

**Finding of No Significant Impact**  
**Construction of a Temporary Trail and Hoist Location at Bat Cave**  
**Shannon County, Missouri**

**Introduction and Background**

**BACKGROUND**

Bat Cave is located on the U.S. Geological Survey's Round Spring 7.5' topographic quadrangle at T30N, R5W, SW1/4 of section 1 on lands owned by The Nature Conservancy (TNC). Bat Cave, Shannon County was historically identified as a priority 1 hibernacula for the Indiana bat. During periods from 1976 to 1980, between 40,840 and 46,000 Indiana bats were observed in Bat Cave, Shannon County with a maximum past population of 123,800 in 1972. However, the population of Indiana bats at this site had plummeted to zero in 2005 and 2006 but 327 were observed in February 2011. Bat Cave, Shannon County was historically listed as a priority 2 cave and is currently the third largest gray bat hibernaculum in the state with about 48,500 to 50,000 bats. As noted by numerous authors, the decline of gray and Indiana bats throughout their range is largely due to disturbance of hibernacula. Although an internal fence had been erected to discourage disturbance of Bat Cave, Shannon County, there was repeated illegal entry into the site between 1998 and 2007. A large cut into the fence was repaired in 2007 and it was determined by the Missouri Department of Conservation (MDC) and The Nature Conservancy, in consultation with the U.S. Fish and Wildlife Service, in 2010 that a cave gate following recent advances in gating methods should be constructed to provide further protection to hibernating gray and Indiana bats. The proposed gate would consist of 30 tons of steel to be transported to the cave opening located above the Current River. The slopes near the cave are too steep for vehicular transport and steel too heavy for manual transport on the rugged slopes. These factors have lead us to the develop of a proposed steel transport system comprised of a cable and pulley system attached to a tower at the base of the slope and either a tree or the wall of the slope near the opening of the cave.

The property around Bat Cave is owned by The Nature Conservancy, and the interior of the cave is owned by The Nature Conservancy, with the back portion of the left branch of the cave owned by Missouri Department of Conservation. The cave is under a scenic easement deed with the National Park Service (NPS) that outlines restrictions for management of the property. The relevant restrictions include the following:

- Under number 5 of the restrictions, "Cutting or permitting to be cut, destroying or removing any timber or brush, except as may be authorized in writing...."
- Under number 2 of the restrictions, "Erecting or building any structures on said lands, including major alterations to existing buildings, except as may be authorized in writing...."

The proposed project would include the clearing of a temporary trail and the construction of a temporary tower at the base of the slope for transportation of materials, both of which would require authorization in writing. Authorizations in writing for approval of any activity requires compliance with the National Environmental Policy Act (NEPA). This requires, at minimum, a screening of affected environment, analysis of the level of impacts (which may require an environmental assessment) and a decision document to be drafted and signed.

**PURPOSE**

The purpose of this project is to analyze a portion of a project to undertake necessary steps to permanently protect Bat Cave, Shannon County (hereafter Bat Cave) and to inhibit further human disturbance to the site. The purposes defined for this is to:

## Finding of No Significant Impact

### Construction of a Temporary Trail and Hoist Location at Bat Cave Shannon County, Missouri

- Clear a small temporary trail for transportation of steel materials
- Construct a hoist system for transporting steel anchored at base of the slope by a constructed temporary tower and at the cave opening from tree or rock wall.

The National Park Service requires an environmental review for the portion of the project that there are restrictions specifically listed in the scenic easement for the property. The intent of the scenic easement is to make sure that the project will not adversely affect the scenic value of the property.

#### NEEDS

Bat Cave, Shannon County needs to be gated to prevent continued disturbance to roosting gray and Indiana bats. The cave needs gating to prevent human disturbance to hibernating bats which has been identified as a leading cause for the decline of both species in North America.

All cave dwelling bats in North America are threatened with significant declines and even possible extinction due to the spread of White-nose Syndrome (WNS) and the causative fungus, *Geomyces destructans*. Because human transmission has been identified as a possible means of spreading WNS, cave gating is one recommended procedure that would restrict human access while preventing disturbance.

White-nose Syndrome (WNS) and the causative fungus, *Geomyces destructans*, is estimated to be responsible for as much as a 75 percent decline in some bat populations in the eastern United States since WNS was first documented in 2006. *Geomyces destructans* has been recently documented on gray bats in Missouri. The likely continued spread of WNS to gray bats and Indiana bats in Missouri could be catastrophic for both species.

The alternative to use a helicopter to deliver steel and materials has been dropped because of problems in logistics, safety, and the long lead times required to schedule the service. A site visit made by Missouri National Guard aviation personnel determined that the grade of the slopes, above and below the cave, would prohibit a safe cargo drop area. Consequently, an alternative plan using a temporary cable hoist system situated below Bat Cave is the only way the project can be completed. The temporary construction of a cable hoist tower, limited trail construction and the removal of a minimal number of trees will be necessary to facilitate the gating of the site. Because fencing has not proven effective in deterring human disturbance to roosting gray and Indiana bats at Bat Cave, proper gating of the site is necessary to protect these two federally listed species.

An Environmental Assessment has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, regulations of the Council on Environmental Quality (CEQ) (40 CFR 1508.9), and the National Park Service Director's Order (DO)-12 (Conservation Planning, Environmental Impact Analysis, and Decision-making).

As a result of the scoping process, the no-action alternative and one action alternative for addressing the purpose and need were selected for analysis in this EA. Each of the alternatives has been analyzed independently. The alternatives that have been evaluated are:

**Alternative A** – No action

**Alternative B** – Install a temporary trail from the west boundary of Current River State Park to a point where a temporary tower on the riparian terrace of the Current River on the property of The

## Finding of No Significant Impact

### Construction of a Temporary Trail and Hoist Location at Bat Cave Shannon County, Missouri

Nature Conservancy would be constructed. This trail would be used by light vehicles for transport of steel to the tower site. Also to install a temporary tower made of steel that would serve as an anchor point for a metal cable hoist for moving materials from the river bottom terrace to the cave gate opening approximately 100 feet above the Current River.

#### Selected Alternative

ALTERNATIVE B – Install a temporary trail from the west boundary of Current River State Park to a point on the riparian terrace on the property of The Nature Conservancy where a temporary tower would be constructed. Also, to construct and install a temporary steel tower and cable hoist that would serve as an anchor point for moving cave gate building materials from the river bottom terrace to the cave gate opening approximately 100 feet above the Current River.

#### *Install temporary trail*

Install 20 foot wide by 200 yard long temporary trail from the west boundary of Current River State Park to a point where a temporary tower and cable hoist would be constructed on property owned by The Nature Conservancy. This trail would be used by light trucks, tractors, or ATV's with trailers for the transportation of steel for the installation of one small gate and another larger cave gate in Bat Cave; as well as, the removal of the existing gate. The trail will be cleared by hand crew, tractor with bush hog and possible dozer for moving heavy dead down woody material. Soil disturbance will be kept to a minimum and all vegetation removed will be cut and uprooting of material will be avoided. Live trees 6 inches to 2 inches will be removed by hand crews with chainsaw and all shrubs less than 2 inches in diameter will be removed by tractor and bush hog. The herbaceous understory will be removed by brush hog or string trimmer. To reduce unnatural soundscapes that could possibly harm species of conservation concern, construction of trail and vehicular traffic would occur during a less critical time range from April 1 to June 30, 2012. Vehicular traffic during would occur during dryer times to reduce rutting and any impact of erosion would be negligible. After completion of the project the trail will be allowed to be naturally re-vegetated.

The Nature Conservancy strives for ecological biodiversity on all of its lands and aggressively suppresses introduced vegetation that would be considered "non-native" and "noxious." The site currently is monitored by TNC staff and volunteers, as well as by other natural resource professionals, throughout the year. Any vegetation meeting these criteria found on site would be reported and removed by methods deemed appropriate by TNC and NPS.

#### *Temporary steel tower and cable hoist*

Construction of a temporary tower would serve as an anchor point for a cable hoist running upslope to the Bat Cave opening approximately 93 feet above the Current River. The tower would be placed at a point on the terrace near the river and would be constructed from a range of two following options:

- Construction of a 10 to 20 feet tall steel tower mounted onto a small dozer.
- Construction of a 10 to 20 feet tall steel tower secured in the ground which could easily be removed with minimal ground disturbance.

The number of cable hoists established will be from one to three sections depending on mobility of steel. The first 150 feet section of metal cable hoist would be anchored by a tower at the base of the slope and would be anchored in a tree near the cave opening. With help from foresters from the Missouri Department of Conservation, small canopy limbs would be pruned in a way to prevent any contact with cable and steel material while not harming overall health of trees. The next two possible cable hoists would occur near the opening of the cave on the upland slopes. These cables would be mounted to trees or large rocks or rock walls near the opening and would be 100 to 200 feet in length.

## Finding of No Significant Impact

### Construction of a Temporary Trail and Hoist Location at Bat Cave Shannon County, Missouri

#### Environmentally Preferable Alternative

The environmentally preferable alternative is determined by applying the criteria suggested in NEPA. The Council on Environmental Quality (CEQ) provides direction in its guidance 'Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations (1981)' that "...the environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources."

*Criterion 1 – Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.*

*Criterion 2 – Assure for all generations safe, healthful, productive, and aesthetically and culturally pleasing surroundings.*

*Criterion 3 – Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.*

*Criterion 4 – Preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.*

*Criterion 5 – Achieve a balance between population and resource use that will permit high standards of living and wide sharing of life's amenities.*

*Criterion 6 – Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.*

Using the criteria from Section 101, Alternative A – No action was determined to be the environmentally preferable alternative of those evaluated in this EA, because it has no additional impact to the natural resources for activities that are restricted under the scenic easement.

Although Alternative A – No action, is the environmentally preferred alternative, it does not satisfy the needs and purposes submitted by The Nature Conservancy. In addition, it does not include the beneficial aspects of a new gate for the cave. TNC as the landowner specifically has the right to replace, rebuild or substitute any buildings or structures on the property. As such, since the NPS does not exercise discretion over that replacement activity, there is no NPS requirement for the landowner to analyze the beneficial aspects of the cave gate. The agency has chosen Alternative B because it fulfills the goals outlined in the purpose and need while causing nothing more than minor, short-term adverse impacts to the resources identified for analysis.

#### The Selected Alternative and Significance Criteria

The intensity or severity of impacts resulting from implementation of the Selected Alternative is evaluated below using the ten (10) significance criteria as defined by the Council on Environmental Quality's regulations for implementing NEPA (40 CFR § 1508.27). Resource areas selected for analysis included: riparian vegetation, threatened, endangered, and species of special concern, visual quality, soundscape, and soils.

*1. Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal Agency believes that on balance the effect will be beneficial.*

It was determined that none of the adverse impacts will be significant under the selected alternative (Alternative B). The construction of the temporary trail and hoist will have some short-term minor

## Finding of No Significant Impact

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### Construction of a Temporary Trail and Hoist Location at Bat Cave Shannon County, Missouri

adverse impacts during and immediately after the construction phase for the riparian vegetation, visual quality, soundscape, and soils. It also would result in meeting the need to protect Bat Cave.

*2. The degree to which the proposed action affects public health and safety.*

The project is entirely on private property owned by The Nature Conservancy with public access limited to within 300 feet of the Current River. The temporary trail and tower would not pose a risk to the public.

*3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, wild and scenic rivers, ecologically critical areas, wetlands or floodplains, park lands, and so forth.*

Both the Current River and Jacks Fork River are designated as Outstanding National Resource Waters (ONRW) under Missouri's water quality standards. They are Tier III waters (i.e. they are provided with the highest level of protection by prohibiting the lowering of water quality) with anti-degradation restrictions.

*4. The degree to which the impacts on the quality of the human environment are likely to be highly controversial.*

During the preparation of the environmental assessment, there has been involvement from other agencies, private organizations and other interested individuals. The National Park Service received 3 public comments on the environmental assessment that was opened for public comment from November 23 – December 23, 2011. Two of the comments stated support for the project and one questioned a need for the cave gate. The cave gate was not analyzed since the owner of the property has the explicit right to replace, rebuild or substitute structures on the private property, and does not require approval from the NPS.

No comments from the public challenged the analysis of impacts or suggested information that will result in changes to the analysis, or resulted in the recognition of significant impacts to resources.

*5. Degree to which the potential impacts on the quality of the human environment are highly uncertain or involve unique or unknown risks.*

The proposed activities of the temporary trail and hoist are not unique activities, and the analysis of the impacts would not involve any unique or unknown risks.

*6. Degree to which the action may establish a precedent for future actions with significant effects, or represents a decision in principle about a future consideration.*

Restricted activities on private properties on which the NPS holds a scenic easement interest are clearly identified in the easement language. No changes have been made in the easements since they were acquired and there are no plans to change them in the future. Management decisions are specifically guided by the language in the easements.

*7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.*

This action is not related to any other actions or projects occurring within the park. The issues addressed in the environmental assessment are limited to this site on private property.

## Finding of No Significant Impact

### Construction of a Temporary Trail and Hoist Location at Bat Cave Shannon County, Missouri

8. *The degree to which the action may adversely affect historic districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, or may cause loss or destruction of significant scientific, cultural, or historical resources.*

The scenic easement that the National Park Service acquired for this private property was for the preservation of the scenic value of the area. The easement places restrictions on the landowner to protect the scenic value, and no other values are mentioned in the easement. Using solicitor advice and opinion as our guidance, the National Park Service does not exercise any discretion over the cultural resources of the property and cannot require the landowner to conduct an assessment of these resources. However, the Missouri Department of Conservation is a partner of this project, and has been in consultation the Missouri Department of Natural Resources State Historic Preservation Office to ensure that the cultural resources are considered.

9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the endangered Species Act of 1973.*

On June 22, 2011 a cave gating grant package was sent from the Missouri Department of Conservation (MDC) to the U.S. Fish and Wildlife Service (USFWS). This package included the project proposal, USFWS Region 3, Wildlife and Sport Fish Restoration Division Federal Assistant Document checklist, Region 3 Federal Aid Transmittal Form, Application for Federal Assistance, and a NEPA compliance checklist. On August 4, 2011 an email was sent from Bill Elliot of MDC, to Lisa Mandell of the USFWS on the acknowledgement that all section 7 (Threatened and Endangered Species) had been adequately covered, this email was confirmed by Lisa Mandell. On August 5, 2011 the Missouri Department of Conservation was notified that the cave gating grant had been accepted and approval for gate construction and temporary trail.

A copy of the *Environmental Assessment for Construction of a Temporary Trail and Hoist Location at Bat Cave, Shannon County, Missouri* was sent to the USFWS Field Officer on November 23, 2011 with a request for any additional comments. A response was received dated December 22, 2011, stating that the action will not adversely affect any priority fish and wildlife resources.

10. *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.*

The Selected Alternative is not thought to violate any environmental protection laws or regulations. Completion of the following consultations has solidified this conclusion.

#### Section 7 – Endangered Species Act Consultation

A copy of the *Environmental Assessment for Construction of a Temporary Trail and Hoist Location at Bat Cave, Shannon County, Missouri* was sent to the USFWS Field Officer on November 23, 2011 with a request for any additional comments. A response was received dated December 22, 2011, stating that the action will not adversely affect any priority fish and wildlife resources.

#### **Public Involvement**

A 30-day public comment period was held for the *Environmental Assessment for Construction of a Temporary Trail and Hoist Location at Bat Cave, Shannon County, Missouri* from November 23 – December 23, 2011.

## **Finding of No Significant Impact**

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### **Construction of a Temporary Trail and Hoist Location at Bat Cave Shannon County, Missouri**

A news release was sent out notifying the general public of the availability of the EA for review, and the document was posted on Planning, Environment and Public Comment (PEPC) website. The news release also instructed recipients how to comment on the EA through the PEPC website or in writing to the Superintendent at ONSR. Three comments were received in response to the EA. Two of the three were supportive of the selected alternative. None of the comments challenged the analysis of the impacts or were significant enough to make any changes to the selection.

#### **Conclusion**

The agency preferred alternative is to install a temporary trail from the west boundary of Current River State Park to a point on the riparian terrace on the property of The Nature Conservancy where a temporary tower would be constructed. Also to construct and install a temporary steel tower and cable hoist that would serve as an anchor point for moving cave gate building materials from the river bottom terrace to the cave gate opening located approximately 100 ft in elevation above the Current River.

The agency has chosen this alternative because it fulfills the goals outlined in the purpose and need while mitigating cumulative effects of human disturbance and disease on threatened and endangered species that utilized the cave. Issues having a strong impact on the decision making process were the fact that this process, while having some temporary affects to the riparian vegetation, are outweighed by the importance of protection of threatened and endangered species that occur in the area.

**Finding of No Significant Impact**

**Construction of a Temporary Trail and Hoist Location at Bat Cave  
Shannon County, Missouri**

**Finding of No Significant Impact and No Impairment**

Based on the analysis contained in the environmental assessment, the Selected Alternative for the construction of a temporary trail from the west boundary of Current River State Park to a point on the riparian terrace on the property of The Nature Conservancy where a temporary tower would be constructed that would serve as an anchor point for moving cave gate building materials from the river bottom terrace to the cave gate opening, will not have significant impacts on the human environment either by itself or considering cumulative impacts. There are no significant impacts on public health, public safety, threatened and endangered species, sites, or districts listed in or eligible for listing in the NRHP, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified.

Implementation of the action will not violate any Federal, State, or local environmental protection law. The Selected Alternative supports the enabling legislation establishing the Current River as a National Scenic Riverway under Public Law 88-492 with the intended purpose of "conserving and interpreting unique scenic and other natural values and objects of historic interest... and provisions for use and enjoyment of the outdoor recreation resources." Furthermore, the Selected Alternative chosen for implementation will not impair park resources or values and will not violate the NPS Organic Act. Accordingly, the requirements of the National Environmental Policy Act, regulations promulgated by the President's Council on Environmental Quality, and provisions of National Park Service Director's Order-12 and Handbook (Conservation Planning and Environmental Impact Analysis and Decision-Making) have been fulfilled.

Based on the foregoing, it has been determined that an environmental impact statement is not required for this project and thus will not be prepared for implementation of the Selected Alternative.

Recommended:

  
\_\_\_\_\_  
Acting Superintendent, Ozark National Scenic Riverways

1/25/2012  
Date

Approved:

*for*   
\_\_\_\_\_  
Regional Director, Midwest Region

2-7-12  
Date