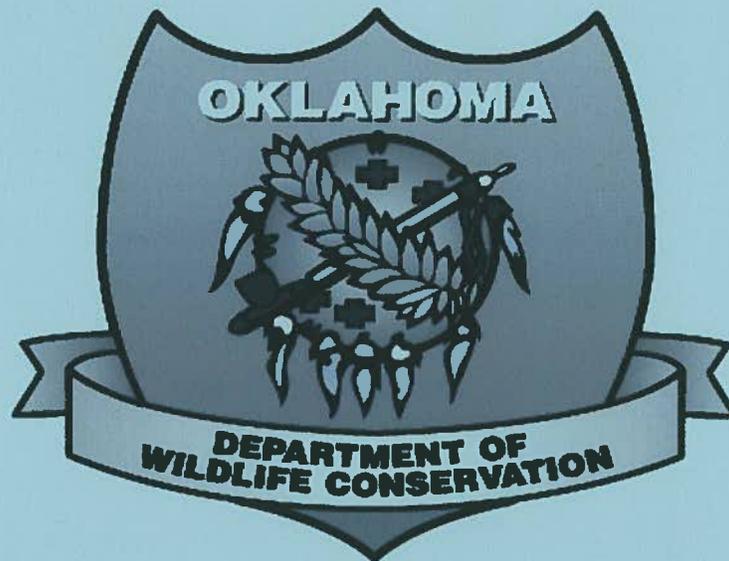


**FINAL PERFORMANCE REPORT**



**FEDERAL AID GRANT NO. F09AP00237 (E-72-RL-1)**

**AN ECOREGION APPROACH FOR RECOVERY AND  
PROTECTION OF KARST DEPENDENT FEDERALLY LISTED  
SPECIES**

**OKLAHOMA DEPARTMENT OF WILDLIFE CONSERVATION**

**July 1, 2009 through June 30, 2013**

## FINAL PERFORMANCE REPORT

**STATE:** Oklahoma

**GRANT NUMBER:** F09AP00237  
(E-72-RL-1)

**GRANT PROGRAM:** Endangered Species Act Section 6 Recovery Land Acquisition

**GRANT TITLE:** An Ecoregion Approach for Recovery and Protection of Karst Dependent Federally Listed Species

**GRANT PERIOD:** July 1, 2009 – June 30, 2013

**PROJECT LEADER:** Mark Howery

**Abstract:** The Oklahoma Department of Wildlife Conservation (ODWC), working as part of a joint project with the Arkansas Department of Game and Fish, sought to conserve habitat, through perpetual conservation easements, to assist the recovery of three federally-listed species within the Springfield Plateau of the Ozark Highlands. In Oklahoma, properties within the Spavinaw Creek watershed were identified as qualified to meet project objectives (conserving habitat for the federally endangered Gray Bat (*Myotis grisescens*) and the federally threatened Ozark Cavefish (*Amblyopsis rosae*). ODWC diligently pursued purchasing conservation easements on these properties, but, ultimately, no conservation easements were acquired.

### A. OBJECTIVES:

1. Increase protection of gray bat maternity caves, roost sites, foraging habitat, and movement corridors adjacent to and near Ozark Plateau NWR and Logan Cave NWR.
2. Increase protection of Ozark big-eared bat caves adjacent to and/or near the Ozark Plateau NWR.
3. Increase protection of Benton cave crayfish by better protecting ground water aquifers, cave recharge areas, and maintaining subsurface and surface linkages.
4. Increase protection of Ozark cavefish by better protecting ground water aquifers, cave recharge areas, and maintaining subsurface and surface linkages.
5. Increase protection of cave, groundwater aquifer, and recharge areas important to maintaining habitat for the species of concern Oklahoma cave crayfish to reduce any possible future need for listing as federally threatened or endangered.

### B. SUMMARY:

#### NEED:

Because of their federally threatened (Ozark Cavefish (*Amblyopsis rosae*)) or endangered (Gray Bat (*Myotis grisescens*) and Benton Cave Crayfish (*Cambarus aculabrum*)) status, it is

crucial that opportunities to conserve these species and their habitat be identified and implemented.

## **RESULTS / DISCUSSION:**

This was a multi-state project between the states of Oklahoma and Arkansas to conserve habitat, through perpetual conservation easements, to assist the recovery of three federally-listed species within the Springfield Plateau of the Ozark Highlands. The conservation easements pursued in Oklahoma would benefit the federally endangered Gray Bat (*Myotis grisescens*) and the federally threatened Ozark Cavefish (*Amblyopsis rosae*). The region targeted in Arkansas would benefit the sole, known population of the federally endangered Benton Cave Crayfish (*Cambarus aculabrum*) as well as the threatened Ozark Cavefish. Conservation easements on these sites would preclude human development of the existing habitat, especially riparian forest and upland forest habitat. This action would protect the quality of ground and surface water for the benefit of the aquatic species, conserve riparian foraging habitat for the Gray Bat and provide an undeveloped buffer around caves that are known to support federally listed species. This Report specifically addresses the Oklahoma portion of this multi-state effort.

Throughout the history of this grant, the Oklahoma portion of this project focused on the Spavinaw Creek watershed upstream from Eucha Reservoir; however the specific tracts of land on which we pursued conservation easements changed over time, and ultimately, no conservation easement was obtained. Initially, we targeted the acquisition of perpetual conservation easements on three tracts of high-quality oak/hickory forest and riparian forest in the Spavinaw Creek watershed three to six miles upstream from Lake Eucha. These easements were to encompass three tracts totaling 974 acres that were owned by the Howard, Bashaw and Higgins families (Figure 1). The conservation easements were to be held jointly by the Oklahoma Department of Wildlife Conservation and a non-profit, non-governmental land trust known as Land Legacy. However, each of the three land owners declined our offer to enter into a conservation easement with them. An alternate site was proposed in the summer of 2010 that encompassed approximately 400 acres of upland and riparian forest along Spavinaw Creek on the Arkansas/Oklahoma state line. These acres were part of a 509-acre tract that had recently been purchased by a sportsman's club. However, a disagreement regarding the management practices of the sportsman's club prevented us from establishing a conservation easement.

A second alternative location was then proposed. This alternative would have placed a perpetual conservation easement on approximately 400 acres of upland oak-hickory forest adjacent to the Looney Unit of the Ozark Plateau National Wildlife Refuge. This tract is owned by the David Hamby family and it lies over the recharge area for the January-Stansberry Cave whose entrance is on the Refuge. Although the Hamby tract is not as large as the combined Howard, Bashaw and Higgins tracts, it appears to have a greater value to the threatened Ozark Cavefish and the endangered Gray Bat. The Hamby tract is adjacent to the Looney Unit of the Ozark Plateau NWR; therefore, it helps to buffer the refuge and the January-Stansberry Cave from human disturbance and development. Additionally, it overlies more than half of the mapped passageway of the January-Stansberry Cave and encompasses nearly half of the cave's recharge zone (Figure 2). The January-Stansberry Cave is one of only ten caves in which the federally threatened Ozark Cavefish has been found in Oklahoma, and is one of only three caves

Figure 1. Map Depicting the Higgins, Howard and Bashaw Tracts in the Spavinaw Creek Watershed.

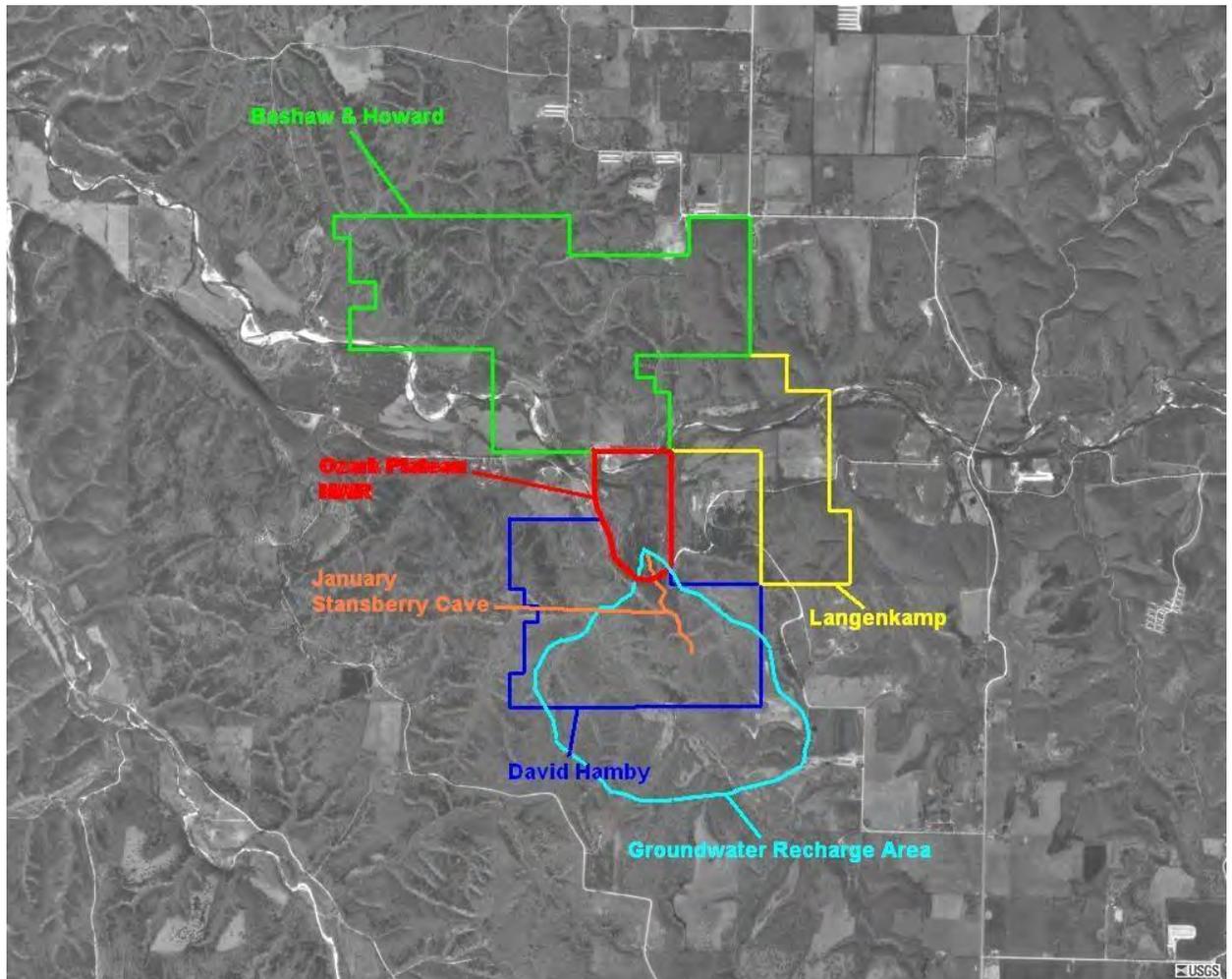


in which the state-endangered Oklahoma Cave Crayfish (*Cambarus tartarus*) has been found. The cave also is used as an alternate maternity site for a portion of the endangered Gray Bat population in Oklahoma. Acquisition of a conservation easement on the Hamby property would conserve foraging habitat for Gray Bats, provided an undeveloped buffer of native habitat on the south side of the Looney Unit of the Ozark Plateau NWR, and would protect water quality in the aquifer that is connected to the January-Stansberry Cave. We prepared and submitted a grant modification to amend the E-72-RL grant to replace the previously considered properties with the Hamby Tract. We met with the Hamby family to discuss the conservation easement and they expressed their willingness to work with us to develop a conservation easement agreement.

Additionally, we submitted a request for a one-year, no-cost grant agreement to extent the grant for 12 months to provide sufficient time to develop a conservation easement agreement and close on its acquisition. This request was approved and the grant was amended to extend its ending date to June 30, 2013.

It was mutually agreed between ODWC and Mr. Hamby that the value of a conservation easement would be 50% of the appraised value of the property.

Figure 2. Map of the proposed conservation easement boundary on the Hamby Tract, Delaware County, Oklahoma. The map shows the relationship of the Hamby Tract (shown in dark blue) to the Ozark Plateau National Wildlife Refuge (shown in red) and the ground water recharge area for the January/Stansberry Cave (shown in light blue).



We contracted with an appraisal company to prepare a “Yellow Book” Appraisal of the property value of the Hamby tract, and also contracted with a separate Appraisal company to conduct a desk review of the Appraisal to verify compliance with Yellow Book guidelines. Once, however, the appraisal was completed and the appraised value determined, Mr. Hamby determined that the actual amount offered was not enough for him to agree to convey the easement. By this time, the end date of the grant was near enough that the time constraints precluded our ability to locate another potential landowner, and go through the appraisal process again, and complete the easement purchase before the grant expired.

**C. SIGNIFICANT DEVIATIONS:**

As mentioned, and for the reasons above, ultimately, no conservation easements were acquired in Oklahoma.

**D. COSTS:**

**E. PREPARED BY:** Mark Howery and Russ Horton  
Wildlife Diversity Section  
Oklahoma Dept. of Wildlife Conservation

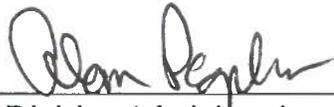
**F. DATE:** 9 July 2013

**G. APPROVED BY:**



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Andrea K. Crews, Federal Aid Coordinator  
Oklahoma Department of Wildlife Conservation



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Wildlife Division Administration  
Oklahoma Department of Wildlife Conservation

**Wildlife and Sport Fish Restoration Program  
Summary of Land Costs**

<b>State :</b> Oklahoma
<b>Oklahoma Department of Wildlife Conservation</b>
<b>Subgrantee (if applicable):</b>
<b>County(ies):</b> Delaware
<b>Grant No.:</b> F09AP00237 (E-72-RL-1)
<b>Grant Title:</b> An ecoregion approach for the recovery and protection of Karst dependent federally listed species
<b>Grant Period:</b> July 1, 2009 - June 30, 2013

<b>Grant Funding Approved</b>	<b>Federal</b>	<b>State / Third Party</b>	<b>Total</b>
<b>Estimated Costs</b>	\$ 569,790.00	\$ 63,310.00	\$ 633,100.00
<b>Cost Share Percentage</b>	90.00%	10.00%	100%

<b>Acquisition Name:</b>
<b>Grantor:</b>
<b>Date Acquired:</b>
<b>Acreage:</b>
<b>Appraised Value:</b>

<b>Acquisition Costs (Actual)</b>		<b>Notes Re: Acquisition Costs</b>
<b>Purchase Price</b>		
<b>Appraisal Costs</b>	\$ 5,250.00	
<b>Relocation Costs</b>		
<b>Survey Costs</b>		
<b>Closing Costs</b>		
<b>Salaries, Per Diem &amp; Associated Costs</b>		
<b>In-Kind Match Value</b>		
<b>Miscellaneous (including Lands Donated Value)</b>		

<b>TOTAL COST</b>	\$ 5,250.00	<p align="center"><b>Instructions</b></p> <p>* If Total Cost &lt; Total Grant Funding Estimate then fill out actual costs/reimbursement section below. If Total Cost = Total Grant Funding Estimate then same amount. If Total Cost &gt; Total Grant Funding Estimate then place amount from E19 here.</p> <p>** When Total Cost (actual) &gt; Total Grant Funding Estimate then place difference here.</p>
<b>Total Federal Reimbursement (Stewardship Investment)*</b>	\$ -	
<b>Excess Match**</b>		

<b>Final Grant Costs</b>	<b>Federal</b>	<b>State / Third Party</b>	<b>Total</b>
<b>Cost Share Percentage</b>	90.00%	10.00%	100%
<b>Actual Costs/Reimbursement</b>	\$ 4,725.00	\$ 525.00	\$ 5,250.00

**Comments:** \$565,065.00 Federal dollars will be deobligated and returned to the funding program.