of recreation opportunities would be narrowed (a bit more lift served skiing, but less climb to ski opportunities would result).

Cannon Mtn Ski Area has no written policy regarding climbing access to trails during or outside of its season of lift operation. At this time, there is no formal prohibition of the existing climb-to-ski opportunities at Mittersill. If the exchange is implemented, Future changes that the State/Cannon Mtn. may implement are conjecture and beyond the scope of this decision. If the No Action alternative is implemented, the foreseeable future would include revegetation of the Mittersill trails and the elimination of both downhill and climb to ski opportunities

3D-9 Given the WMNF record with the Appalachian Trail,I do not believe WMNF ownership of Sentinel Mountain State Forest would provide “... Consistent ownership and management of a portion of the Trail.” This is based in part on the WMNF record in permitting a totally unnecessary intrusion thru the Trail corridor in Etna, N.H.

“Consistent ownership and management” refers to a single title holder for adjacent segments of the AT corridor. If the exchange is implemented, the ownership of the Sentinel section of the AT would be consistent with the adjoining AT sections. Comments regarding a Special Use Permit issued on another segment of the trail are beyond the scope of this decision. Each Special Use Proposal and Application is evaluated site-specifically through standard screening criteria and in consideration of outstanding rights as well as other applicable laws, regulations, and policy.

3D-10 ... and the WMNF record of allowing invasives to grow in the Trail corridor, even at invasives to grow in the Trail corridor, even at roadside

The White Mountain National Forest has an active program to control non-native invasive species (NNIS) on the lands it manages including the Appalachian Trail Corridor. A thorough survey of the Forest and the surrounding private and state lands was conducted in partnership with the New England Wild Flower Society from 2001-2004. This survey highlighted areas of greatest concern on the Forest. The Appalachian Trail Corridor

is of concern relating to NNIS as it may serve as a dispersal corridor for NNIS to the uninvaded portions of the Forest. We are currently working to control Japanese knotweed at the AT crossing on Cape Moonshine Road directly adjacent to the Sentinel Mountain parcel. This infestation is in the AT Corridor. We are also aware of several infestations of glossy buckthorn in the Lyme, NH area and are evaluating control of these infestations in the future.

3D-11 The scoping letter's claim that a Memorandum of Understanding be "established" "... Subsequent to the exchange of land" is the exact reverse of the sequence owed to the public.

In fact, the Forest Service has long taken the position that zoning and regulation of uses on private land are within the responsibility of state and local governments. Forest Service Manual 5403.3 reads "Except as authorized by law, order, or regulation, Forest Service policies, practices, and procedures shall avoid regulating private property use." A principal objective of discretionary land exchanges is to reduce administrative costs and requirements, not increase them. The parties will enter into an exchange agreement, a legally binding contract, that will address the MOU prior to closing. The exchange agreement is used to specify contractual obligations on the exchange parties after closing. The exchange agreement is mandatory where there are contractual agreements, other than title warranties, that survive closing (FSH5409.13 36).

3D-12 The purpose of the January 2008 Pemi District scoping letter is obviously to avoid an EIS. The public is being asked to approve a pig in a poke. I shall not do so.

"Scoping includes refining the proposed action, determining the responsible official ..., identifying preliminary issues, and identifying interested and affected persons. The results of scoping are used to identify public involvement methods, refine issues, select an interdisciplinary team, establish analysis criteria, and explore possible alternatives and their probable environmental effects." (Forest Service Handbook 1909.15_10) Subsequently, environmental analysis will determine if there are potential significant environmental effects that may result from implementation of the proposed action. If there is a determination of significant effects, an environmental impact statement (EIS) may be prepared. If analysis determines that there are no significant effects, the project's analysis will be fully documented in an Environmental Assessment and a decision documented in a Decision Notice and "Finding of No Significant Impact."

3D-13 A transfer lift from the Cannon-Jackson saddle is not necessary or advisable.

The State has committed to comply with the terms of the MOU in order to protect the suitable Bicknell's thrush habitat above 2,500 feet at Mittersill. Therefore a decision to construct a transfer lift would be predicated on its compliance with the constraints of the proposed MOU. Management decisions regarding lift construction, operational profitability, etc. on Mittersill and elsewhere within the Ski Area would be within the purview of the State of NH and are beyond the scope of this land exchange decision. The State,

the Cannon Mtn. Advisory Commission, and mountain management staff would each participate in a decision regarding a transfer lift subsequent to and independent of the decision regarding this proposed land exchange.

3D-14 It is entirely possible that expansion at Mittersill will result only in growth in the Cannon Mountain winter season deficit, and degradation of what is now a challenging and enjoyable climb-to-ski experience .

As stated above, operational profitability at Cannon Ski Area is not germane to the decision regarding the proposed land exchange. Additionally, there is no formal policy at Cannon Mtn that would infer that climb-to-ski opportunities would be precluded at Mittersill.

5-1 While I assume that top priority in selecting the Sentinel Mtn land for the Forest Serviced to acquire would be the portion containing the Appalachian Trail, I think it should be explicit that that portion of land should be the first to be acquired when the actual acreage of the swap is determined.

An independent appraisal of both parcels is an important part of the land exchange process. The 100-acre Mittersill parcel is the smallest feasible and efficient parcel that meets the State's objectives of acquisition of the dormant ski trails; this approximately 100 acre parcel could not be practically reduced to equalize values between the two parcels. The Sentinel Mountain parcel will be reduced to equalize values between the two parcels. Indeed the instructions provided for the appraisal stipulate "During execution of the appraisal, the ½ mile AT corridor is the first priority for exchange. In pursuit of an equal value, additional acres would be exchanged north of the AT corridor and east of Cape Moonshine Road; additional acres, if needed, would be added from the smaller parcel west of Cape Moonshine Road, first south of Clark Lane Road, and finally the parcel north of Clark Lane Road." (Thomas G. Wagner, February 11, 2008)

6-1 I...support the redevelopment by the responsible State of New Hampshire stewarts for both its historical and recreational value. Let's extend the use of our forest resources beyond the exclusive use of the highly physical fit and the time wealthy! Let's make it appeal to skiing families to enjoy our great outdoors. This is a "Win/Win" proposal for the state and the Forest Service!

Comment noted.

13-1 Let no guidelines compromise the possible use of new or old trails for eventual motorized use

Under administration by the WMNF, the upper portion of the dormant Mittersill ski area is closed to ATV use (Forest Plan, page 2-18, 2-19). Likewise, Cannon Mountain Ski Area does not allow recreational ATV use of its trails. If the exchange is implemented, it is anticipated that Cannon Mountain management staff would continue the prohibition of ATV use on Mittersill as on Cannon. It is anticipated that Cannon Ski Area administrative ATV use would occur, but no recreational ATV use would be permitted. In essence, it is anticipated that there would be no discernible change to ATV opportunities for any of the alternatives considered.

14-1 General letter of dissatisfaction with Forest Service management. Non-project-specific.

27-1 During any construction to reestablish the ski trails in the former USFS Mittersill tract after the land swap I would like to see the construction of these trails monitored to make sure all construction adheres to the US Forest Services Best Management Practices. I feel this should be monitored by an independent engineer or a someone from the USFS. My primary concerns are erosion control and wildlife habitat. Primarily the habitat of the Bricknell's Thrush including the stunted spruce trees that makeup the area along the ridgeline between Cannon Mountain and the Mittersill Tract. It is quite obvious from the view from the interstate that the upper portions of the existing Mittersill trails have little soil on them and the ledge is exposed in several locations.

As part of the proposed exchange, a Memorandum of Understanding (MOU) between the Forest Service, State of New Hampshire, and Audubon Society of New Hampshire was developed to conserve the existing Bicknell's thrush habitat presently established at Mittersill. Conditions in the MOU would restrict trails on the upper slopes of Mittersill to those already existing. In other words, existing trails could be maintained, but no new trail construction can occur within the Forest Service parcel. Long-term monitoring of Bicknell's thrush and habitat is included as part of the MOU.

27-2 My second concern is the fragmentation of the Sentinel Mountain tract if the tract is divided and only a portion of the tract is given to the US Forest Service in the Land swap. I would like see the Forest service acquire all 235 (sic) acres of the Sentinel Mountain tract. This would allow a larger buffer for the Appalachian Trail corridor and allow only one government agency to be involved in the management of this tract. The section of the Appalachian trail between Hanover and Mount Mousilauke is a gem worth protecting to the highest standard. The trail travels in the most densely populated areas along the Appalachian Trail in New Hampshire with surprisingly little impact from its neighbors. In my eyes 235 acres of land primary used as a working forest is worth an equal or slightly less amount than an 100 acre addition to the so called "Flagship" of the state park system.

See Scoping Response Letter #5, Comment 1, and Letter #39, Comment 6, below.

36-1 I do not support the diminution of the Kinsman Inventoried Roadless Area.

See Chapter 1. Alternatives Considered But Not Analyzed in Detail

36-2 I believe the land (AT corridor) is already protected by easements

The current scope of the Appalachian Trail program is a direct result of the Congressional mandate in the National Trails System Act Amendments of 1978 which were designed to assure permanent protection and management for the Trail. Following the direction given in the Act, individual states, the Forest Service and the National Park Service have proceeded

to acquire interests in lands where the Trail is inadequately protected or poorly located so that a continuous Trail in protected lands could be established. The objectives are to assure that the Trail will be continuous, in a desirable location, and that it will be adequately buffered from incompatible developments, to the extent that objective is achievable (Appalachian Trail Comprehensive Plan - 1981, abridged version published 1987). The Act gives agencies authority to meet these objectives. Acquiring the property will resolve one of few remaining sections where the AT is located and not protected by either an easement or in Federal ownership. (See Recreation section of the EA for additional details.)

39-1 It would return the use of a developed ski facility, increasing the capacity and service of the ski industry in the state.

Comment noted.

39-2 The exchange would also increase the timber base, 2.1 lands, on the WMNF resulting in more renewable products harvested.

Beyond the AT corridor, the State currently manages Sentinel for a variety of forest products, including timber, (A history of harvest from Sentinel is available in the Project Record.) The Proposed Action would continue similar management practices; beyond the AT corridor, the WMNF would manage Sentinel for a variety of forest products, including timber. It has not been determined at what level harvest might occur on Sentinel if managed by the WMNF. Subsequent to the exchange, projects that may be proposed for Sentinel would be subject to project-specific analysis in compliance with the National Environmental Policy Act. These projects may or may not result in "more renewable products harvested."

39-3 The ownership consolidation promotes efficiencies for the ski area, Forest Service management of the Appalachian Trail and federal timber management.

Comment noted. This efficiency of management and administration is a key component of the proposed project's purpose and need.

39-4 Habitat for the Bicknell's Thrush would be improved. The managed ski trails would provide important feeding areas for developing juveniles while retaining nesting habitat in the surrounding, high elevation forest.

Comment noted.

39-5 The project includes 3 acres of an area that was studied for possible inclusion in the wilderness system. This portion was not selected by the 2005 Forest Plan Revision. It was only intended to be an analysis tool in the planning process. The plan has been approved and that tool is no longer needed. In addition, we see no reason why any of the proposed actions would have any effect on the character of an inventoried roadless area.

Comment noted. Indeed the commenter is correct; an alternative which proposed eliminating the three acres which had formerly been inventoried as part of the Kinsman Roadless Area was considered and eliminated from

detailed analysis largely for reasons to which the commenter refers (Chapter 1).

39-6 The State owned lands being traded have been under active timber management producing income and jobs for the local and state wide economy. It would be important to continue that level of productivity on these lands. The document indicates that the exchange could transfer only a portion of the State Forest land, leaving each agency with parts of the original Sentinel Forest. It seems unwise and inefficient to fractionalize the ownership that way.

The majority of Sentinel is currently managed as a working forest; the smaller portion which includes the AT corridor is managed for objectives as specified in the MOA between the State and the National Park Service, et.al. If the exchange is implemented, a similar management scenario will continue; the majority of the area will be managed as a working forest and the AT corridor will be managed in accordance with the stipulations of the MOA with the National Park Service. (See Chapter 1, Management Area Designation for Acquired Lands). In consideration of the concern that the exchange not “fractionalize” the forest, if an impractically small portion of Sentinel remains after the value-for-value appraisal is complete, in agreement with the State a cash equalization (not to exceed 25% of the federal lands value) may be utilized to bring the entire State Forest into US ownership.

41-1 Even though the Mittersill ski lifts stopped operating many years ago, skiing never stopped on this land. Hundreds and hundreds of back-country skiers still use the Mittersill trails. Therefore, the land exchange will not materially change the use of this land from decades of prior time.

Comment noted. Skiing has continued on the upper portion of Mittersill. If an exchange is implemented, trail maintenance, resource protection and patrol and rescue services would be provided by Cannon Mountain Ski Area personnel. This change would provide a net public benefit while, as noted, not significantly or adversely affecting the recreation experience now being utilized at Mittersill.

41-2 However, it does make basic sense to have this land under the jurisdiction and administration of the adjacent Cannon Mountain Ski Area (State of NH) to more readily provide safety and rescue services.

Comment noted. This efficiency of management and administration is a key component of the proposed project’s purpose and need.

41-3 The Taft Slalom Trail, a trail with great historical significance as one of the earliest ski trails in the nation, crosses the land subject to the exchange and continues down Mittersill on state land--the land exchange would reunite the two sections.

The proposed land exchange would result in the expansion of Cannon Ski Area to incorporate the historic Taft Trail. Cannon’s plans for the Taft Trail include signing, maintenance and patrol of this historic route. The maintenance and use of the Trail provide for the preservation and revitalization

of this historic activity, as well as highlighting the importance of downhill skiing in historic and cultural fabric of New Hampshire and its role in the development of the ski industry in the United States.

41-4 I have witnessed that the State of NH has been a good steward to the lands of Franconia Notch State Park and Cannon Mountain and I believe that they will continue to be good stewards of the land including these lands subject to the exchange.

Comment noted.

41-5 It also makes basic sense for the White Mountain National Forest to obtain the missing “puzzle piece” to unite the Appalachian Trail sections under WMNF care and administration. The Appalachian Trail is a national treasure and I believe all of it should be part of the National Forest.

Federal lands are held by the US government; their management is administratively transferred to an agency. In the case of Sentinel Mountain, the lands would be held by the USA, and managed by the WMNF as are the AT lands adjacent to Sentinel State Forest.

41-6 As a taxpayer I often get depressed watching government at all levels pursue silly, wasteful and counterproductive initiatives. It is refreshing to see a proposal that makes such good common sense and I hope it can be consummated.

Comment noted.

54-1 The current request has been dramatically changed from the original request. In order to appeal to all interest involved, the acreage has been reduced and the location of land offered in exchange has changed. These changes will benefit the public management of both these areas

The State has refined the exchange proposal over the course of several years as the State more closely examined its management objectives and viable options to offer specific lands for exchange. Indeed, the proposed action is a refined proposal that adequately yet minimally meets the State’s purpose for expanding Cannon to incorporate the existing trails at Mittersill.

Note: The balance of letters, emails, phone calls, and faxes submitted in response to scoping included general letters of support and requests for subsequent documentation.

Appendix B: Bicknell's MOU, Including Attachments A and B

FS Agreement No. 08-MU-11092200-005
DRED Agreement No. _____
NHFG Agreement No. _____
Audubon Agreement No. _____

MEMORANDUM OF UNDERSTANDING
Between the

USDA FOREST SERVICE
REGION 9
WHITE MOUNTAIN NATIONAL FOREST

And the
STATE OF NEW HAMPSHIRE
DEPARTMENT OF RESOURCES AND ECONOMIC DEVELOPMENT

And the
STATE OF NEW HAMPSHIRE
FISH AND GAME DEPARTMENT

And the
AUDUBON SOCIETY OF NEW HAMPSHIRE

For Management of
TRACTS 2a-I/569b-I/29d-I (formerly US lands administered by the White Mountain National Forest)
Known as "MITTERSILL SKI AREA" or Tract 2012

The **MEMORANDUM OF UNDERSTANDING** (the MOU) is hereby entered into by and between the USDA Forest Service, White Mountain National Forest, hereinafter referred to as the "Forest Service", the State of New Hampshire, Department of Resources and Economic Development, hereinafter referred to as "DRED", the State of New Hampshire Fish and Game Department, hereinafter referred to as "NHFG", and the Audubon Society of New Hampshire, hereinafter referred to as "Audubon". Collectively, the Forest Service, DRED, NHFG, and Audubon are hereinafter referred to as "the Parties".

A. **PURPOSE:** The purpose of the MOU is to define the cooperative relationship between the Parties. The MOU establishes a framework upon which the Parties will cooperate in protection of habitat for the Bicknell's thrush (*Catharus bicknellii*) above 2,500 feet elevation on the parcel of land known as "Mittersill" or referred to as "Tract 2012". At the time of the execution of the MOU, the WMNF will exchange this parcel with the State of New Hampshire for all or a portion of the Sentinel Mountain State Forest. The MOU is intended to document the management requirements and commitments to the long term protection of the identified habitat as indicated on the attached map (see Map 1).

The MOU is intended to extend into perpetuity; periodic review and 5 year renewal by the Parties will help document the Parties' continuing commitment to habitat protection for the Bicknell's thrush. The

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Bicknell's thrush is identified as a "Species of Concern" in the WMNF Forest Plan. Bicknell's thrush is a Neotropical migratory bird that breeds during the summer in the northeastern United States and Canada. The White Mountains hold almost half of the available breeding habitat for this species, which is predominantly high elevation (>2500 ft) spruce and fir. Although widespread on the White Mountain National Forest, monitoring data over the past 15 years indicates the Bicknell's thrush population is steadily declining for unknown reasons.

The cooperation documented in the MOU serves the interest of the Parties.

B. STATEMENT OF MUTUAL BENEFIT AND INTERESTS: The State of New Hampshire and the Forest Service are in the process of exchanging approximately 100 acres of land administered by the White Mountain National Forest which lie adjacent to State-owned Cannon Mountain Ski Area. The purpose of the exchange is to incorporate the now-dormant network of existing ski trails, known as "Mittersill" into the Cannon Ski Area. Inherent in the exchange and in concert with the management direction provided in the White Mountain National Forest Plan, the Forest and the State are committed to the maintenance of the existing Bicknell's thrush habitat above 2,500 feet within Mittersill.

The purpose of the MOU is to ensure that recreational use of Mittersill does not reduce the existing Bicknell's thrush habitat within Mittersill; the MOU is in concert with DRED's Division of Forest and Parks mission:

...to protect and preserve recreation, historic, scenic and natural areas of the state, to continually provide such additional park areas and facilities, to make these accessible to the public for recreational, educational, scientific and other uses consistent with their protection and preservation, and to encourage and support tourism and related economic activities within the state.

The MOU is supported by and implements NHFG's mission:

As the guardian of the state's fish, wildlife and marine resources, the New Hampshire Fish and Game Department works in partnership with the public to:

- Conserve, manage and protect these resources and their habitats;
- Inform and educate the public about these resources; and
- Provide the public with opportunities to use and appreciate these resources.

The MOU relies on the support and oversight of Audubon; this partnership reinforces the Forest's and State's public commitment to the protection of the described habitat, and, concurrently provides an opportunity to implement the mission of Audubon to:

...protect New Hampshire's natural environment for wildlife and for people.

The Forest Service is the agency responsible for the sustainable management of the White Mountain National Forest. The Forest Service initiates and develops cooperative relationships and effective partnerships with adjacent landowners. By participating in and supporting the MOU, the Forest assures that the standards of management prescribed in its Forest Plan for this area are implemented

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via this four-party MOU while at the same time helping to meet the needs of the public for winter recreation opportunities. The MOU assists the accomplishment of the agency's mission to:

... sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations.

The Parties have the common objective to utilize and manage natural resources in accordance with their capabilities in a sustainable fashion for the public good. Each party is independent, has its respective responsibilities, and yet recognizes the need to coordinate as a federal, state and nongovernmental partnership for the assured, successful protection of the designated Bicknell's thrush habitat within Mittersill.

In consideration of the above premises, the Parties agree as follows:

C. DRED SHALL:

1. Invite the Parties to provide input to the long-range operating plans and annual work plans for Mittersill and to attend regularly scheduled and special public meetings regarding the management and operation above 2,500-ft on Mittersill.
2. Meet with local representatives of the Parties no less than biennially, to coincide with the reporting of monitoring results, to review opportunities and issues of mutual concern related to Bicknell's thrush habitat on Mittersill.
3. Inform the Parties of any known activity contemplated by any State or Federal agency that might affect the described lands.
4. Inform the Parties of any known activity contemplated by the town or other agencies that might affect the implementation of the MOU.
5. Cooperate in educational work by others, if any, with winter and summer users in matters of conservation and land use and the Bicknell's thrush.
6. Ensure that the MOU is reviewed and re-authorized by the signing officials or their successors no less than once every five years.
7. Review the MOU within 60 days of a personnel change of the Cannon Ski Area manager and/or the DRED Commissioner.
8. Ensure that trail maintenance or clearing of vegetation above 2,500 feet elevation does not extend beyond the existing trail footprint, as indicated in the attached map, in order to maintain the extent of Bicknell's thrush habitat currently available.
9. Based on the known breeding and nesting timeframe of the Bicknell's thrush, complete all trail maintenance above 2,500 feet within Mittersill before May 15 or after August 1 in order to avoid disturbance of breeding and nesting activities.
10. Prohibit mountain biking or large events above 2,500 feet within the Mittersill between May 15 and August 1.
11. Provide compensation to Audubon to monitor the abundance and distribution of breeding Bicknell's thrushes and condition of its habitat above 2,500 feet elevation on Mittersill. Compensation shall be determined by actual costs required to implement, document, and report the monitoring protocol as specified in Attachments A and B, which are incorporated herein.

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D. AUDUBON SHALL:

1. Meet with the Parties no less than every 5 years to review opportunities and issues of mutual concern related to the MOU.
2. Perform monitoring for which they are compensated pursuant to a separate agreement between Audubon and DRED (see Attachment B).
3. Perform monitoring according to the protocol specified by NHFG.
4. Provide annual monitoring reports, or other deliverables, to DRED and copies to USFS and NHFG. Such documents shall be provided to DRED, with copies to USFS and NHFG at least five (5) days prior to public release of such documents.

E. NHFG SHALL:

1. Approve the agreed upon monitoring protocol including specific requirements for frequency, location and procedures. (See Monitoring Protocol, Attachments A and B)
2. Shall assure that monitoring protocol will include data collection appropriate to population abundance and distribution as well as habitat extent.
3. Review, sign and authorize each monitoring report prior to release to the public.
4. Facilitate any educational activities conducted above 2,500 feet in elevation on Mittersill.

F. FOREST SERVICE SHALL:

1. Meet with the Parties no less than biennially to review opportunities and issues of mutual concern related to the Bicknell's thrush on Mittersill.
2. Provide technical assistance and natural resource management information to DRED and NHFG to assist in preparing its long-term plan, annual program of work and in project planning and implementation above 2,500 feet on Mittersill.
3. Make available to the Parties information, data, monitoring, or the results of other studies, research, etc. relevant to the MOU.

G. THE PARTIES SHALL:

1. Work collaboratively to define the monitoring protocol including intensity and frequency of monitoring; in no event shall the frequency of monitoring be less than biennially.
2. Agree upon the monitoring protocol and advise DRED on the actual-cost budget.
3. Make each monitoring report available to the public.
4. Provide input to the Mittersill long-range operating plans and annual work plans and attend regularly scheduled and special public meetings regarding the management and operation above 2,500-ft on Mittersill.
5. Enter into subsequent agreements as needed to accomplish specific projects or to transfer funds, materials and expertise as needed between the parties for mutual support and enhancement of the Bicknell's thrush and/or its habitat.

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H. IT IS MUTUALLY AGREED AND UNDERSTOOD BY THE PARTIES THAT:

1. FREEDOM OF INFORMATION ACT (FOIA) & RSA chapter 91-A. Any information furnished to the Forest Service, or DRED and/or NHFG under this instrument is subject to the Freedom of Information Act (5 U.S.C. 552) and/or RSA chapter 91-A.
2. PARTICIPATION IN SIMILAR ACTIVITIES. This instrument in no way restricts the Forest Service or the Parties from participating in similar activities with other public or private agencies, organizations, and individuals.
3. COMMENCEMENT/EXPIRATION/TERMINATION. The MOU takes effect upon the signature of the Parties. It is intended to remain in effect in perpetuity, though it shall be reviewed and re-authorized by the parties no less than once every five years from the date of execution. The five-year reviews will provide the opportunity for the Parties to reaffirm their respective commitment to the long term objectives of Bicknell’s thrush habitat protection. The MOU may be extended or amended upon written request of the Parties and the subsequent written concurrence of all others.
4. RESPONSIBILITIES OF PARTIES. The Forest Service will handle its own activities and utilize its own resources, including the expenditure of its own funds, in pursuing these objectives. Each party will seek to carry out its separate activities in a coordinated and mutually beneficial manner.
5. PRINCIPAL CONTACT. The principal contacts for the MOU are:

Leighlan Prout Susan Mathison	Allison McLean John DeVivo Bill Carpenter	John Kanter	Carol Foss Pam Hunt
White Mountain National Forest	NH Dept. of Resources and Economic Development	NH Fish and Game Dept.	NH Audubon
719 Main Street	172 Pembroke Road	11 Hazen Drive	3 Silk Farm Road
Laconia, NH 03246	Box 1876, Concord NH 03302-1856	Concord, NH 03301	Concord, NH 03301
phone - (603) 528-8774	phone - (603) 271-2411	phone - (603) 271- 3211	Phone - (603) 224- 9909
fax - (603) 528-8783	fax - (603) 271-2629		fax - (603) 226-0902
lprout@fs.fed.us smathison@fs.fed.us	amclean@dred.state.nh.us jdevivo@dred.state.nh.us bcarpenter@dred.state.nh.us	jkantor@wildlife.state.nh.us	asnh@nhaudubon.org

The principal contacts may be amended from time to time, as needed, with written notice to the other parties.

6. NON-FUND OBLIGATING DOCUMENT: Nothing in the MOU shall obligate the Forest Service or Audubon to obligate or transfer any funds. Specific work projects or activities that involve the

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transfer of funds, services, or property among the Parties of the MOU will require execution of separate agreements and be contingent upon the availability of appropriated funds. Such activities must be independently authorized by appropriate statutory authority. The MOU does not provide such authority. Negotiation, execution, and administration of each such agreement must comply with all applicable statutes and regulations.

7. ESTABLISHMENT OF RESPONSIBILITY. The MOU is not intended to, and does not create, any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity, by a party against the United States, its agencies, its officers, or any person.

8. ALTERNATIVE DISPUTE RESOLUTION. Disputes shall be handled as follows: The Parties desire that issues arising from time to time concerning uses or activities in light of the provisions of the MOU will first be addressed through candid and open communication between the Parties rather than unnecessarily formal or adversarial action. Therefore, the Parties agree that if any party questions whether any use or activity complies with the provisions of the MOU, whenever reasonably possible, the concerned party shall notify the other party or Parties of the perceived or potential problem, and the Parties shall attempt to reach a resolution by informal dialogue.

a. Non-Binding Mediation. Each Party shall have the right, but not the obligation, to have any dispute arising under the MOU submitted to mediation in accordance with this section. In this section, any reference to “mediation” shall mean non-binding mediation. The Parties agree that mediation shall not operate to stay any proceedings that any party may institute in the COURT. If any party requests that mediation of a particular matter or matters be undertaken and if that matter is not at the time of the request the subject of an action in the COURT or if it does not become the subject of an action in the COURT while the mediation is pending, then the Parties shall mediate the matter. The agreement for mediation shall be in writing, signed by both Parties, and include a statement of the matter or matters that are the subject of the mediation.

b. Selecting Mediators. If mediation is requested in a manner consistent with this Section, the disputing Parties shall choose a mediator within 15 days of the date of the written agreement for mediation. The mediator shall be notified, in writing that he/she has been chosen as a mediator. The fees and costs for the mediator shall be agreed to, in writing, by the disputing Parties and the mediator. Each disputing party shall pay an equivalent share of the total fees and costs of the mediator.

c. Scheduling Mediation. When the mediator has been selected, the mediator shall, with the agreement of the Parties, schedule a date or dates for the mediation hearing as soon as practicable. The mediation hearing date may only be postponed for good cause accepted by each of the disputing Parties.

d. Written Decision. A written decision shall be rendered and signed by the mediator. The decision shall be issued within 45 days after the submission of the dispute and shall be considered the final decision of the mediators.

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NIIFG Agreement No. _____
Audubon Agreement No. _____

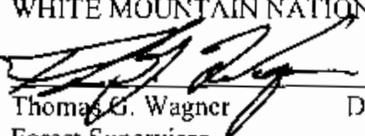
9. AUTHORIZED REPRESENTATIVES. By signature below, the Party certifies that the individuals listed in this document as representatives of the Parties are authorized to act in their respective area for matters related to the MOU.

THE PARTIES HERETO have executed this instrument:

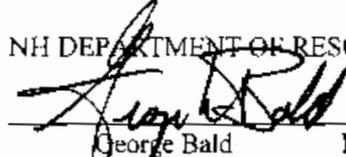
AUDUBON SOCIETY OF NH


Richard A. Minard, Jr. Date
President/CEO 5-18-08

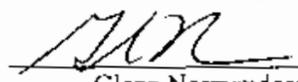
USDA FOREST SERVICE,
WHITE MOUNTAIN NATIONAL FOREST


Thomas G. Wagner Date
Forest Supervisor 8/21/08

NH DEPARTMENT OF RESOURCES AND ECONOMIC DEVELOPMENT


George Bald Date
Commissioner

NH FISH AND GAME DEPARTMENT


Glenn Normandeau Date
Director 7/20/08

Approved as to form and substance:

STATE OF NEW HAMPSHIRE
OFFICE OF THE ATTORNEY GENERAL


Anthony I. Blenkinsop, Esquire Date
Senior Assistant Attorney General 8/22/08

The authority and format of this instrument has been reviewed and approved for signature.

/s/ Janeal A. Hedman 06/04/2008
Janeal A. Hedman Date:
Grants and Agreements Specialist
USDA Forest Service

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Attachment A: Bicknell's Thrush Monitoring Protocol for the Mittersill Parcel

Pamela Hunt, Ph.D.
New Hampshire Audubon
30 November 2007

Under a Memorandum of Understanding among the USDA Forest Service, New Hampshire Department of Resources and Economic Development (DRED), New Hampshire Fish and Game Department, and Audubon Society of New Hampshire (ASNH), populations of Bicknell's Thrush (*Catharus bicknellii*) are to be monitored at the Mittersill parcel (see Figure 1) after its transfer from the White Mountain National Forest to DRED. The purpose of this monitoring is to ensure that thrush populations are not adversely impacted by increased recreational activity or habitat management at Mittersill, and that there is no net loss of thrush habitat as a result of recreation and associated activity.

The proposed monitoring protocol follows that being developed by the Mountain Bird Working Group, part of the Northeast Coordinated Bird Monitoring Partnership. Development of this protocol is being led by biologists at the Vermont Center for Ecostudies and is not complete as of this writing. A monitoring protocol will be finalized in time for a pilot season across the Northeast in 2008, at which point it could also be piloted at Mittersill. Because the regional protocol is not finalized, there remain uncertainties in the summary below. These are clearly stated, and the assumption is that they will be resolved in time for implementation by June 2008.

The basic mountain bird protocol is a series of five point counts spaced along trails in suitable high-elevation habitat. This transect is surveyed once during the breeding season. Particulars of the methodology are as follows (items still to be resolved are indicated with an asterisk):

- 1) Time of year: Between 1 and 21 June
- 2) Time of day: Start half an hour before sunrise and end by 0700
- 3) Number of points: Five
- 4) Distance between points*: Current protocol calls for 250 meters (straight line distance vs. distance along trail), but there is a possibility of 500 meters.
- 5) Length of count*: 15-20 minutes
- 6) Count divided into 5-minute segments (N = 3 or 4)
- 7) Data recorded:
 - a. Basic weather data (wind, cloud cover, etc.)
 - b. Presence/absence of 10 focal species (Table 1) in each 5-minute interval
 - c. For Bicknell's Thrush (and possibly Blackpoll Warbler*), observers will also record the time of first detection for each individual bird at a point. This allows for estimates of detectability and population size. May or may not attempt to distinguish between birds inside and outside a 50 meter radius, pending further discussion*.
 - d. Still in development are methods of measuring basic habitat characteristics (may not occur annually), cone crop abundance, and density/occupancy of red squirrels (*Tamiasciurus hudsonicus*).
- 8) Playback*: The use of Bicknell's Thrush playback as part of this protocol is uncertain, although it is included in the existing Mountain Birdwatch protocol.

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Table 1. Focal species identified by Mountain Bird Working Group (not all will occur at all survey sites)

Species	Scientific Name
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>
Black-capped Chickadee	<i>Poecile atricapillus</i>
Boreal Chickadee	<i>Poecile hudsonica</i>
Winter Wren	<i>Troglodytes troglodytes</i>
Bicknell's Thrush	<i>Catharus bicknellii</i>
Swainson's Thrush	<i>Catharus ustulatus</i>
Hermit Thrush	<i>Catharus guttatus</i>
Blackpoll Warbler	<i>Dendroica striata</i>
Fox Sparrow	<i>Passerella iliaca</i>
White-throated Sparrow	<i>Zonotrichia albicollis</i>

Given that one of the goals of monitoring at Mittersill is to ensure no net loss of Bicknell's Thrush habitat, the protocol above will also include a simple vegetation component. The main potential habitat alteration at the parcel is the expansion of ski trails beyond the existing footprint, and such expansion can be detected by looking for recently cut stumps while an observer travels between points. Specifically, points 1, 2, and 3 are located along the existing ski trail, as is the extra point 6 to the northeast. Points 4 and 5 are located along the narrower connector trail between Cannon Mountain and Mittersill. At some point during the site visit the observer will look for and count recently cut trees and note any new trails that were not present on previous visits. To facilitate the latter, observers will be provided with a map and aerial photograph of the parcel showing locations of trails and survey points. Any habitat alteration detected during this survey will immediately be reported to DRED.

Because surveys need to start before sunrise, it is recommended that the field technician arrive on site the afternoon before and camp. The vegetation survey mentioned above could then be conducted the evening before the survey. Access to and from the site would be provided via the Cannon Mountain aerial tram.

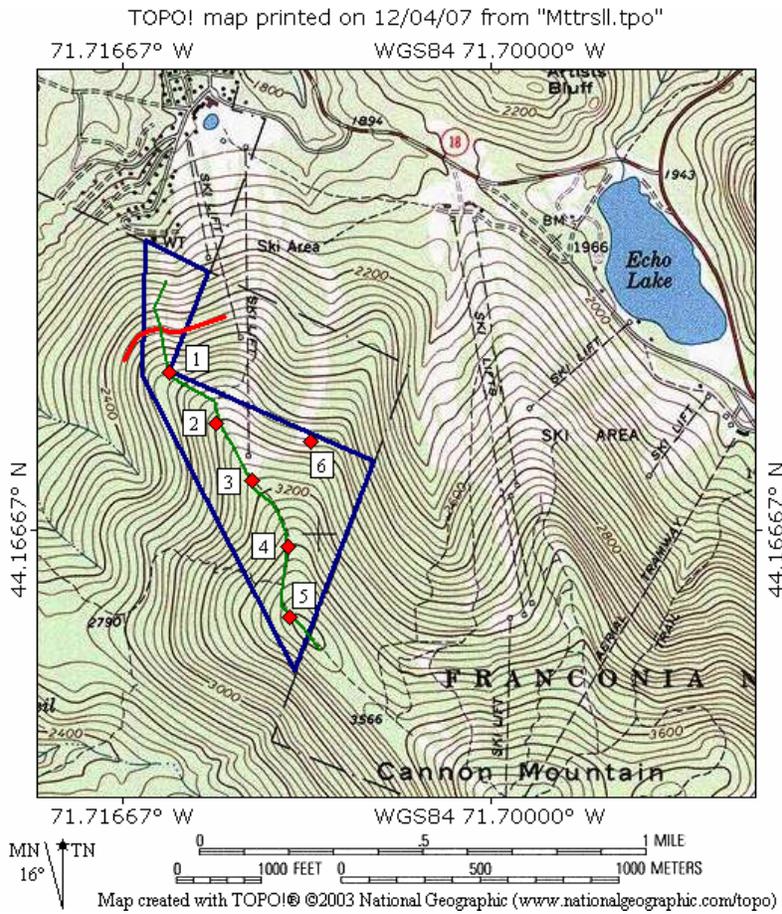
Cost: Based on current ASNH rates, plus round trip travel to the base of Cannon Mountain, monitoring and associated ASNH costs would not cost more than \$2000 per year. This cost is based on the following:

- 1) Two days field work (afternoon of one day, morning of next, plus travel)
- 2) One day prep and wrap-up
- 3) Two person-days of meetings (may not occur each year): meetings involve both field person and that person's supervisor
- 4) Round trip mileage of 150 miles at ~\$0.50 per mile

Mittersill-Sentinel Mountain Land Exchange Environmental Assessment

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NHFG Agreement No	
Audubon Agreement No.	

Figure 1. Location of proposed Bicknell's Thrush survey points (red diamonds) on the Mittersill parcel (blue outline), assuming 250 meters between points. The green line shows the primary transect through the study area along a combination hiking and ski trail. The section between points 1 and 5, plus the ski trail between points 3 and 6, would be surveyed for evidence of habitat alteration. The red line indicates the 2500' contour, below which Bicknell's Thrush is unlikely to occur.



Coordinates of survey points (coordinates in NAD83):

Point	Latitude (N)	Longitude (W)
1	44.17185	71.71451
2	44.17014	71.71241
3	44.16829	71.71078
4	44.16609	71.70915
5	44.16389	71.70908

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Audubon Agreement No. _____

6	44.16956	71.70814
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DRED Agreement No. _____
NHFG Agreement No. _____
Audubon Agreement No. _____

Attachment B:

Agreement between State of New Hampshire, Department of Resources and Economic Development and Audubon Society of New Hampshire for Monitoring Services on the Mittersill Parcel

A Memorandum of Understanding among the USDA Forest Service (Forest Service), New Hampshire Department of Resources and Economic Development (DRED), New Hampshire Fish and Game Department (NHFG), and Audubon Society of New Hampshire (Audubon), established a framework upon which the Parties will cooperate in the protection of habitat for the Bicknell's thrush (*Catharus bicknellii*) above 2,500 feet elevation on the parcel of land known as "Mittersill" or referred to as "Tract 2012". The purpose of the MOU is to ensure that recreational use of Mittersill does not reduce the existing Bicknell's thrush habitat within Mittersill at the elevation so identified.

The Bicknell's thrush is identified as a "Species of Concern" in the WMNF Forest Plan. Populations of Bicknell's thrush are to be monitored above 2,500 feet elevation on the Mittersill parcel (see Map 1, Attachment A) after its transfer from the White Mountain National Forest to DRED. The MOU directs DRED to support the monitoring effort through this separate service agreement with Audubon and to provide financial assistance for such services.

Audubon shall provide DRED with monitoring services in accordance to the monitoring protocol established under Attachment A of the MOU:

- A. Audubon shall provide DRED with written 30-day advance notice when the field technician is scheduled to conduct onsite monitoring.
- B. Audubon shall be allowed to camp one night on the Mittersill tract, subject to DRED camping rules including no campfires.
- C. A series of five point counts spaced along trails at 2,500 feet, high-elevation habitat on the Mittersill tract shall be surveyed. The monitoring methodology is as follows:
 - 9) Survey frequency: Once during the breeding season
 - 10) Time of year: Between 1 and 21 June
 - 11) Time of day: Start half an hour before sunrise and end by 0700
 - 12) Number of points: Five
 - 13) Distance between points: Current protocol calls for 250 meters (straight line distance vs. distance along trail), with a possibility of 500 meters.
 - 14) Length of count: 15-20 minutes
 - 15) Count divided into 5-minute segments (N = 3 or 4)
 - 16) Data recorded:
 - a. Basic weather data (wind, cloud cover, etc.).
 - b. Presence/absence of 10 focal species (Table 1, Attachment A) in each 5-minute interval.
 - c. For Bicknell's Thrush, the field technician will also record the time of first detection for each individual bird at a point. This allows for estimates of detectability

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and population size. The field technician may or may not attempt to distinguish between birds inside and outside a 50 meter radius.

d. Methods of measuring basic habitat characteristics (may not occur annually), cone crop abundance, and density/occupancy of red squirrels (*Tamiasciurus hudsonicus*) may also be conducted.

17) Playback: The use of Bicknell's Thrush playback as part of this protocol is uncertain, although it may be included.

18) Habitat extent: As the field technician travels between points, he/she will look for and count, if applicable, recently cut trees and note any new trails that were not present on previous visits. The technician may use maps and aerial photographs to assist with this observation. Any habitat alteration detected during this survey shall be reported to DRED immediately.

D. Audubon shall provide DRED with a copy of the annual monitoring report and data prior to any release to the public, but no later than August 31st of each year.

E. Audubon shall provide DRED with an invoice and all supporting documents, including timesheets and expenses, by August 31st of each year.

F. Audubon shall procure at its expense all necessary licenses and permits required in connection with the work described herein.

G. Audubon warrants that all personnel engaged in the services provided shall be qualified to perform such services, and shall be properly licensed and otherwise authorized to do so under all applicable laws. In the performance of this Agreement, Audubon is in all respects an independent contractor and is neither an agent nor employee of the State. Neither Audubon nor any of its officers, employees, agents, or members shall have authority to bind the State, or receive any benefits, workers' compensation or emoluments provided by the State to its employees.

H. It is agreed that during the term of this agreement, Audubon at its sole cost and expense and for mutual benefit of Audubon and the State shall carry and maintain comprehensive general liability insurance against all claims of bodily injury or death in amounts of not less than One Million Dollars (\$1,000,000) per claim and Two Million Dollars (\$2,000,000) per incident; and of not less than \$100,000 for property damage. Additionally, Audubon shall carry Workers' Compensation insurance as required by the New Hampshire Department of Labor. Each policy shall contain a clause prohibiting cancellation or modification of the policy earlier than ten (10) days after written notice thereof has been received by the State. Each policy shall also extend to the State of New Hampshire as additionally insured.

DRED shall reimburse Audubon for its monitoring services. Amount shall be based upon actual costs, including round trip travel from Concord to the base of Cannon Mountain, monitoring and other directly associated costs, not to exceed \$2000 per year.

A. This cost shall be based on the following:

- 5) Two days field work (afternoon of day one, morning of day two, including travel).
- 6) One day for preparation and wrap-up.
- 7) Two person-days of meetings (may not occur each year). Meetings shall involve the field technician and his/her supervisor.
- 8) Round trip mileage of 150 miles at \$0.50 per mile.

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B. DRED shall provide access to and from the survey site via the Cannon Mountain aerial tram, at no additional cost.

C. DRED shall allow the Audubon field technician to camp one night on the Mittersill tract, subject to DRED camping rules including no campfires.

General Provisions:

A. Audubon shall comply with all reasonable requests made by DRED. The decision of the Commissioner relative to the proper performance of the conditions of this Agreement shall be final and conclusive as to each matter not covered in the Agreement and questions that may arise in connection with the privileges granted, and also as to each matter which is not clearly covered herein.

B. Audubon shall defend, indemnify, and hold harmless the State, and its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based or resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of Audubon or its subcontractors, agents or assignees. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant shall survive the termination of this Agreement.

C. This Agreement shall be subject to cancellation by Audubon, regardless of grounds therefore, by giving DRED sixty (60) days written notice of cancellation. This Agreement shall be subject to cancellation by DRED, in the event of the failure of Audubon to perform, keep and observe any of the conditions of the Agreement and the failure of Audubon to correct the default or breach within a time specified by the Commissioner, by giving Audubon thirty (30) days written notice of cancellation.

D. No failure by DRED to enforce any provisions hereof after any event of default on the part of Audubon shall be deemed a waiver of its rights with regard to that event, or any subsequent event. No express failure of any event of default shall be deemed a waiver of the right of DRED to enforce each and all of the provisions hereof upon any further or other default on the part of Audubon.

E. This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire Agreement and understanding between the parties, and supersedes all prior Agreements and understandings relating hereto. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provision hereof.

F. This Agreement shall be construed in accordance with the laws of the State of New Hampshire.

G. This Agreement shall not be assigned, sublet nor used for any commercial purposes by Audubon without the prior written consent of DRED.

H. This agreement may be amended only by an instrument in writing signed by both parties hereto.

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IN WITNESS WHEREOF, the parties hereto have set their hands the date herein named.

AUDUBON SOCIETY OF NEW HAMPSHIRE

Terrill [Signature] 8/18/08
Witness Date

[Signature] 8-18-08
NAME, TITLE Duly Authorized Richard A. Minard, Jr. President + CEO Date 8-18-08

STATE OF NEW HAMPSHIRE
DEPARTMENT OF RESOURCES AND ECONOMIC DEVELOPMENT

Allison A. McLean 7/28/08
Allison A. McLean, Director Date
Division of Parks and Recreation

Concur: [Signature] 7/28/08
George M. Bald, Commissioner Date
Dept Resources and Economic Development

Approved as to Form and Substance,

[Signature] 8/22/08
Attorney General's Office Date
NH Department of Justice

Governor and Executive Council Approved: Date 08/13/08 Item # 66

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