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# Indiana Bat Habitat Improvement Project, Middlebury

## Decision Memo

**USDA Forest Service, Eastern Region  
Green Mountain National Forest  
Middlebury Ranger District  
Town of Middlebury, Addison County, Vermont**

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**DECISION MEMO**  
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USDA Forest Service, Eastern Region, Green Mountain National Forest  
Middlebury/Rochester Ranger Districts  
Town of Middlebury, Addison County, Vermont

**I. SUMMARY**

As District Ranger for the Middlebury and Rochester Ranger Districts of the Green Mountain National Forest (GMNF), I am authorizing the Indiana Bat Habitat Improvement Project on the Middlebury office administrative site. The activities will generally follow Vermont State Fish and Wildlife Department forest management guidelines, as well as GMNF 2006 Forest Plan standards and guidelines, for Indiana bat habitat management and improvement. The activities will improve roosting and foraging habitat conditions. A site plan will be created that will identify and monitor potential roost trees and bat activities at the administrative site. Wildlife staff will also contact adjacent landowners on the north side of U.S. Route 7 and other adjacent lands so that efforts can be made to identify and conserve other potential roost sites.

**II. DECISION TO BE IMPLEMENTED**

**A. Background and Project Area**

The project area is located in the Town of Middlebury, Addison County, on the Middlebury Ranger District of the GMNF. The parcel of National Forest System (NFS) land housing the Middlebury Ranger Station and Work Center (Administrative site) contains about three acres of forest land that has been identified by GMNF Wildlife staff as a potential bat summer roosting and foraging site. Management of the Administrative site is under the direction for the Diverse Forest Use Management Area (MA). The site is within three miles of a known Indiana bat maternity roosting site and also within three miles of mist net survey locations where at least four different bat species have been captured, including Federally Endangered Indiana bats and Regional Forester Sensitive Species Eastern small-footed bats. The site, including adjacent private lands, lies within the Champlain Valley of Vermont, which has been identified as important summer range for Indiana bats.

**B. Purpose and Need**

The purpose of the bat habitat improvement project is to improve roosting and foraging habitat by identifying trees such as shagbark hickory that can be grown for future potential roost trees and identifying potential methods that would conserve damaged or dying trees. These activities are needed to improve habitat for threatened, endangered, and sensitive (T, E, and S) bat species such as the Indiana bat and the Eastern small-footed bat, as well as provide improved habitat conditions for other bat species.

### **C. Description of Decision**

The Vermont State Fish and Wildlife Department guidelines, the U.S. Fish and Wildlife Service (USFWS) biological opinion for the Green Mountain National Forest, and GMNF Forest Plan management direction and standards and guidelines (pg. 27-28) all serve as sources of information on improving bat habitat. Potential roost trees, particularly live shagbark hickories, will be identified on the site. The following criteria will be used to identify roost trees:

- a. Favor live shagbark hickory or black locust trees, or dead and dying trees (in earliest stage of decay)
- b. Favor trees that have exfoliating bark and are greater than 8-10 inches diameter at breast height (dbh)
- c. Potential roost trees should be dominant or co-dominant
- d. Trees should receive some level of direct solar radiation
- e. Trees should generally lie within 20 feet of forest cover.

Girdling, thinning, and removal of some trees will be done around potential roost trees. Girdling will provide an early stage of decay for future potential roost trees if the trees are far enough away from structures, parking lots, walkways, and powerlines so that they are not future hazards. This type of “daylighting” or creating small open areas on as many as three sides of roost trees, particularly live shagbark hickories greater than 12 inches dbh, will be done to allow direct solar radiation (sunlight) to reach these selected potential roost trees and enhance their growth. Adequate canopy cover within 20 feet of these trees will be left to allow bats to move into and out of forest cover assuring connectivity to suitable foraging habitat. The removal of any tree snags greater than four inches in diameter is only allowed if that snag poses a direct safety threat to people accessing the site. Where identified, undesirable vegetation such as second growth young smooth barked hardwoods and tall brush may be cut to reduce midstory and understory clutter adjacent to potential roost trees to enhance their growth and provide foraging and travel corridors.

A plan for control of non-native invasive species (NNIS) at this site will be developed with consultation with the Forest botanist. NNIS do exist on the site and will require various methods of control. Information from the on-going (at this time) forest-wide Invasive Plant Control (IPC) environmental assessment will be incorporated into the control plan. The cutting of any trees, shrubs, or other vegetation will be done consistent with this plan.

All shagback hickory trees will be reserved (not cut) as potential roost trees. The goal will be to identify and conserve at least seven potential roost trees per acre consisting of at least one tree greater than 18 inches dbh and at least four trees between 10 and 18 inches dbh. The number of potential roost trees need not be distributed evenly throughout the parcel and may be concentrated in areas having the slope, aspect, and position (i.e., forest edge) that enhances solar radiation as well as connectivity to suitable foraging habitat. The changes to the habitat condition will be minor and unnoticeable to the general public. A prescription will be developed to properly account for any removed trees. Some of the removed hardwood trees may be used for firewood.

As noted above, a site plan will be developed to identify and monitor potential roost trees and bat activities at the Administrative site. Wildlife staff will also contact adjacent landowners so that other potential roost sites can be identified and conserved.

This decision is based upon an environmental analysis conducted by Forest Service personnel. This information is located in the Project Record at the GMNF Middlebury Ranger District Office in Middlebury, Vermont.

### **III. REASONS FOR CATEGORICALLY EXCLUDING THE DECISION**

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, and there are no extraordinary circumstances related to the decision that may result in a significant individual or cumulative environmental effect.

#### **A. Category of Exclusion**

Based upon the environmental analysis contained in the Project Record and on experience with similar activities on the GMNF and other NFS lands, I have determined that the selected action is a routine activity within the following category of exclusion found at 36 CFR 220.6(e)(6), “wildlife habitat improvement activities that do not include the use of herbicides or do not require more than 1 mile of low standard road construction.” All environmental and social impacts of the selected action will fall within the range of effects anticipated by this category.

#### **B. Relationship to Extraordinary Circumstances**

The list of extraordinary circumstances that were examined for this analysis may be found at 36 CFR 220.6(b). The mere presence of one or more of these 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. A thorough analysis of the resource conditions in the project area was conducted by resource specialists, including review of the project details at the October, 2008 Small Projects Day. I have considered the feedback and conclusions from these resource specialists and find there are no extraordinary circumstances that may result in any significant individual or cumulative environmental effects. My conclusion is based on information presented in this document and the entirety of the Project Record. A summary of the project’s potential effects on each resource condition is as follows:

1. 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 Green Mountain National Forest has historic occurrence records for three T&E species, the Eastern cougar, gray wolf, and Canada lynx and current occurrence records for the Indiana bat. There are no known occurrences of the Eastern cougar, gray wolf, and Canada lynx at the project site but it is possible that Indiana bat roosting and foraging could occur, particularly in one or more of the shagbark hickories on the project site. The likelihood of occurrence for any of our forests' T&E species is low with the exception of Indiana bats which may occur at or near the site during the summer. The elevation of the project site is 450 feet above sea level, within the projected summer range of Indiana bats in Vermont.

Also, several shagbark hickories are greater than 12" dbh and none of the hickories exceed 16" dbh at this time. These sawtimber sized shagbark hickories are an important roosting and maternity habitat component. Given the relatively small size and scope of the project, this site is not considered critical habitat. However, when considering that this site is less than three miles from a known Indiana bat summer maternity colony, the importance of protecting and improving habitat conditions favoring shagbark hickories is increased. As such, this project will have "no adverse effects on T&E species or critical habitat".

The project site has not been surveyed for RFSS animals. However, Forest Service employees have not documented or identified any species currently on the Regional Foresters list. The habitats affected by this project have been previously impacted and these activities will have little impact on the existing habitats in the area. This project will have "**no impact**" on any of the Regional Foresters Sensitive Species or their habitats.

Additional determinations for Indiana bats and Eastern small-footed bats (RFSS) are that completing this project may be beneficial for both of these species. These determinations are based on the understanding that all Forest Plan Standards and Guidelines will be followed during the implementation of the project, along with the following mitigation:

Project work will occur between October 1st and March 31st to assure that no habitats providing roosting structure for forest bats, including Indiana bats, would be impacted as a result of project implementation.

There are no federally listed T&E plant species on the GMNF. No plants on the RFSS list are known from the area; species on the RFSS list that are associated with low elevation dry limy woods may occur there, as may butternut, though none have ever been found during informal field visits. Those species with potential habitat would be unlikely to be affected, since the project is neither ground-disturbing nor habitat converting. Butternut trees, if present, will not be cut.

Therefore, it has been determined that implementation of this decision would have 'no effect' on federally listed animal or plant species or their critical habitats. There would also be no significant impact to any plant or animal RFSS (Wildlife Biological Evaluation, Project Record; Plant Biological Evaluation, Project Record).

2. Floodplains, Wetlands, or Municipal Watersheds

There is no Water Source Protection Areas (WSPA), floodplains, or wetlands in the project area. This decision, with impacts limited to the immediate area of activity, will not affect any WSPAs, floodplains or wetlands (Small Projects Day report, Project Record).

3. Congressionally Designated Areas, such as Wilderness, Wilderness Study Areas, or National Recreation Areas

Wilderness:

The project area does not lie within or close to any Wilderness area. Wilderness is defined in the Forest Plan as Management Area 5.1. This decision, with impacts limited to the immediate area of activity, will not affect any Wilderness area (Small Projects Day report, Project Record).

Wilderness Study Areas:

There are no Congressionally designated Wilderness Study Areas on the GMNF.

National Recreation Areas:

The project area does not lie within or close to any designated National Recreation Areas (NRA). This decision, with impacts limited to the immediate area of activity, will not affect any National Recreation Areas (Small Projects Day report, Project Record).

Wild and Scenic Rivers:

Although the GMNF does not contain any Congressionally designated Wild and Scenic Rivers, there are many river segments that are eligible to be further considered for addition to the National Wild and Scenic River System. These river segments and their associated corridors would lie within the eligible Wild, Scenic, and Recreational Rivers Management Area (MA 9.4). The project area does not lie within any eligible Wild, Scenic, or Recreation river corridor. This decision, with impacts limited to the immediate area of activity, will not affect any eligible Wild, Scenic, or Recreation river corridor (Small Projects Day report, Project Record).

4. Inventoried Roadless Areas or Potential Wilderness Areas

The project area does not lie within any inventoried roadless areas (Roadless Area Conservation Rule or Forest Plan Inventoried Roadless Areas). This decision, with impacts limited to the immediate area of activity, will not affect inventoried roadless areas (Small Projects Day report, Project Record).

5. Existing and Candidate Research Natural Areas

The project area does not lie within any Research Natural Area. This decision, with impacts limited to the immediate area of activity, will not affect Research Natural Areas (Small Projects Day report, Project Record).

6. American Indian and Alaska Native Religious or Cultural Sites

See Item 7 below.

7. Archaeological Sites, or Historic Properties or Areas

This decision complies with the National Historic Preservation Act, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act. There are no sensitive sites in the project area. This decision, with impacts limited to the immediate area of activity, will not affect any historic properties or archaeological sites (Small Projects Day report; Project Record).

8. Other Resources

In addition to the above resource conditions that could lead to extraordinary circumstances, I also have considered the direct, indirect, and cumulative effects to other resources such as soil/water, fisheries, visuals, recreation, and non-native invasive species. It has been determined that there are no important ecological features or concerns. The project will not result in significant impacts to these resources, particularly because all applicable Forest Plan Standards and Guidelines, and mitigation measures listed below, will be implemented.

All Specialists review comments and findings related to extraordinary circumstances may be found in the Project Record.

#### **IV. MITIGATION MEASURES/DESIGN CRITERIA**

The following measures will be followed to eliminate or minimize environmental impacts:

1. A plan for control of non-native invasive species (NNIS) at this site will be developed with consultation with the Forest botanist. Information from the on-going (at this time) forest-wide Invasive Plant Control (IPC) environmental assessment will be incorporated into the control plan. The cutting of any trees, shrubs, or other vegetation will be done consistent with this plan.
2. All shagback hickory trees will be reserved (not cut) as potential roost trees.
3. No butternut trees will be cut as part of the thinning and daylighting process.
4. Project work will occur between October 1 and March 31 to assure that no habitats providing roosting structure for forest bats, including Indiana bats, would be impacted as a result of project implementation.

#### **V. PUBLIC INVOLVEMENT**

This project has been listed in the quarterly *Green Mountain National Forest Schedule of Proposed Actions* (SOPA) and will remain in the SOPA until the project is authorized for implementation. The project was scoped with resource specialists at the October, 2008 Small Projects Day. Other contacts include the Vermont Agency of Natural Resources (bat specialists) and the US Fish & Wildlife Service. Since the project area (the Administrative site for the Middlebury Office) is small in size, is relatively removed from the normally used recreation areas on the north half of the forest, and is generally not used by the public for recreational hiking or other activities, little public interest was expected and received for this project.

#### **VI. 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 the development of long-range land and

resource management plans, and that all site-specific project activities be consistent with direction in the plans. The GMNF Land and Resource Management Plan (Forest Plan) was completed and approved in 2006 as required by NFMA. The Forest Plan provides direction for all management activities on the GMNF. The Indiana Bat Habitat Improvement Project implements the Forest Plan and is within the Diverse Forest Use (DFU) Management Area (MA). The activities needed to improve bat habitat on this site are allowable under this MA. Forest Plan standards and guidelines, along with any mitigation developed for this decision, would be applied.

My decision is based on the best available science, including a review of the record that shows a thorough review of relevant scientific information, a consideration of responsible opposing views, and the acknowledgment of incomplete or unavailable information, scientific uncertainty, and risk. As required by NFMA Section 1604(i), I find this project to be consistent with the Forest Plan including goals, objectives, desired future conditions, and Forest-wide and Management Area Standards and Guidelines.

Endangered Species Act - The Endangered Species Act requires that federal activities do 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. In accordance with Section 7(c) of this Act, a report of the listed and proposed, threatened, or endangered species that may be present in the project area was reviewed. See Section III, Item B.1 of this document.

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 Forest Plan Standards and Guidelines, specific project design criteria, and/or mitigation measures to ensure protection of soil and water resources.

Wetlands (Executive Order 11990) - Executive Order 11990 directs the agency to avoid to the extent possible the adverse impacts associated with the destruction or modification of wetlands, and to avoid support of new construction in wetlands wherever there is a practical alternative. See Section III, Item B2 of this document.

Floodplains (Executive Order 11988) - Executive Order 11988 directs the agency to avoid to the extent possible the adverse impacts associated with the occupancy and modification of floodplains, and to avoid support of floodplain development wherever there is a practical alternative. See Section III, Item B2 of this document.

National Historic Preservation Act - Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effect of a project on any district, site, building, structure, or object that is included in, or eligible for inclusion in the National Register. It also requires federal agencies to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. See Section III, Items B.6 and B.7 of this document.

Archaeological Resources Protection Act - The Archaeological Resources Protection Act covers the discovery and protection of historic properties (prehistoric and historic) that are excavated or discovered in federal lands. It affords lawful protection of archaeological resources and sites that are on public and Indian lands. See Section III, Items B.6 and B.7 of this document.

Native American Graves Protection and Repatriation Act - The Native American Graves Protection and Repatriation Act covers the discovery and protection of Native American human remains and objects that are excavated or discovered in federal lands. It encourages avoidance of archaeological sites that contain burials or portions of sites that contain graves through “in situ” preservation, but may encompass other actions to preserve these remains and items. See Section III, Items B.6 and B.7 of this document.

Wild and Scenic Rivers Act - See Section III, Item B.3 of 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 decision meets the intent of this law and EO by incorporating all pertinent Forest Plan Standards and Guidelines and specific mitigation measures (listed above) to ensure the management and control of NNIS.

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 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.

## **VII. ADMINISTRATIVE REVIEW OR APPEAL and IMPLEMENTATION DATE**

This decision is not subject to an administrative review or appeal pursuant to 36 CFR 215. This decision may be implemented immediately.

## **VIII. CONTACT PERSON**

Further information about this decision can be obtained from Mike Burbank during normal office hours (weekdays, 8:00 a.m. to 4:30 p.m.) at the Middlebury Ranger District at 1007 Route 7 South, Middlebury, Vt. 05753; Phone: (802) 388-4362 ext 114; Fax: (802) 388-3842 *or* e-mail: mburbank@fs.fed.us

## **SIGNATURE AND DATE**

*Gregory D. Smith*

*July 30, 2009*

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GREGORY D. SMITH  
District Ranger, Middlebury & Rochester Ranger Districts  
Responsible Official

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DATE