



## OKLAHOMA

*“I really appreciate the Partners for Fish and Wildlife Program. I could not have accomplished these goals without the assistance of the U.S. Fish and Wildlife Service. Thank you so very much.”*

-- Chuck Hatch, Southcentral Oklahoma cattle rancher

Mr. Hatch is one of the hundreds of landowners in Oklahoma that have “Partnered” with the U.S. Fish and Wildlife Service in restoring fish and wildlife habitat on private lands.

B.G. Mercer who restored 10 acres of wetlands on his Creek County farm, made a statement that has been echoed by many landowners who have worked with the Service. *“This is a program that works well – Thanks.”*

### Introduction and General Description

The U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program was initiated in Oklahoma in 1990. The Partners Program provides technical and financial assistance for the restoration and enhancement of fish and wildlife habitat on private lands, in cooperation with local governments and other entities including educational institutions.

Initially the program targeted wetlands for restoration and enhancement work. The success of this landowner friendly program encouraged the Partners Program to expand into broader trust resource habitats.



**Wetland development**

### Habitats of Special Concern

Oklahoma's fish and wildlife habitat is very diverse. The habitats of greatest concern in Oklahoma in terms of Federal trust resources include floodplain wetlands, shallow water wetlands, native grasslands, upland forests, and caves. Partner's projects have benefitted all of these habitats, including constructing gates on endangered bat caves on private lands to limit human disturbance.

### Threats

Since the land runs of the late 1800's, Oklahoma's vast prairies, wetlands, streams, and forests have been diminished or degraded by development and other human activities. Less than 15 percent of the original bottomland hardwoods remain today in scattered tracts in eastern Oklahoma. Over 70 percent of our original wetlands have been drained or filled. Dam construction and stream channelization also have contributed to wetland loss. Nearly 70 percent of short and tall



**Bat cave gate**

grass prairies have been lost or degraded due to agricultural development and fire suppression.

In addition, much of the native pine and hardwood forests of eastern Oklahoma has been lost or fragmented due to agricultural activities, timber harvest and conversion to pine monocultures.

The loss and alteration of these ecosystems have negatively affected many fish and wildlife species to the point of Federal listing. Twenty of Oklahoma's species are federally-listed as threatened or endangered and an additional five are state-listed as

threatened or endangered. Five species are candidates for Federal listing and 78 are listed in Oklahoma as species of special concern.

Ninety-five percent of the land in Oklahoma is under private ownership. The landowner friendly Partners for Fish and Wildlife Program is the ideal program to enhance, restore and protect fish and wildlife habitat on private lands for a broad array of species.

## **Conservation Strategies**

### ***Wetlands***

Wetland habitat restoration, enhancement and creation on private lands has been a high priority for the Partners Program. Wetlands in Oklahoma provide important migrating, wintering, and breeding habitat for a variety of wildlife species, and are valuable for improving water quality, recharging groundwater supplies, and retarding soil erosion and flood damage. Restoring the hydrology of formerly drained or degraded wetlands has been the focus of most restoration projects.

The cost of wetland restoration averages between \$100-\$300 per acre.

### ***Streambank, Streambed and Riparian Areas***

Sediment is one of the chief pollutants of stream systems in Oklahoma. Changes in land use, including increased pasture clearing, heavy grazing pressure, and other agricultural and development activities have all

contributed to high stream sediment loads. These impacts affect fish, mussel, amphibian, and macroinvertebrate productivity. Streambank restoration involves grading eroding banks, stabilizing bare soil with erosion control mats and anchors, planting vegetation, and limiting livestock access. Streambed restoration projects have included removal of concrete crossings that block fish passage and installation of box-type structures to improve fish access to upstream habitat.

Costs for stream bank restoration are approximately \$40 per foot. Fish passage improvements range from \$5,000 to \$22,000 for each crossing.

Fencing riparian habitat is a very cost effective technique for protecting this habitat type. The cost for fencing is approximately \$1.00 per foot.

### ***Grasslands***



**Streambank restoration**

Native grasslands provide essential habitat for many migrating, wintering and nesting bird species. Only 30 percent of Oklahoma's original prairies remain today.

The costs associated with grassland restoration include: reseeding at \$56 per acre, prescribe burning at \$4 per acre, and

installation of grazing systems that allow a profitable yet wildlife friendly use of the land at \$4 to \$10 per acre.



**Native grass restoration**



**Using prescribed fire to improve native prairies.**

## *Invasive Species*

Eastern red cedar and saltcedar have increased dramatically in Oklahoma. The invasion of red cedar into the native upland plant communities changes habitat structure and composition which adversely affects native wildlife species. Many bird species, such as prairie chickens, turkeys and the endangered black-capped vireo have been negatively affected by this invasion.

Nearly all riverine and riparian habitats of western Oklahoma have been invaded by saltcedar. This plant out competes most of the native wetland plants that are important to wildlife species. Saltcedar also impacts the water levels in western streams and rivers due to the large amount of water the plants use each day. Cost for invasive species projects have ranged from \$40 - \$60/acre.

## *Outdoor Classrooms*

Since 1993, the Partners for Fish and Wildlife Program has been involved in developing Outdoor Environmental Classroom projects throughout Oklahoma. Seventy-five Outdoor Environmental Classrooms, with an emphasis on wetlands and endangered and threatened ecosystems, have been completed or are under development in Oklahoma. Public interest and awareness of the environment, especially wetlands, is a growing human dimension issue. To successfully and appropriately educate



**Outdoor classroom**



**Environmental education**

young people on these resource issues, a "hands on," proactive and interactive Outdoor Classroom provides the ideal structured environment for learning. These projects simultaneously provide long-term educational opportunity, high value fish and wildlife habitat and help build understanding and support for conservation of our Nation's natural resources.

The Partners Program provides \$5,000 per Outdoor Classroom project, which is used to leverage funds with many other sources. The total cost for these projects averages nearly \$30,000 each.



**Nature studies**

---

## Partners

---

Natural Resources Conservation Service  
National Fish and Wildlife Foundation  
U. S. Army Corps of Engineers  
Tinker Air Force Base  
Farm Service Agency  
Resource Conservation & Development  
Pawnee Nation  
Choctaw Nation  
Oklahoma Department of Wildlife Conservation  
Oklahoma Water Resources Board  
Oklahoma State University  
Conners State College  
Langston University  
Town of Avard  
Town of Buffalo  
Town of Carmen  
Town of Cashion  
Town of Grayson  
City of Choctaw  
City of Harrah  
City of Healdton  
City Hennessey  
City of McLoud  
City of Tulsa  
Caddo County Conservation District  
Cherokee County Conservation District  
Cotton County Conservation District  
Grady County Conservation District  
Latimer County Conservation District  
LeFlore County Conservation District  
Ottawa County Conservation District  
Ouachita Mountain Resource Conservation and  
Development  
Pawnee County Conservation District  
Payne County Conservation District  
Upper Washita Conservation District  
Wagoner County Conservation District  
Gloss Mountain Conservancy  
The Nature Conservancy  
Tulsa Zoo Friends  
Noble Foundation  
Kids We Care  
Spencer Church of Christ  
Museum of Great Plains  
Eagle Ridge Institute  
Noble Foundation  
Sutton Avian Research Center  
Team Roundup  
Williams Company

Oklahoma Natural Gas  
ARKLA  
Western Resources  
Georgia Pacific  
ANR Pipeline Company



**A Partners wetland restoration project.**

---

## Accomplishments

---

Since 1990, in Oklahoma alone, the Partners for Fish and Wildlife Program in cooperation with many partners, has restored, enhanced or protected:

- ✓ **70,000** acres of wildlife habitat
- ✓ **15,000** acres of wetland habitat
- ✓ **45,000** acres of grassland
- ✓ **30** miles of riparian habitat
- ✓ **75** Outdoor Environmental Classrooms
- ✓ Over **1,500** landowners visited
- ✓ Nearly **500** projects are in place statewide

## Future Needs

- ◆ Restore and enhance 5,000 acres of bottomland hardwood wetlands in Eastern Oklahoma. This essential habitat provides important migrating, wintering and breeding areas for a wide variety of waterfowl, shorebirds, wading birds, song birds and other wetland dependant wildlife species.
- ◆ Restore, enhance/manage over 300,000 acres of grasslands in the tall, mixed, and short grass regions of Oklahoma. The decline of native grasslands in Oklahoma has affected many wildlife species, and several are being considered for listing under the Endangered Species Act.
- ◆ Many streams throughout Oklahoma are in need of restoration work. Streambank stabilization, steambed restoration, and riparian management all are needed. An estimated 3,000 - 5,000 miles of degraded streams are in immediate need of restoration work on private lands.
- ◆ To successfully and appropriately educate children on fish and wildlife natural resource issues, we estimate that 300 schools around the State should complete Outdoor Classroom projects.



Construction phase of a 15-acre wetland restoration.



The same site after wetland after restoration.

*“The relatively small amount of money appropriated to this program is establishing much needed wildlife habitat in my home State of Oklahoma. I am willing to set aside a portion of my property for the very worthwhile program.”*

-- Daniel L. Hauser, Tulsa, OK

## CONTACTS

Jontie Aldrich, Ken William  
Partners for Fish and Wildlife  
222 S. Houston, Suite A  
Tulsa, OK 74127-8907  
(918) 581-7458 Fax (918) 581-7467



July 2001

