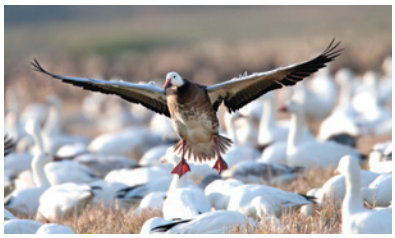
RESTORATION RETURNS



U.S. Fish & Wildlife Service
creates local jobs and dollars

Private lands are important in conserving fish and wildlife

About 75% of fish and wildlife species depend on private lands for their survival. In some watersheds, up to 95% of at-risk species occur only on privately owned forest lands.[1] Every year we lose two million acres of privately owned farms, forest and open space, and 100,000 acres of wetlands, to the pressures of development.[2]

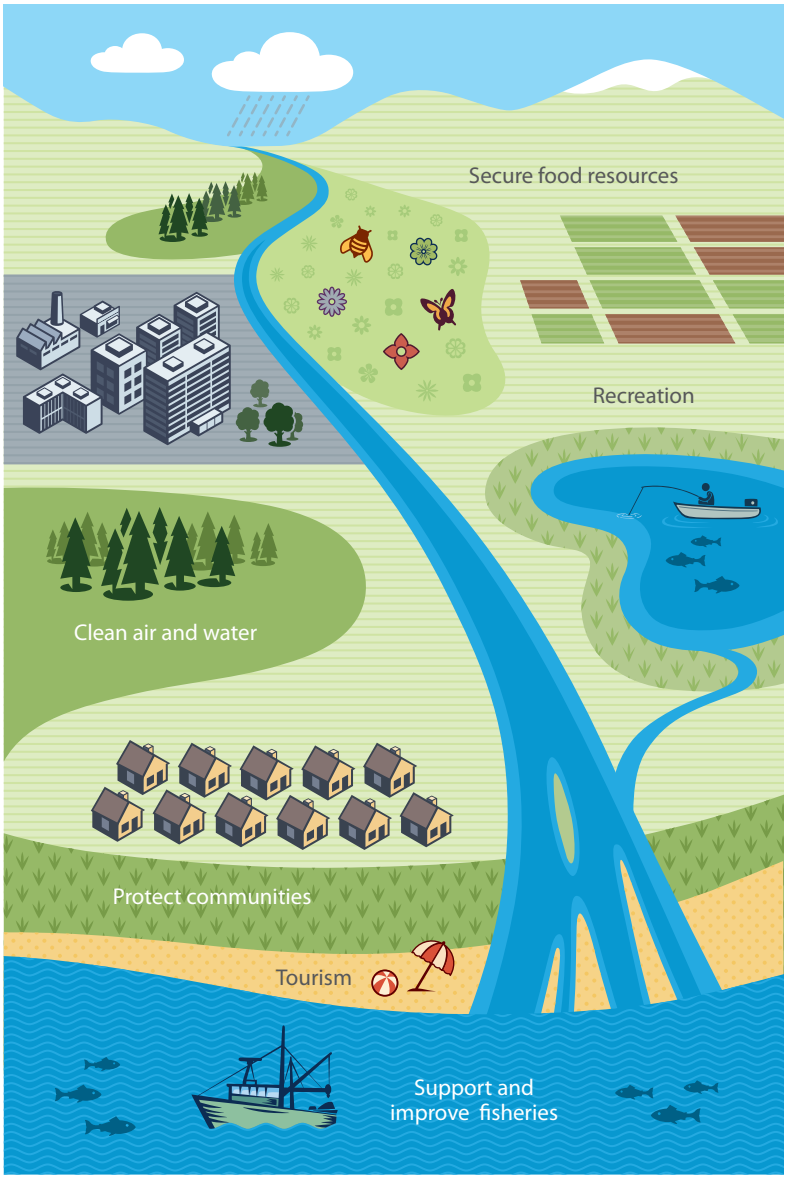
Conservation on private lands is not only important, but it complements the benefits of national wildlife refuges, national parks, national forests and other protected areas by providing important fish and wildlife habitat. Ultimately, successful long-term conservation will depend on habitat restoration efforts on both public and private lands.

Grasslands (including prairie and pasturelands) protect water quality, keep soil from eroding and provide food for grazing livestock. At least 29 species of birds are dependent on grasslands for breeding and refuge.[3] Only 5% of the original prairie in the U.S remains.[4] Private lands restoration is critical to environmental health since 85% of grasslands are privately owned.[5]

Healthy natural areas, whether shorelines or streams, wetlands or forests, provide many benefits to local communities. They:

- Secure food resources by conserving soil, controlling pests and benefiting pollinators.
- Provide for tourism and recreation such as fishing, boating, hunting and birding.
- Provide clean air and water by filtering pollutants.
- Protect communities from flood damage and extreme weather.
- Support and improve commercial and recreational fisheries.

Economists estimate the value of these benefits to local communities and the public to be over $100 billion a year.[6]



Partnering with landowners for conservation

The U.S. Fish and Wildlife Service's premier tool for working with landowners is the Partners for Fish and Wildlife (PFW) Program. The program works one-on-one, on a voluntary basis, with private landowners to improve fish and wildlife habitat. Landowners agree to maintain the improvement project for at least ten years, but otherwise retain full control of their land. Partners may also include tribes, schools, conservation groups and local, state and federal agencies.

Since its beginning, the Partners for Fish and Wildlife Program has:

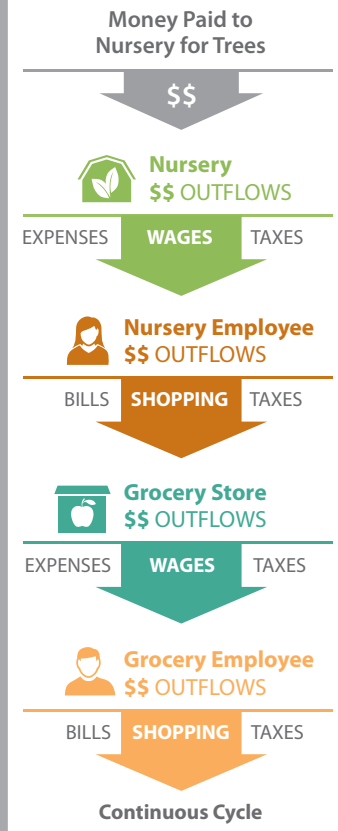
- **Partnered** with more than 45,000 landowners and 3,000 organizations.
- **Implemented** nearly 29,000 restoration and technical assistance projects on private lands.
- **Restored** over one million acres of wetlands, three million acres of upland and 11,000 miles of streams.

Restoration: healthy lands, healthy economies

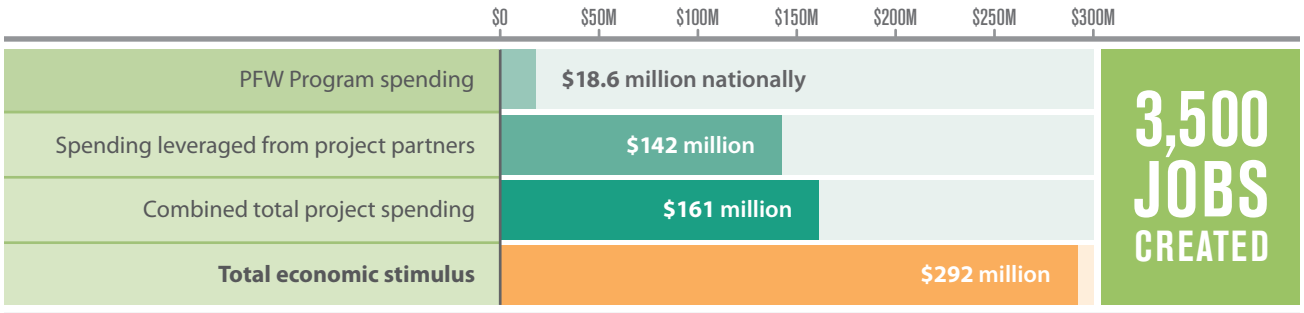
PFW Program projects create jobs and provide income in local communities. Here's how it works:

1. PFW project funds leverage non-federal funds from other partners.
2. Project spending supports local businesses.
3. Businesses hire and pay employees.
4. Workers and businesses spend money in the local economy.
5. Spending produces local tax revenues.

The Local Multiplier Effect of TREE PLANTING



Numbers at a glance FY 2011

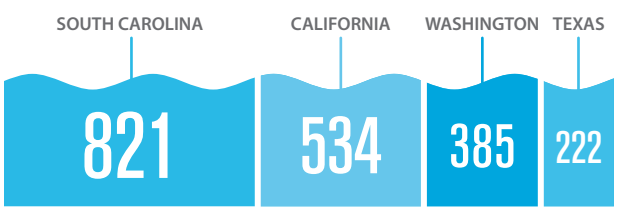


This reflects spending for on-the-ground restoration projects completed in FY 2011. Program spending for protection activities and staff time to support technical assistance is not included.

ECONOMIC RETURNS

Every **$1** the Partners for Fish and Wildlife Program invested in a project leveraged **$8.65** in total project funding, which created **$15.70** in economic returns.

JOBS FROM SELECTED PFW PROGRAM PROJECTS



1,962 jobs created in 4 states alone.

METHOW VALLEY, WASHINGTON

Hancock Springs project restores salmon stream and adds **$2 million** and **28 jobs** to rural Washington economy

> "[No government conservation program] is more resonant with Leopold's version of a land ethic than the Partners for Fish and Wildlife Program. It allows a landowner to express their own land ethic on their own property."
>
> BUDDY HUFFAKER,
> THE ALDO LEOPOLD FOUNDATION

Hancock Springs is a mile-long spring creek in the Methow Valley of central Washington state. Before cattle trampled its banks, Hancock Springs had been a prime spawning area for salmon and steelhead.

When Yakama Nation Fisheries staff first surveyed the small creek in 2005, they found no salmon or steelhead. But the staff saw potential. The first restoration project in 2006 fenced the stream from livestock and deer, placed logs in the creek and planted native shrubs.

Immediately, 23 steelhead built redds (spawning beds) in the creek. Soon there were more steelhead spawning beds there than anywhere else in the entire Methow Basin.

In 2010 the Methow Conservancy brokered an easement and restoration agreement with the landowner on 314 acres surrounding the creek, and a second project got underway.

The ambitious project aimed to completely restore the historical form and function of the channel and nearby wetlands. The creek's stable temperatures and spring flows make it superior fish habitat.

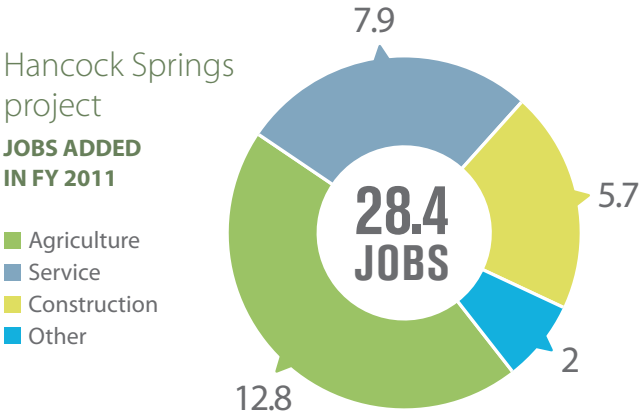
U.S. Fish and Wildlife Service staff were involved in every aspect of the project, from survey and design to permitting and compliance, from collecting native seeds to hundreds of hours of manual labor.

Fish immediately swam into the restored reach. This time it was four endangered Spring Chinook salmon. Hundreds of salmon and steelhead have since used the creek.

Early funding from the Partners for Fish and Wildlife program leveraged a total of $1.4 million in funding from four other partners. Overall, the project generated $2,048,500 in output and nearly 30 jobs. The habitat improvements will boost recreational fishing.

Hancock Springs project

JOBS ADDED IN FY 2011



Maryland project removes invasive nutria and adds **55 jobs** and **$2.5 million** to local economy

"Tudor Farms is over 6,500 acres, of which 2,000 acres are marshland. Without the removal of the nutria on our property, our marshes would be gone forever! We are a great supporter of this project financially and by serving on the management advisory board for the past 12 years."

KEVIN COMPTON, OWNER OF TUDOR FARMS

Nutria are invasive South American rodents. They are wreaking havoc in wetlands across the United States.

These large rodents eat plant roots in marshlands. Without root mats to anchor wetland grasses, open water takes the place of marshes. This destroys habitat for striped bass, blue crabs and other commercial species.

Nutria were imported into Dorchester County, Maryland, in 1943 for their fur. They have no natural predators. Since its initial introduction, the nutria population in Maryland has exploded. In 1968 there were less than 150 animals on 10,000 acres of the Blackwater National Wildlife Refuge. In 1998 there were as many as 50,000 nutria. The damage is severe: Blackwater has lost half of its wetlands since nutria arrived.

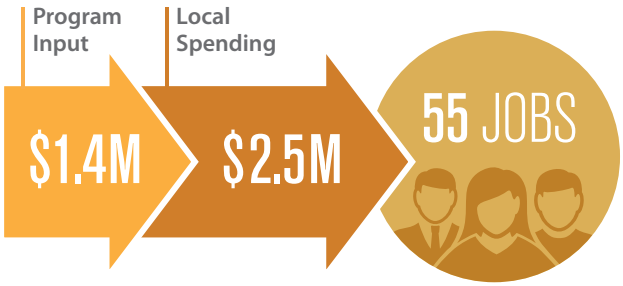
The Maryland Nutria Project aims to eradicate nutria and restore the state's coastal marshes. It is a working partnership between the U.S. Fish and Wildlife Service and 27 federal, state and private partners. The Nutria Eradication and Control Act of 2003 authorized funding.

Since 2000, nutria have been removed from over 150,000 acres of public and private land in Dorchester County. Strategies include trapping, tracking and searches to find elusive animals.

Trapping and other methods used to manage nutria are very labor intensive, leading to many jobs. Workers and their families spend more of their money on services and retail goods than businesses do. This has a large impact on the local economy.

The Maryland Nutria Project has resulted in $2,560,000 in local spending and 55 much needed jobs.

Since 2002, more than 650 private landowners in seven counties in Maryland, Delaware and Virginia have agreed to provide access to eradicate nutria on more than 100,000 acres of private land. They have also educated others about the effort.



ALAKA'I PLATEAU, HAWAII

Fence protects pristine Hawaiian forest and adds **$1.5 million** and **28 jobs** to Kaua'i economy

"Partners for Fish and Wildlife staff are critical partners for local restoration projects, from helping with design to leveraging additional partners. USFWS involvement results in healthier wildlife habitat and major economic benefits to local communities."

JEFF BENOIT, PRESIDENT AND CEO,
RESTORE AMERICA'S ESTUARIES

The Alaka'i plateau, in the remote wilderness of Kaua'i, is home to a broad array of native birds, plants and other animals. Many of the flora and fauna living in the pristine forests and bogs exist only in Hawaii. Kaua'i has 225 plant species and 8 forest bird species that are found only on the island, including 170 endangered species.

Known as wao akua or "realm of the gods," the Alaka'i plateau is a sacred place for the people of Kaua'i. It is also the primary source of the island's freshwater.

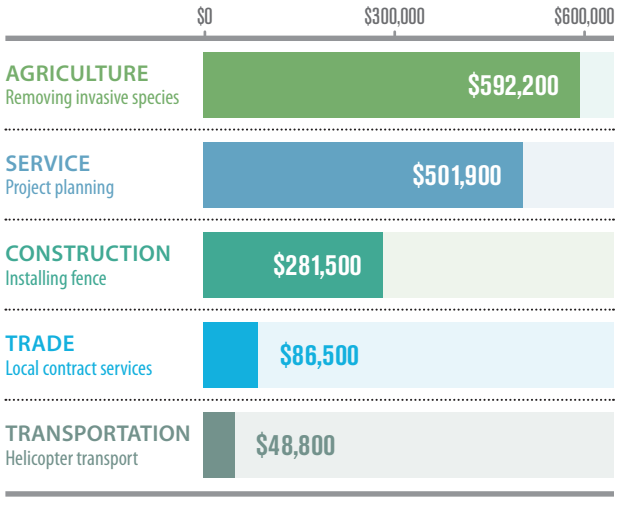
Feral pigs and goats had damaged parts of the plateau. The restoration project installed 26,400 feet of fence to keep these non-native animals out of the forest. There are plans to remove them from the area and to control invasive plants. The goal is to protect and restore 2,000 acres of forested watershed (1,405 acres of private land and 595 acres of state land).

The fencing project is part of a larger project to protect 8,000 acres of native habitat. The Kaua'i Watershed Alliance, a consortium of wilderness landowners, created a plan to protect the watersheds of the island's central mountains.

The project took place from 2009 through 2011. By 2011 the habitat was already improving. Project partners included the U.S. Fish and Wildlife Service and The Nature Conservancy.

The project spent $964,164. This resulted in $1,554,000 in output in the local economy and 28.8 jobs. Most of the jobs created were in agriculture. This created a huge boost to the local economy, which has 1,100 agricultural workers and 7 percent unemployment.

INDUSTRIES DIRECTLY INVOLVED IN ALAKA'I PLATEAU PROJECT



Other economic impacts: Manufacturing – $23,700; Government – $17,000; Mining – $2,600

APACHE GROVE, ARIZONA

Apache Grove project restores wild river and adds **$874,000** to local Arizona economy

> "The Partners Program has been around for 25 years, and I hope it stays that way for generations. It's a great program. It's rancher friendly and it's landowner friendly."
>
> JIM STONE, CHAIR,
> PARTNERS FOR CONSERVATION

The Gila River is one of the last wild, free-flowing rivers in the Southwest. It is also one of the country's most endangered rivers.

In the river's upper reaches, cottonwoods and sycamores provide cool shade. The river is home to native fish and wildlife, including more than 250 species of birds. The Gila flood plain is critical habitat for the threatened Southwestern willow flycatcher.

The Apache Grove project involved a landowner who had lost farmland from migration of the river channel and erosion during large storms. The project stabilized the landowner's property along the river and restored stream function for birds and fish.

The project was developed by Graham County and the Gila Watershed Partnership. The PFW Program provided the staff time and technical expertise needed to implement it.

The project restored the river's floodplain by removing 3,000 feet of earthen levees and regrading the shoreline. It also stabilized two thousand feet of stream banks by changing the slope.

Native vegetation was planted along the shoreline and "hedgerows" were installed in farm fields perpendicular to the river. These plantings filter and slow flood waters and reduce the landowner's risk of erosion and land loss.

Finally, non-native salt cedar was removed by hand. This helped restore water levels and habitat for pollinators and native wildlife.

The project was funded with $796,700 from the Arizona Water Protection Fund Program. Total economic output in the community was $874,000 and almost 8 jobs.

SALT CEDAR H_2O CONSUMPTION

Salt cedar consumes ***3 times*** more water than native plants.

Annual value of lost irrigation water: ***$121 million***.[7]

"The Partners for Fish and Wildlife Program has proven to be an effective habitat conservation program that leverages federal funds and utilizes voluntary private landowner participation."

– Senator James Inhofe (R, OK)

ENDNOTES

1. (USDA, 2010) Threats to At-Risk Species in America's Private Forests http://www.fs.fed.us/openspace/fote/at-risk-maps/gtr_nrs73.pdf
2. http://www.texaslandconservancy.org/who-we-are-mainmenu-34.html
3. http://www.stateofthebirds.org/habitats/grasslands
4. http://environment.nationalgeographic.com/environment/habitats/grassland-threats/
5. http://www.stateofthebirds.org/habitats/grasslands
6. http://stateofthecoast.noaa.gov/coastal_economy/nonmarket.html
7. Zavaleta, Erika. 2000. The Economic Value of Controlling an Invasive Shrub. AMBIO: A Journal of the Human Environment 29(8):462-467. http://www.bioone.org/doi/abs/10.1579/0044-7447-29.8.462

Unless referenced separately, all data in this report are from "Restoration Returns: The Contribution of Partners for Fish and Wildlife Program and Coastal Program Restoration Projects to Local U.S. Economies," by Drew Laughland, Linh Phu and Joe Milmoe, U.S. Fish and Wildlife Service, 2014.

PHOTO CREDITS

Cover: Large photo – Joe Milmoe; Kayakers – Chris Kuhlman/CK Productions | Pg 4: Nutria – Alois Staudacher | Pg 6: Small cutbank photo – Natural Channel Design; Southwestern Willow Flycatcher – Jim Rorabaugh | Back cover: Asian girl – Chris Kuhlman/CK Productions

RESTORE AMERICA'S ESTUARIES

Restore America's Estuaries

2300 Clarendon Blvd, Suite 603 | Arlington, VA 22201

703.524.0248 | **www.estuaries.org**

PRINTED ON RECYCLED PAPER WITH POST-CONSUMER CONTENT