

**Partners for Fish and Wildlife Program and Coastal Program
2008
COMPETITIVE FUNDING PROPOSAL**

Section A. OVERVIEW

Proposal Title: Trout Cave Bat Gate

Project Location: (County, State/Watershed): Pendleton, West Virginia/Chesapeake Bay

Project Officer & Duty Station: John Schmidt/Barbara Douglas, WVFO

HabITS Database Action: (X) Habitat Improvement or () Technical Assistance

Project Type: **(X) Habitat restoration/enhancement**, () Habitat creation, () Habitat protection, () Fish Passage, () Instream, () Invasive Species, () Inventory or Survey, () Project Design, **(X) Other: Endangered Species Recovery**_____

Land Ownership: ___Federal ___State ___X___Private (non Federal, non State)

Describe Project Activity in 200 words or less

Trout Cave is privately owned by the National Speleological Society (NSS). The cave is heavily used by recreational cavers, including large scout and school groups. Historic accounts suggest that Trout Cave once supported up to 1,000 Indiana bats. However, previous disturbances to the cave reduced populations to around 10-20 bats. Since the cave was purchased by the NSS, hibernating populations of the Indiana bat within the cave have increased to 158 bats, and it is now the fourth largest hibernacula in the State. Although the Indiana bats now occupy a small side passage, historically these bats hibernated in the main passage of the cave where temperatures are more suitable for this species. The Virginia big-eared bat also uses the cave during the fall swarming period. Disturbances in caves have been identified as a primary threat to recovery of these two endangered species.

This project would construct bat-friendly gates at the cave's two entrances that would restrict human access to the cave during critical periods for bats and hopefully allow the populations to continue to expand. If numbers can be recovered to previous levels, Trout Cave would become the second largest Indiana bat hibernacula in West Virginia. The gates would be constructed as part of a cooperative effort between the NSS, the West Virginia Division of Natural Resources (WVDNR), Bat Conservation International (BCI), and the Service's Partners for Fish and Wildlife and Endangered Species Programs. This project provides an excellent opportunity for education and outreach regarding endangered species and to demonstrate public/private cooperation as well as outstanding cave management techniques.

Amount of FWS Funds Requested: \$22,000

Total Project Cost: \$35,500 (not including FWS salary)

Matching Funds: \$13,500

Section B. SIGNIFICANCE TO FEDERAL TRUST RESOURCES

(1) Important Geographic Areas

The project occurs within the Upper Potomac River Focal Unit as identified in the Service’s Strategic Plan Fiscal Year 2007-2011 Region 5, Partners for Fish and Wildlife Program.

(2) Priority Trust Species and Conservation Plans

2(c) Endangered Species (0-20 points):

Species	Status (candidate, T or E, Brink species)	Project benefits to habitat and species	Does the project directly contribute to recovery plan task or recovery need? List task or goal.
Indiana bat	Endangered	See below	<p>This project would implement the following recovery actions identified in the 2007 Draft Indiana Bat Recovery Plan:</p> <p>1.1.1.2.9 Implement HMPs and associated remedial measures at privately owned P2 hibernacula recognized as high priority for alleviating disturbance where landowner cooperation is obtained (Priority 2).</p> <p>1.1.4.5 Coordinate with private landowners and encourage voluntary enrollment into conservation incentive programs (Priority 2).</p> <p>4.2.3 Seek opportunities to raise awareness of the Indiana bat’s special characteristics; foster a sense of appreciation for the bat, its habitat, and the unique life history of bats in general (Priority 3).</p>
Virginia big-eared bat	Endangered	See below	<p>The project would implement the following recovery actions from the Virginia Big-eared Bat Recovery Plan:</p> <p>3.3 Study and manage cave gating (Priority 1)</p> <p>6. Develop and maintain public support for species protection including:</p> <ul style="list-style-type: none">* Action 6.1 landowner support (Priority 1);* Action 6.2 public support

			* (Priority 2); and Action 6.3 caver support (Priority 3)
--	--	--	--

Both the Indiana bat and the Virginia big-eared bat are highly sensitive to human disturbances in their cave habitats. If the bats are aroused during the hibernation period it increases their energy consumption and results in reduced fitness and survival. Excessive disturbances can cause the bats to abandon the cave and move to other less suitable areas. At the present time, Indiana bats hibernating in the cave appear to be using an area that is less than optimal due to disturbance in their historic hibernation sites within this cave.

The West Virginia Wildlife Conservation Action Plan identifies both the Indiana bat and the Virginia big-eared bat as Priority 1 Species in Greatest Need of Conservation. The plan lists “working with landowners to protect important maternity/hibernacula by placing gates or fences at cave entrances for permanent or seasonal cave closures” as an important conservation action for these bat species.

Trout Cave is classified as a Priority 2 Hibernacula in the 2006 Draft Indiana bat Recovery Plan. These caves contribute to the recovery and long-term conservation of the Indiana bat. There are no other Priority 2 caves and only one Priority 1 cave identified within the State of West Virginia. Because access to the Priority 1 cave in West Virginia has already been restricted, alleviating winter disturbances to Trout Cave is one of the highest priority outstanding recovery actions within the State. In addition, because over 85% of the Indiana bats hibernating in West Virginia use the state’s only Priority 1 hibernaculum, it is important that other hibernacula in the area be protected to provide an alternate hibernation site should something happen to the Priority 1 hibernaculum.

Trout Cave is part of the NSS’s John Guilday Caves Nature Preserve. This area is routinely used to educate school and scout groups about responsible recreational caving techniques, as well as cave conservation and management issues. It is anticipated that this use would still continue during the portions of the year that endangered bats would not be present in the cave. As a result, this project provides an excellent opportunity to provide information about the Indiana and Virginia big-eared bat biology and recovery needs.

Section C. SUPPORTING PROJECT INFORMATION (0-20 points)

A. Outline and describe proposed budget and partnering contribution.

PARTNERS	CASH	IN-KIND
NSS	\$2,000	\$2,400
WVDNR	\$3,000	\$3,600
BCI	\$2,500	
TOTALS	\$7,500	\$6,000
		\$13,500

The total project cost is estimated to be \$35,500. Gates would be constructed at the cave’s two entrances which measure 12’ x 29’ and 7 x 19’. Because the cave entrances are located up a steep slope that is not accessible to mechanized vehicles, moving materials to the site will be labor

intensive. Extreme care will also need to be taken to avoid erosion of the slope and to re-vegetate any disturbed areas.

Tasks include buying materials, transporting the material to the project site, and on-site construction/installation of the gates. The NSS will provide volunteer labor to assist with hauling materials to the cave entrances. WVDNR will supply in-kind services by providing staff time of professional biologists for logistical support, planning, and assistance with gate construction (estimated at 18 biologist/days) as well as vehicles and mileage for transportation of equipment and materials to and from the site. Requested funds will be used for materials and equipment such as steel, welding rods, etc (\$16,000) and to hire a contractor with specialized experience with bat-friendly gates to construct the gate and coordinate the effort (\$6,000).

B. Project status: Current Project Status (at time of RFP)

Habitat Improvement Project Status				
Partnerships Established (Y/N)	Feasibility and design completed (Y/N)	Permitting completed (Y/N)	Implementation completed (Y/N)	Monitoring and feedback completed (Y/N)
Yes	Yes	Not Needed	No	No

C. Multiyear Proposal:

Prior Years Funding	HabITS project #(if applicable)	Year 1 funding request	Year 2 funding request	Year 3 funding request

This project will be completed in a single funding year.