



United States
Department of
Agriculture

Forest
Service

White Mountain
National Forest

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File Code: 1950

Date: April 25, 2011

Dear Planning Participant:

Please find enclosed the National Ecological Observatory Network (NEON) Project Decision Memo.

This decision is to issue a Special Use Permit to NEON to conduct long term research via data collection on the Bartlett Experimental Forest. The permit will allow NEON to construct a meteorological tower powered by buried electrical conduit, and install an instrument hut, boardwalks, and a short access road.

This document is also available on our website at
http://www.fs.fed.us/nepa/nepa_projects.php?forest=110922

The decision document will be mailed to those who request a copy of this decision, and to those who commented during scoping. To obtain more information about this project, please contact Rodney Wilson, Saco Ranger District Recreation Planner, at (603) 447-5448 x120.

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

Sincerely,

THOMAS G. WAGNER
Forest Supervisor



White Mountain National Forest



United States
Department
of
Agriculture

Forest
Service

Eastern
Region



Neon Project

Town of Bartlett
Carroll County, NH

Decision Memo

Prepared by the
Saco Ranger District



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**This document is available in large print.
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1 Summary

After careful consideration of public input, the recommendations of appropriate resource specialists, and the requirements of applicable laws and regulations, I have decided to issue a Special Use Permit to the National Ecological Observatory Network (NEON) to conduct long term research (data collection) on the Bartlett Experimental Forest. This research includes the construction of a tower, instrument hut, boardwalks and a short access road.

2 Purpose and Need

NEON is a continental-scale observatory network for discovering and understanding the impacts of climate change and land use. NEON is funded by the National Science Foundation with the goal of enabling understanding and forecasting of climate change, land use change, and invasive species on continental ecology by providing infrastructure to support research in these areas. Management area direction for the Bartlett Experimental Forest supports these goals.

NEON submitted a proposal for a special use permit to use an approximately five acre site in the Bartlett Experimental Forest as one of its data collection sites. The purpose of this project is to respond to NEON's permit proposal.

The requested permit is to construct and maintain an ecological observation tower and associated improvements including a short vehicular access road off the Lower Haul Road and a source of power needed to run the instrument hut. The study at this site would span a period of five to ten years. The improvements, detailed below and excepting the buried conduit, are the responsibility of NEON to install, insure, maintain and may be removed by NEON whenever the permit is closed. Equipment may be retained by the Forest at the end of the permit period if both parties agree. New Hampshire Electric Co-op will provide and maintain electricity to the tower site via a separate special use permit. A decision will be made at the end of the NEON permit period as to whether the advantage to the Forest entails the removal or retention of the buried electrical line.

NEON proposes to use a distributed sensor network, coordinated airborne observations and an integrated communications, command, and control system to collect ecological data across the continental United States, Alaska, Hawaii and Puerto Rico. NEON has partitioned the U.S. into 20 eco-climatic domains, each of which represents different regions of vegetation, landforms, climate, and ecosystem performance. In those domains, NEON will collect site-based data about climate and atmosphere, soils, streams and ponds, and a variety of organisms. The Bartlett site is in Domain 1 and is a re-locatable site, meaning it is expected to operate for five to ten years before being moved to another site in Domain 1.

While NEON has prepared a nationwide environmental assessment for the study sites, the permit application merits consideration here. Layout of the project area and site specific considerations have been coordinated with the Bartlett Experimental Forest, and will be implemented in accordance with the

White Mountain National Forest standards and guidelines.

3 Decision to Be Implemented

My decision is to issue a 10 year permit for the installation and operation of the study site by NEON at the Bartlett Experimental Forest.

Establishing this re-locatable site would require the installation of a tower and instrument hut on a cement pad, an infrastructure of board-walks, and $\frac{3}{4}$ mile of buried electrical conduit. The initial estimates involve the collection of data for a five to ten year period following installation of the scientific equipment. The entire project area size is less than 5 acres.

The tower and instrument hut would be located near an existing tower used for a separate set of ongoing climatological studies by the Northern Research Station based out of Durham, New Hampshire. From a distance, the only noticeable element of the NEON facility would be the meteorological tower and its mounted sensors that measure a suite of atmospheric variables. Another set of biological, physical, and chemical measurements would be collected within approximately 750 feet of the tower from along the boardwalks. The boardwalks would provide elevated access to 30 to 50 biological sampling plots, providing data about climatic and atmospheric conditions, soils, and a variety of organisms. The instrument hut would house instruments like gas analyzers and communications hardware used to transmit real time data to the NEON central repository.

Specifically, the permit would allow the following actions:

- Construct 240 feet of access driveway to the south of the “Lower Haul Road”, which is a dirt road currently being re-constructed within Bartlett Experimental Forest. NEON anticipates the need to construct to a twelve foot width to accommodate equipment access for initial installation.
- Approximately $\frac{3}{4}$ mile of subsurface electrical and communication line are expected to be buried alongside the Lower Haul Road from the Bartlett Water Precinct building to the study site.
- Install a 12 ft. by 16 ft. cement pad for an instrument hut and guyed tower, the latter of which is expected to rise approximately 30 feet above the forest canopy to a total height of 114’.
- Install a surface propane tank and transformer.
- Install approximately 750 feet of 5 foot wide boardwalk within the study site.
- Install 5 soil pits along the boardwalks.
- Install fencing around the instrument hut and tower.

Design Features:

- The tower above the forest canopy and a minimum of twenty feet below the canopy will be painted a flat medium brown, as will the instrument hut.
- All vehicles will be cleaned to ensure that they are weed and seed free before accessing National Forest System Lands during construction and/or soil disturbing activities.

This decision is based on my review of the project record, including input from the public and

appropriate resource specialists. The project record shows a thorough review of relevant scientific information, a consideration of responsible opposing views, and the acknowledgement of incomplete or unavailable information, scientific uncertainty, and risk.

4 Rationale for Categorically Excluding the Decision

Based on information in the project record I have concluded that this decision can be categorically excluded from documentation in an environmental impact statement or environmental assessment. Decisions may be categorically excluded from documentation in an environmental impact statement or an environmental assessment when they are within one of the categories found at 36 CFR 220.6(d) and (e), and there are no extraordinary circumstances related to the decision.

4.1 Category of Exclusion

I have determined that the selected action is a routine activity within the following category of exclusion found at 36 CFR 220.6(e)(3): Approval, modification, or continuation of minor special uses of NFS lands that require less than five contiguous acres of land.

4.2 Finding that No Extraordinary Circumstances Exist

Based on information presented in this document and the entirety of the project record, I have evaluated the resource conditions listed in 36 CFR 220.6(b)(1) and determined there are no extraordinary circumstances related to this project. As indicated in 36 CFR 220.6(b)(2), the mere presence of one or more of the listed resource conditions does not preclude use of a categorical exclusion. It is the degree of the potential effects of a proposed action on these resource conditions that determines whether extraordinary circumstances exist. As long as the potential effects on these resources are clearly not significant, there are no extraordinary circumstances (Forest Service Handbook 1909.15, Chapter 31.2). A summary of the project's potential effects on each resource condition follows.

Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species.

The 1972 (as amended) Endangered Species Act (ESA) requires that federal activities not jeopardize the continued existence of any species federally-listed or proposed as threatened or endangered, or result in adverse modification to such species' designated critical habitat. As required by the ESA, potential effects of this decision on listed species have been analyzed and documented in a Biological Evaluation (located in Special Use Permit Issuance Project File).

As detailed in the Biological Evaluation, the decision to issue this special use permit would cause no effect to Federally-listed threatened species. Because the project area is small and there are no species or critical habitat present or nearby, there is no probability of occurrence of other Federal or Regional Forester-listed species nor critical habitat in the project area.

Potential effects of this decision on Regional Forester sensitive species also have been analyzed and documented in a Biological Evaluation. As detailed in the Biological Evaluation, this decision will have "no impact" on any sensitive species because no sensitive species have the potential to occur in the area

that would be affected by this project.

Floodplains, Wetlands, or Municipal Watersheds

Executive Orders 11988 and 11990 direct federal agencies to avoid adverse impacts to floodplains or wetlands, which are defined in the executive orders.

Based on map and site review, the project is not located in or near floodplains or wetlands. Therefore, effects from this decision on floodplains and wetlands will be non-existent.

The WMNF Forest Plan indicates that high quality water will be maintained for public water supplies. This decision will not negatively affect municipal watersheds because the minimal disturbance will not affect water quality or quantity.

Congressionally designated areas, such as wilderness, wilderness study areas, or national recreation areas

The closest Wilderness, the Presidential-Dry River Wilderness Area, is one mile north of the project. The project record indicates that impacts from this project would be limited to the immediate area of activity. Therefore, this decision will not affect any Wilderness Area.

Inventoried roadless area or potential wilderness area

There are no inventoried roadless areas from the Roadless Area Conservation Rule or WMNF Forest Plan inventories in the area that would be affected by this decision. Therefore, this decision will not affect inventoried roadless areas.

Research Natural Areas

There are no Research Natural Areas in the project area. The closest Research Natural Area, the Nancy Pond Research Natural Area, is approximately 5 miles northwest of the project. This decision, with impacts limited to the immediate area of activity, will not affect Research Natural Areas.

American Indian and Alaska Native religious or cultural sites

This decision complies with the Native American Graves Protection and Repatriation Act. Surveys were conducted for Native American religious or cultural sites that might be affected by this decision. No resources of concern were present. Consultation is pending with the State Historic Preservation Office and no action will take place until they concur with our findings.

Archaeological sites and historic properties or areas

This decision complies with the National Historic Preservation Act and the Archaeological Resources Protection Act. Surveys were conducted for archaeological sites and historic properties or areas that might be affected by this decision. There are no cultural resources or historic sites known to be present. Consultation is pending with the State Historic Preservation Office and no action will take place until they concur with our findings. Discovery of any previously unknown heritage resources during implementation of this project will result in a stop of all construction and ground disturbing activities until consultation with the Forest Heritage Program Manager.

Clean Water Act

The intent of the Act is to restore and maintain the integrity of waters. The Forest Service complies with this Act through the use of best management practices. This decision incorporates best management practices where applicable to ensure protection of soil and water resources.

Wetlands (Executive Order 11990) and Floodplains (Executive Order 11988)

See 4.2, Floodplains, Wetlands, or Municipal Watersheds, in this document.

Clean Air Act

Under this Act areas of the country were designated as Class I, II, or III airsheds for Prevention of Significant Deterioration purposes. Impacts to air quality have been considered for this decision. Class I provides the most protection to pristine lands by severely limiting the amount of additional human-caused air pollution that can be added to these areas. The Great Gulf and the Presidential-Dry River Wilderness areas, the closest of which is 1 mile from this project, are the only a Class I airsheds on the WMNF. This decision, with impacts limited to the immediate area of activity, will not affect any Class I airsheds.

National Historic Preservation Act, Archaeological Resources Protection Act, Native American Graves Protection and Repatriation Act

See 4.2, Native American Cultural Sites, and Archaeologic/Historic Sites, in this document.

Wild and Scenic Rivers Act

See 4.2, Congressionally Designated Areas, in this document.

Federal Noxious Weed Act of 1974 and Executive Order 11312 (Non-Native Invasive Species)

The Federal Noxious Weed Act requires cooperation with State, local, and other federal agencies in the management and control of non-native invasive species (NNIS); Executive Order (EO) 11312 requires all pertinent federal agencies (subject to budgetary appropriations) to prevent the introduction of NNIS. This project's decision meets the intent of this law and EO by incorporating all pertinent Forest Plan Standards and Guidelines to ensure the management and control of NNIS .

Migratory Bird Treaty Act

This decision is consistent with this Act, Executive Order 13186, and the Memorandum of Understanding between the Forest Service and U.S. Fish & Wildlife Service to promote the conservation of migratory birds. The Biological Evaluation evaluates the likely effects to migratory birds of management concern that are known to nest and breed on the White Mountain National Forest and finds there would be no adverse effects to any of these species.

Environmental Justice (Executive Order 12898)

This order requires consideration of whether projects would disproportionately impact minority or low-income populations. This decision complies with this order. Public involvement occurred for this project, the results of which I have considered in this decision-making. Public involvement did not identify any adversely impacted local minority or low-income populations. This decision is not expected to adversely impact minority or low-income populations.

5 Public Involvement

This project was listed on the quarterly White Mountain National Forest Schedule of Proposed Actions (SOPA) beginning in October 2010, and will remain on the SOPA until after a decision is made. Public involvement included a scoping notice, which was sent on October 20, 2010 to the New Hampshire Trails Bureau, Bear Notch Nordic Touring Center, Town of Bartlett Water Precinct, and private citizens that might be affected. Scoping also included notification of White Mountain National Forest resource specialists, including the Forest hydrologist, soil scientist, archaeologist, botanist and Saco district biologist, as well as consultation with Bartlett Experimental Forest staff.

6 Findings Required By and/or Related to Other Laws and Regulations

My decision will comply with all applicable laws and regulations. I have summarized some pertinent ones below.

National Environmental Policy Act

This Act requires public involvement and consideration of potential environmental effects. The entirety of documentation for this decision supports compliance with this Act.

Forest Plan Consistency (National Forest Management Act)

The National Forest Management Act (NFMA) requires that all site-specific project activities be consistent with direction in the applicable Land and Resource Management Plan (Forest Plan). This project implements the WMNF Forest Plan. As required by NFMA Section 1604(i), I find this project to be consistent with the WMNF Forest Plan including goals, objectives, desired future conditions, and Forest-wide and Management Area standards and guidelines.

Federal Land Policy and Management Act

This Act allows the granting of easements across National Forest System Lands. The regulations at 36 CFR 251 guide the issuance of permits, leases, and easements under this Act. Permits, leases, and easements are granted across National Forest System lands when the need for such is consistent with planned uses and Forest Service policy and regulations. The area designated for the power line will be added to existing New Hampshire Electric Coop easements by the Bartlett Experimental Forest. My decision is consistent with the Federal Land Policy and Management Act.

Endangered Species Act

See 4.2, Federally Listed Species, in this document.

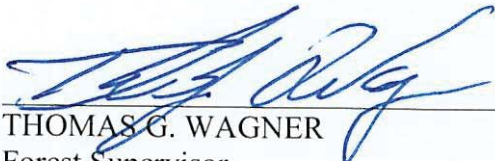
7 Administrative Appeal, Implementation Date and Contact

In accordance with 36 CFR 251, this decision is not subject to appeal. Therefore implementation of this decision may begin immediately upon completion of the associated special use permit.

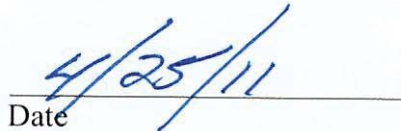
For additional information concerning this decision, contact: Rod Wilson at email: rdwilson@fs.fed.us, or by phone at (603) 447-5448, x120, or by FAX (603) 447-8405.

Additional information about this decision also can be found on the White Mountain National Forest web page at: www.fs.fed.us/r9/forests/white_mountain.

The Responsible Official for the NEON Special Use Permit is Thomas G. Wagner, Forest Supervisor.

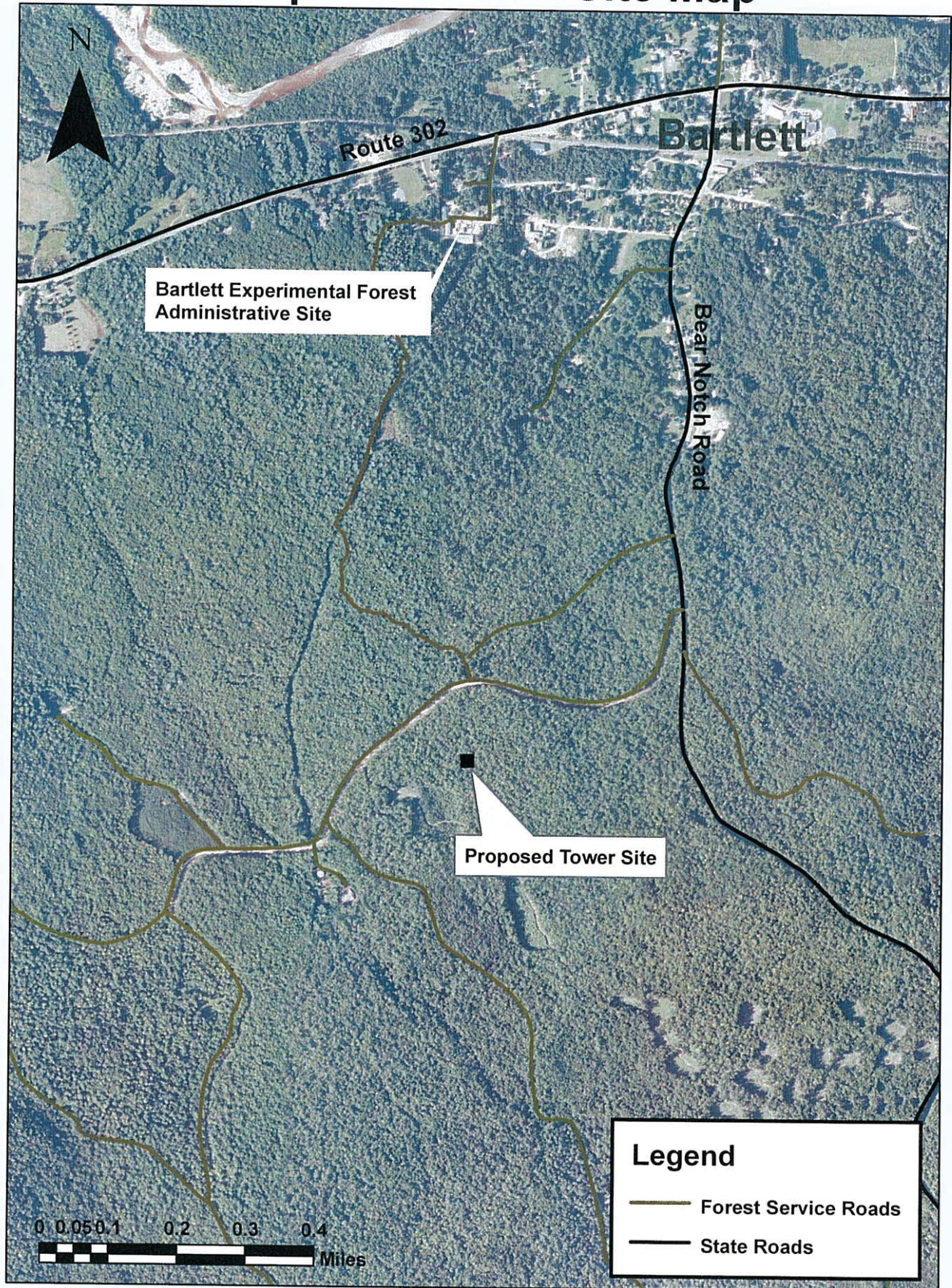


THOMAS G. WAGNER
Forest Supervisor



Date

NEON Project Proposed Tower Site Map



NEON Project Proposed Tower Site Map

