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Big Branch Bridge Replacement Project

Decision Memo

USDA Forest Service, Eastern Region
Green Mountain/Finger Lakes National Forest
Manchester Ranger District
Town of Mount Tabor
Rutland County, Vermont

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Manchester Ranger District
Town of Mount Tabor, Rutland County, Vermont

I. SUMMARY

As Forest Supervisor for the Green Mountain National Forest (GMNF), I am authorizing the replacement, in-kind, of the Big Branch suspension bridge across the Big Branch River. The project is located on National Forest System land in the Town of Mount Tabor, Rutland County, VT on the Manchester Ranger District of the GMNF (Figure 1). This project is located within the Big Branch Wilderness area, approximately .5 miles south of Forest Road 10. The bridge is part of the Appalachian National Scenic Trail (AT) and Long National Recreation Trail (LT) system.

II. DECISION TO BE IMPLEMENTED

A. Background and Project Area

An existing one-hundred foot span steel and timber suspension bridge on the Appalachian National Scenic and Long National Recreation Trail (AT/LT), within the Big Branch Wilderness is at the end of its use life. The bridge was constructed to cross the Big Branch River in 1962, prior to Wilderness designation. In 1984, Congress designated the Big Branch as Wilderness (PL 98-322) and was expanded in 2006 (PL 109-382), which includes the project area. The bridge is 1.2 miles from the AT/LT Trailhead on Forest Road (FR) 10 and .5 miles inside the Wilderness boundary (**Attachment 1**).

B. Purpose of Decision

The Forest Engineer's Inspection Report, dated 6/8/2007, states:

“Overall, this bridge is in SERIOUS CONDITION. An IDT Team should be organized and Pre-NEPA/NEPA should be initiated as soon as possible for the reconstruction or removal of the bridge. The bridge was constructed in 1962 and all of the wood components have deteriorated to a point that their load carrying capacity has been reduced. The bridge should be posted to allow no more than 1 person on the bridge at any one time. The bridge will be inspected by Engineering on a yearly basis.”

The bridge has been posted since May 2006 to accommodate the Engineer's recommendations. The replacement of the Big Branch bridge will resolve the condition concerns stated in the Inspection Report.

This decision is intended to contribute towards provisions in the above Wilderness Acts which state:

PL 98-322, Vermont Wilderness Act of 1984:

Section 104(c): Notwithstanding any provision of the Wilderness Act or any other provision of law, the Appalachian Trail and **related structures**, the Long Trail and **related structures**, and the associated trails of the Appalachian Trail and the Long Trail in Vermont may be maintained.

PL 109-382, New England Wilderness Act of 2006:

Section 213(c) TRAILS.—The Forest Service shall allow the continuance of—

- (1) the Appalachian National Scenic Trail;
- (2) the Long Trail;
- (3) the Catamount Trail; and
- (4) the marking and maintenance of associated trails and **trail structures** of the Trails referred to in this subsection, consistent with the management direction (including objectives, standards, guidelines, and agreements with partners) established for the Appalachian National Scenic Trail, Long Trail, and Catamount Trail under the Management Plan.

This decision is intended to contribute toward accomplishment of the 2006 Forest Plan Desired Future Condition for the Wilderness Management Area (MA) of maintaining the unique characteristics of both the wilderness areas and the AT/LT (Plan, p. 49).

In addition, this decision responds to the Wilderness MA AT/LT Guideline 2 (G-2) that states that “Existing shelters and associated facilities may be maintained on the AT/LT and associated trails” (Plan, p. 52).

C. Alternative Actions Considered but Dismissed

Alternative Considered	Rationale for Removing from Consideration
No action.	This alternative would allow the bridge to continue to degrade to a degree to which it is completely unsafe and impassable, which would negatively effect the AT/LT system. Based on Forest Service (FS) Policy and Wilderness legislation, the bridge needs to be replaced. A safe crossing is not available during the primary season of use (summer and fall) and all other reasonable options to reroute the trail have been exhausted.
Relocation of the bridge and/or crossing location.	Extensive scouting was conducted in August 2006, utilizing the Appalachian Trail Conservancy’s Optimal Location Review process, to determine if an acceptable route was available outside of the Wilderness boundary. The scouting team [FS wilderness and trail personnel and Green Mountain Club (GMC) representatives], after thorough investigation, concluded that a reasonable relocation of the trail system was not feasible.
Construction of a rock crossing (ford) at the bridge site.	Large boulders currently exist at the site, however due to the unpredictable flow rates/levels of the Big Branch, a rock crossing would not serve to facilitate safe access.
Utilize pack stock for transport of bridge materials.	The portion of the AT/LT that would be used to access the bridge site (1.2 miles) contains significant lengths of “step and run” puncheon, which pack stock will not walk on.
Utilize the “low standard construction access road” built in 1962 (.5 miles) to access site from FR 10.	Over time, this road bed has grown back with native vegetation and is highly saturated. Resource damage would exceed acceptable limits if multiple trips by either pack stock or human use were permitted.
Replacement without the use of mechanical/motorized equipment	As described in Section II.B above, this alternative would double the duration of the project and would also require extensive hauling of creosote-treated timbers on a narrow trail with challenging footing. Safety concerns for employees and contractors completing this work were a strong consideration.

D. Description of Decision

My decision is to replace the Big Branch suspension bridge. It is not a clear cut or simple decision to weigh the effects upon wilderness character, public purposes of wilderness, and safety. In each case, there are immeasurable benefits and costs to any administrative action in wilderness and such decisions should not be taken lightly and certainly have not been in this situation. This decision, including the specifications below, is based upon the Minimum Requirements Decision Guide (MRDG), also referred to as the Minimum Tool concept (**Attachment 2**). The MRDG is a process designed to identify, analyze, and select management actions that are the minimum necessary for wilderness administration. This process has been ongoing since the summer of 2006 and the completed analysis is available in the project file.

The existing concrete abutments and steel cables have preliminarily been inspected by Forest Engineer's and it is their opinion that they may be re-used. Final determination on the feasibility to reuse the abutments and cable will be made by a private engineering firm. The other major structural components, including the towers and I-beams will be replaced with treated wood. These materials will provide a balance between useful life and natural appearance.

This decision also includes the transport of new bridge components to the site and removal of existing components with the use of helicopter. This component of the decision is dependent on approval from the Regional Forester who has the authority to permit the non-emergency use of mechanical transport in wilderness. The use of a helicopter in wilderness is also a complex decision. By employing a helicopter, the duration of the construction process will be significantly reduced from 16-24 to 2-3 weeks. The estimated weight of the existing, creosote-treated bridge materials is 25,000 pounds which would expose personnel to potential injury for many weeks in order to haul this material out over challenging terrain. The existing bridge material is treated with creosote or CCA, both of which are known health hazards with the potential to cause serious medical conditions after prolonged exposure. Additionally, the impacts to the trail and area for stockpiling the construction materials for several months would be a significant impact to local flora and trail tread. The trail would require additional maintenance reduce soil erosion and the staging area for the bridge materials would probably require a couple of years to revegetate to a similar natural state.

My decision also includes the project features referred to in Sections III, B7 of this document, and in Attachment 2 (MRDG).

The project site is located along the AT/LT within the Big Branch Wilderness, in the Town of Mount Tabor, Rutland County as displayed on the attached map (Attachment 1).

III. REASONS FOR CATEGORICALLY EXCLUDING THE DECISION

Decisions may be categorically excluded from documentation in an environmental impact statement or environmental assessment when they are within one of the categories identified by the U.S. Department of Agriculture in 7 CFR part 1b.3 or one of the categories identified by the Chief of the Forest Service in Forest Service Handbook (FSH) 1909.15, Amendment No. 1909-15-2007-1 (February 15, 2007), Chapter 30, sections 31.12 or 31.2, and there are no extraordinary circumstances related to the decision that may result in a significant individual or cumulative environmental effect.

I have concluded that this decision is appropriately categorically excluded from documentation in an environmental impact statement or environmental assessment as it is a routine activity

within a category of exclusion and there are no extraordinary circumstances related to the decision that may result in a significant individual or cumulative effect on the quality of the human environment. My conclusion is based on information presented in this document and the entirety of the record.

A. Category of Exclusion

The decision is within the category of exclusion 31.2 (1) that includes, "Construction and reconstruction of trails."

B. Relationship to Extraordinary Circumstances

The list of seven extraordinary circumstances that were examined for this analysis may be found in FSH 1909.15, section 30.3 (2). 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 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 GMNF has historic occurrence records of three federally listed T&E species, the eastern cougar, gray wolf, and Canada lynx, and current occurrence records for two species, the bald eagle, and Indiana bat. There are no known occurrences of T&E animal species in the project area, and the likelihood for actual occurrence is low. There is no T&E critical habitat within the project area. As a result of these findings, it has been determined there will be no effects to T&E animal species from this project (Wildlife BE dated 2/7/07). There are no animals on the Regional Forester's Sensitive Species (RFSS) list known to occur in the project area. The project will have no impact on any RFSS or their preferred habitat (Wildlife BE dated 2/7/07).

There are no federally listed T&E plant species on the GMNF. No plants on the RFSS list or associated good potential rare plant habitat are known to occur at the project site. The only exception is *Muhlenbergia uniflora* which although has a low probability of occurrence, has potential habitat along the stream banks of the Big Branch River. If individual plants did exist, they could be trampled during project implementation. However, given that this species is ranked S2 in the state and there are four extant occurrences on the GMNF, damage to individual plants would not be likely to lead to loss of viability on the Forest, or a trend toward federal listing (Plant BE dated 6/7/07).

2. Floodplains, Wetlands, or Municipal Watersheds -

Floodplains: The project is not located in or near floodplains, wetlands, or municipal watersheds. This has been validated by map review of the project area. No significant impacts to floodplains, wetlands or municipal watersheds are expected to result from this project (Small Projects Day (SPD) 10/24/06, Nancy Burt).

3. Congressionally Designated Areas -

Wilderness:

This decision includes activity within the Big Branch Wilderness Area (Plan, p. 49). Specific project information may be found in Section II.B of this document. The decision is based upon the Big Branch Bridge Replacement Minimum Requirements Decision Guide (MRDG), also referred to as the Minimum Tool concept (Attachment 2). The MRDG is a process designed to identify, analyze, and select management actions that are the minimum necessary for wilderness administration. The effects of this project on wilderness character are not expected to be significant or last beyond the immediate construction phase. The replacement of the bridge would maintain the recreation access and level of development historically present at this location since 1962.

Wilderness Study Areas:

There are no Wilderness Study Areas in the decision area. This decision will not affect Wilderness Study Areas.

National Wild, Scenic, and Recreation Rivers:

There are currently no Congressionally designated Wild, Scenic, or Recreation Rivers on the Green Mountain National Forest. However, the segment of the Big Branch River where the project is located is identified as an Eligible Scenic River in the 2006 Forest Plan (Eligible Wild, Scenic, and Recreational River MA). This project will not affect the Outstandingly Remarkable Values (ORV) for which it was determined to be eligible and will be managed according to the direction in FSH 1909.12, section 82.5 (1/10/08, Chad VanOrmer).

National Recreation Areas:

This decision includes activity in proximity to the Robert T. Stafford White Rocks National Recreation Area. Users in the area during the construction phases of this project will have some noise impacts from helicopter activity, however the project will not result in significant impacts on the National Recreation Area (SPD 10/24/06, Chad VanOrmer).

4. Inventoried Roadless Areas -

There are no inventoried roadless areas (2001 Roadless Area Conservation Rule or 2006 Forest Plan) in the project area. This decision will not affect inventoried roadless areas.

5. Existing and Candidate Research Natural Areas -

There are no Research Natural Areas in the project area. The closest Research Natural Area, the Blue Ridge Fen Candidate Research Natural Area, is approximately 23 miles north of the project site. This decision, with impacts limited to the immediate area of activity, will not affect Research Natural Areas.

6. American Indian and Alaska Native religious or cultural sites -

No tribal concerns, or effects to American Indian religious or cultural sites were identified for this project (SPD 10/24/06, Dave Lacy).

7. Archaeological sites, or historic properties or areas –

A 19th century wheel pit and associated surface remains adjacent to the bridge structure. Project design will ensure that activities will not have adverse effects to any historic properties (Dave Lacy, 11/30/07 e-mail). This decision complies with the National Historic Preservation Act, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act.

8. Other Resources –

In addition to 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. The project will not result in significant impacts to these resources, particularly because all applicable Forest Plan Standards and Guidelines will be implemented (communication with Resource Specialists at Small Projects Day, 10/24/06).

IV. PUBLIC INVOLVEMENT

This project was listed in the Green Mountain National Forest *Schedule of Proposed Actions* (SOPA) beginning in the 3rd quarter of 2007 (April 1, 2007, and will remain in the SOPA until the project is approved. No external issues have been identified. This project was also internally scoped with Forest Service staff during Small Projects Day on October 24, 2006. No significant internal issues were identified.

Public involvement also included direct and constant involvement with the Green Mountain Club (GMC), and telephone conversations with Forest Watch and The Wilderness Society representatives. Both Forest Watch and The Wilderness Society were contacted via phone on 11/30/07. Both organizations expressed general support for the project after they were assured that the MRDG process was included in this decision.

Communications with GMC concerning the condition of this bridge have been ongoing since at least 2003 when Forest Engineers inspected the bridge and found it to be in failing condition. After the 2006 Engineer's report which recommended limiting the bridge to one person at a time, Forest staff began to work more closely with GMC to look at alternative solutions. Extensive scouting was conducted in 2006 to determine if the trail could be relocated outside of the wilderness, where no options could be found. GMC has indicated that the Big Branch Bridge is an essential part of the AT/LT system and would like to see it maintained.

V. FINDINGS REQUIRED BY AND/OR RELATED TO OTHER LAWS AND REGULATIONS

My decision will comply with all applicable laws and regulations and uses the best available science. 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 the guidance for all natural resource management activities on the GMNF. The Forest Plan has been reviewed in consideration of this project. The Big Brank Bridge Replacement project implements the Forest Plan.

The project area is within the Wilderness Management Area (MA) and the Eligible Wild and Scenic Rivers MA as described in the 2006 Forest Plan. 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 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.

Wild and Scenic Rivers Act - See Section III, Item B.3 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, Item 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, Item 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, Item B.6 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 project’s decision meets the intent of this law and EO by incorporating all pertinent Forest Plan Standards and Guidelines, and mitigation measures to ensure the management and control of NNIS.

Environmental Justice (Executive Order 12898) - Executive Order 12898 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.

VI. ADMINISTRATIVE REVIEW OR APPEAL OPPORTUNITIES

This decision is not subject to an administrative review or appeal pursuant to 36 CFR 215 and the Earth Island Institute v. Ruthenbeck Ruling of October 19, 2005.

VII. IMPLEMENTATION DATE

This decision may be implemented immediately.

VIII. CONTACT PERSON

Further information about this decision can be obtained from Doug Reeves during normal office hours (weekdays, 8:00 a.m. to 4:30 p.m.) at the Green Mountain National Forest Supervisors Office: 231 North Main Street, Rutland, VT 05701; Phone: (802) 747-6797; Fax: (802) 747-6766; or e-mail: dreeves01@fs.fed.us.

IX. SIGNATURE AND DATE

/S/ Meg Mitchell
MEG MITCHELL
Forest Supervisor
Responsible Official

22 July, 2009
Date: