

2009 State Wildlife Grant Preproposal

Project Title: Implementation of State Wildlife Action Plan Strategies on Hobbs State Park-Conservation Area for CWCS Species of Concern in Oak Woodlands including Calcareous Glade Habitats.

Project Summary: This project seeks to develop a collaborative multi-partner prescribed fire coalition for the restoration of oak woodland and calcareous glade habitats structure and species composition at the Hobbs State Park –Conservation Area (HSPCA) in the Interior Highlands of the Ozark Plateau Ecoregion by implementing prescribed fire and conducting ecological monitoring for Arkansas Wildlife Action Plan animal Species of Greatest Conservation Need (SGCN) in order to measure progress toward desired ecological conditions.

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Budget Summary: Total Amount of Project Cost: \$36,900
Total Amount of SWG Requested: \$18,450 (50%)
Matching Funds from TNC and partners: \$18,450 (50%)

FUNDING PRIORITY ADDRESSED BY PREPROPOSAL

This project addresses a priority implementation action listed in Appendix A of the 2009 SWG Request for Proposals (RFP): 1) Habitat Management to maintain or increase quality oak woodlands including calcareous glades located throughout the project area. This project will accelerate implementation of the Hobbs State Park – Conservation Area (HSPCA) Fire Management Plan to restore oak woodlands and calcareous glades using collaborative multi-partner prescribed fire operations and monitoring. In addition, this project will begin reintroducing fire to fire-suppressed habitats to benefit Species of Greatest Conservation Need.

ECOREGION WHERE PROJECT WILL BE CONDUCTED

Restoration activities will be conducted in the Interior Highlands of the Ozark Plateau Ecoregion, within the Hobbs State Park- Conservation Area in Benton, Carroll and Madison Counties of Arkansas (Figure 1).

The Hobbs State Park-Conservation Area (HSPCA) covers 11,764 acres. This large tract of Ozark landscape consists of plateaus, ridges, valleys and streams with upland forests of pine, oak and hickory. In addition, numerous caves, springs, and karst features occur within the park. HSPCA is jointly managed by Arkansas State Parks, the Arkansas Natural Heritage Commission, and the Arkansas Game and Fish Commission.

PROJECT METHODS

Project partners will work collaboratively to implement the HSPCA 10 Year Fire Management Plan that was developed in 2002 and only partially implemented to date. This partnership will implement two cooperative multi-partner prescribed burns totaling 1,279 acres, conduct Post Burn Evaluations for each burn and conduct photo point monitoring pre/post burn at permanent macroplot locations with each burn unit. This project will focus on restoring oak woodlands and calcareous glade habitats.

Examination of aerial photos and General Land Office records indicate that the historical woodlands were much more open than today in the Hobbs State Park – Conservation Area. Prior to ownership most of the area's woodlands and glade communities were fire excluded for decades. This conversion from open to closed canopy negatively alters species composition, and adversely impacts herbaceous-layer plants and dependent animals. Hobbs State Park-Conservation Area began reintroducing fire to this area in spring 2002.

Measureable Outcomes

Measurable outcomes from this collaborative fire management partnership will be the continued implementation of the HSPCA Fire Management Plan to rapidly facilitate the promotion of suitable habitat for species-at-risk. The species-at-risk affected by this proposal occur in open and dry vegetation types typical of Arkansas woodland, savannas, prairies, and calcareous glades in the Interior Highlands of the Ozark Plateau Ecoregion. These species are dependent on open woodland structure and herbaceous understory habitat maintained by periodic fire during their life cycles. As a result of fire suppression,

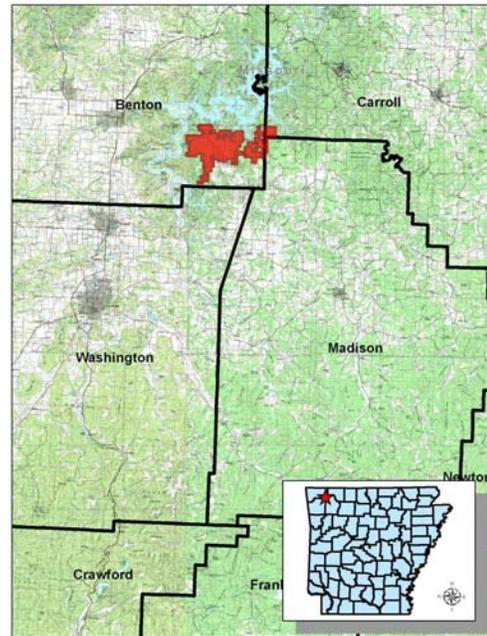


Figure 1. Hobbs State Park-Conservation Area.

most of this type of habitat has become increasingly limited due to densification of vegetation. In addition, most of the calcareous glade habitat has been encroached by surrounding vegetation including eastern red cedar. This current condition plays a large part in the loss or degradation of habitat suitable for oak woodland and calcareous glade dependent species-at-risk in this area (Table 1).

Table 1. Targeted Species of Concern in the Hobbs State Park-Conservation Area. (CWCS Database).

Class	Genus	Scientific_Name	Common Name	Rank
Insecta	<i>Speyeria</i>	<i>diana</i>	Diana fritillary	G3S2
Reptilia	<i>Eumeces</i>	<i>obsoletus</i>	Great Plains skink	G5S1
Reptilia	<i>Ophisaurus</i>	<i>attenuatus</i>	Western slender glass lizard	G5S3
Reptilia	<i>Sonora</i>	<i>semiannulata</i>	ground snake	G5SH
Reptilia	<i>Terrapene</i>	<i>ornata</i>	ornate box turtle	G5S2
Reptilia	<i>Crotaphytus</i>	<i>collaris</i>	Eastern collared lizard	G5S3
Amphibia	<i>Rana</i>	<i>sylvatica</i>	wood frog	G5S3
Aves	<i>Aimophila</i>	<i>aestivalis</i>	Bachman's Sparrow	G3S3
Aves	<i>Thryomanes</i>	<i>bewickii</i>	Bewick's Wren	G5S2
Aves	<i>Lanis</i>	<i>ludovicianus</i>	Loggerhead Shrike	G4S3
Aves	<i>Pipilo</i>	<i>erythrophthalmus</i>	Eastern Towhee	G5S3
Aves	<i>Colinus</i>	<i>virginianus</i>	Northern Bobwhite	G5S5

To restore the open habitats that species' identified by the Comprehensive Wildlife Conservation Strategies (CWCS) utilize requires establishing a suitable fire regime that promotes 'open' oak woodlands by reducing native and non-native vegetation encroachment in oak woodlands and calcareous glade habitat types. This project has selected 1,279 acres for prescribed fire and monitoring. Measurable actions include:

- Write burn plans for each burn unit.
- Install fire lines around burn units.
- Implement prescribed burns on 1,279 acres.
- Complete post-fire effects monitoring and After Action Reviews (AARs).
- Conduct photopoint monitoring before and after burns.

TNC's Arkansas Field Office utilizes a fire effects monitoring procedure to track attainment of fire. This monitoring includes tracking burn acreage and effectiveness in reaching fire management objectives. Fire severity is calculated from point transects through the burn unit. Monitoring information includes substrate consumption, understory vegetation consumption, scorch height, crown scorch percent, char height, and char degree.

Existing Resources and Partnerships

This project was selected because of the current collaborative fire management partnerships currently in place at HSPCA. Since 2002, park staff, Arkansas Forestry Commission, The Nature Conservancy and various volunteer fire departments have been continuing to implement the current fire management plan developed by HSPCA. This project seeks to facilitate the momentum within this diverse fire management coalition and will implement the current fire management plan to increase prescribed fire training opportunities for all partners involved.

This project aims to take advantage of the unique resources each partner brings to the table. The partnership that has been established will seek to develop new partners and increase current fire management expertise that will increase prescribed burning efforts, post burn evaluations and monitoring.

If funded, the framework for developing a fully functional fire management program for HSPCA will be established.

Proposed Budget

The estimated budget for this project is outlined in Table 2, and includes all divisions as requested by the RFP. All sources have been compiled for all partners. Salary/Benefits include all staff time. Operating expenses includes travel reimbursements and supply value drip torch fuel.

Table 2. Proposed budget allocation as outlined in the 2009 SWG RFP.

Category	Total	Partnership (Match)	SWG
Salary / Benefits	\$27,000	\$15,000	\$12,000
Operating Expenses	\$3,000	0	\$3,000
Capital Expenses	0	0.00	0
Subtotal	\$30,000	\$15,000	\$15,000
Indirect Costs (23.28%)*	\$6,900	\$3,450	\$3,450
<i>Totals</i>	<i>\$36,900</i>	<i>\$18,450</i>	<i>\$18,450</i>

***Indirect Costs:** The Nature Conservancy has a federal negotiated indirect cost rate (NICRA) of 23%.

Qualifications of Partnership

Mark Clippinger is the Hobbs State Park-Conservation Area Superintendent. Mark has over 20 years of experience at the park. Mark has been the active burn boss for the park for 5 years and continues to oversee day to day operation of the park.

Fred Sutton is the Hobbs State Park-Conservation Area Assistant Superintendent. Fred has been with the park for over 6 years and oversees the fire management plan and in charge of overseeing the fire program at the park. Fred also acts as the park burn boss.

McRee Anderson is the Interior Highlands Fire Restoration Project Manager for the Arkansas Chapter of The Nature Conservancy. McRee is currently a National Wildfire Coordinating Group (NWCG) certified RXB2 Burn Boss. McRee co-leads The Nature Conservancy's Prescribed Fire Program in the state and has been involved in fire management for 8 years.