



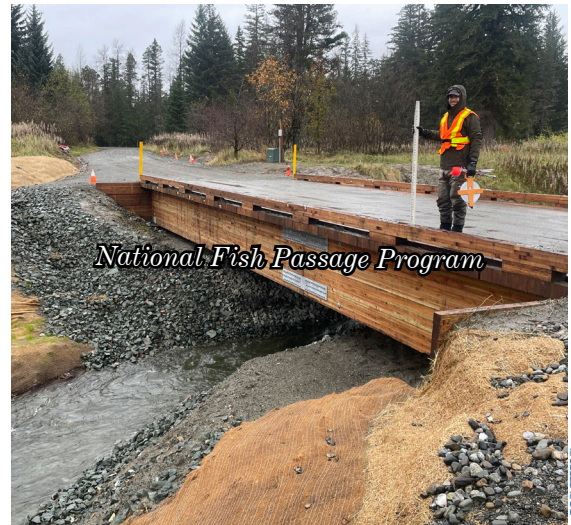
Bipartisan Infrastructure Law

2022 Annual Report



Delaware River Basin Restoration Program

USFWS



National Fish Passage Program

USFWS



Klamath River Restoration Program

Jennifer Silveira / USFWS



Lake Tahoe Restoration Activities

Jacquelyn D'Almeida / USFWS



Orphan Well Remediation

Scott Covington / USFWS



Sagebrush Ecosystem Conservation

Tom Koerner / USFWS

A Note from the Director

Focusing on collaborative partnerships and natural infrastructure

At its core, the Bipartisan Infrastructure Law is a significant investment in the nation's infrastructure and economic competitiveness. For the U.S. Fish and Wildlife Service, the funding will build on proven projects, programs and partnerships that protect our cherished wildlife and natural resources. It will improve public safety, create jobs and connect communities. This historic law is giving us and Nature a chance.



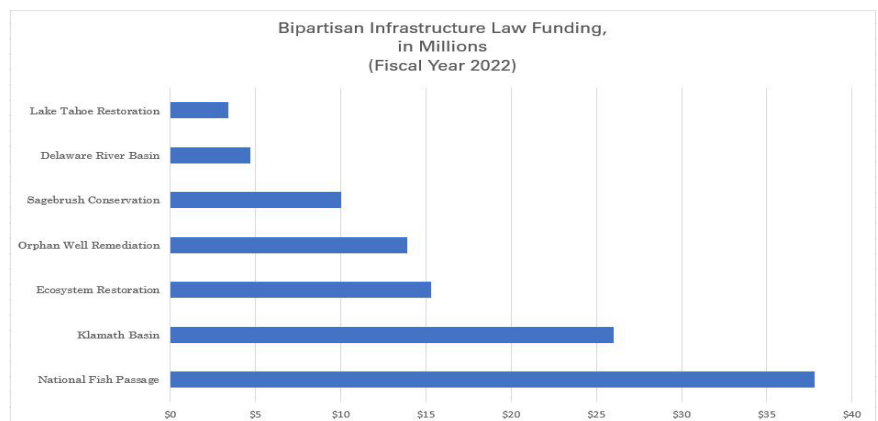
On November 15, 2021, President Biden signed the Bipartisan Infrastructure Law, providing the Service with \$455 million, over five years, to support and implement projects to help local, state and Tribal communities tackle the climate crisis, advance environmental justice, and protect wildlife and natural resources. For many of these investments, we coordinated with our conservation partners, Tribal nations and Indigenous communities to enhance locally led conservation efforts and increase recreational opportunities on public lands.

In 2022, we allocated nearly \$111 million for just over 300 projects across the country. There are so many positive impacts resulting from this once-in-a-generation funding, and we're excited to highlight some of these in the following pages. In the Bipartisan Infrastructure Law's inaugural year, we identified 12 projects in the Delaware River Basin, 33 in the Klamath Basin and five in the Lake Tahoe area that will provide habitat restoration, invasive species control, conservation of at-risk species and other benefits to these significant ecosystems. The Service and partners also started work on 40 National Fish Passage Program projects which are restoring habitat connectivity for aquatic species and reducing flooding risks and public safety hazards. And, we co-sponsored a National Fish Passage Bipartisan Infrastructure Law workshop to pull together diverse groups, including more than 100 practitioners from federal and state agencies, Native American Tribes, conservation organizations and other partner organizations, to identify shared goals in an effort to make the most of this opportunity.

Through our Legacy Pollution efforts, we are creating climate resiliency by plugging 175 orphan wells on six National Wildlife Refuges in Louisiana and Oklahoma that are actively leaking hydrocarbons, methane and contaminated water and pose a threat to wildlife, their habitats and people living nearby. And, through the Service's Sagebrush Conservation program, we are implementing 49 projects in the western states to conserve strategic areas within the sagebrush ecosystem and restore and safeguard precious water resources for neighboring communities and wildlife.

It's been an unprecedented year and I'm eager to embark on year two. Before us is increased opportunity to develop and build even stronger relationships with Tribal governments, Indigenous communities, state agencies, land-owners and partners. And, since these investments directly correlate to the Department of Interior's America the Beautiful and Great American Outdoors Act initiatives, they are collectively improving natural infrastructure and enhancing work we are already doing. I believe that we can use Bipartisan Infrastructure Law natural investments as an avenue to encourage broader and more diverse communities to come together in partnership and make an impact.

Photos: From top - Director Williams visits Montana fish passage project / Jim Keenan (USFWS); Director Williams in sagebrush territory in Wyoming / Mike Disney (USFWS)



"In my book, this is a win-win for the Service and the fish, wildlife and plants we are entrusted to protect on behalf of the public."

- Martha Williams, Director, U.S. Fish and Wildlife Service

Delaware River Basin Restoration

\$4.7 million, 12 projects, 4 states

This program takes a non-regulatory approach to landscape-scale conservation and builds upon existing collaboration by partners to conserve and restore a network of lands and waters to support wildlife. It's guided by a strategic framework developed to focus on reducing flooding and runoff, restoring fish and wildlife habitats, improving water quality and enhancing safe recreational access for the public.

FOCUS SPECIES: AMERICAN SHAD

Flat, silvery shapes wiggle beneath the water. No distinctive markings or bright colors like rainbow trout, just light reflecting off their smooth sides like a mirror—this is the American shad.

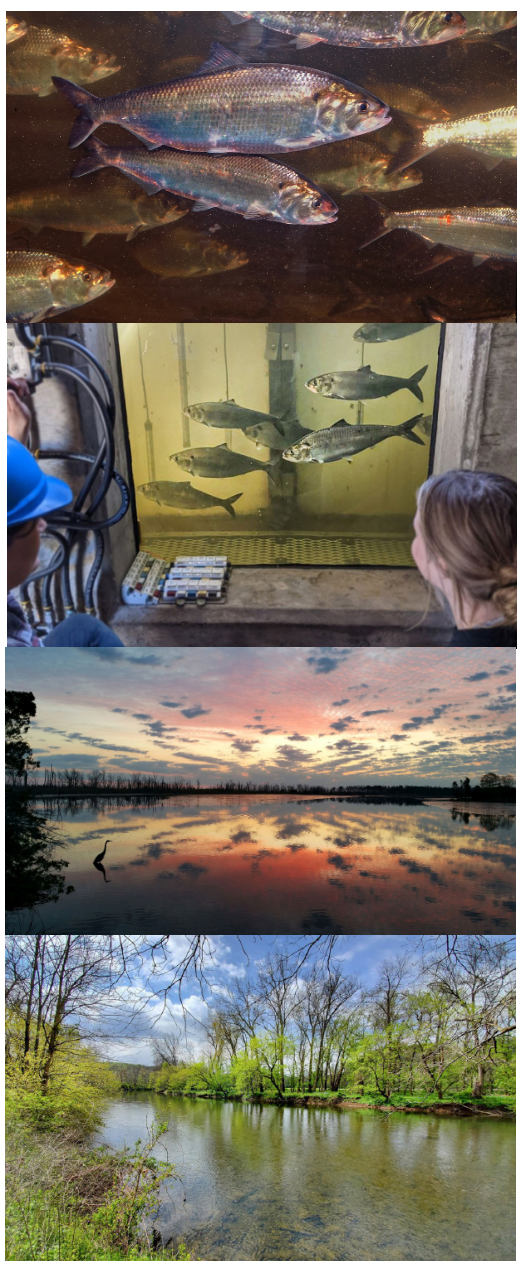
Shad are a special and significant fish species in the Delaware River watershed, especially within the Brandywine River, which flows from Southern Pennsylvania through Northern Delaware. These fish are anadromous, meaning they migrate between fresh water and the ocean where the shad spend most of their lives (reaching adulthood after the age of 15) before returning to fresh water to breed. From their habitats in small tributaries, to their home out at sea, shad are a critical part of many ecosystems.

Shad have a bland name but a vibrant history. Their runs have fed people, like the Lenape Tribe, since time immemorial. Even George Washington was a commercial shad fisherman. With a population numbering in the millions, these “founding fish” were thriving, but that was before their future was literally blocked. Dam after dam, mill after mill, popped up along their historic waterways, preventing passage upstream, cutting the shad off from their spawning grounds. The “poor man’s salmon” had nowhere to go.

Conservation partners have been building momentum to remove dams throughout the watershed for years, and now supported by Bipartisan Infrastructure Law funds, dams, culverts and other structures are being taken out or rehabbed to support this fish’s journey home.

While dam removal is an arduous process, with a multitude of steps, the young, fingerling shad are all the proof conservationists need to continue the fight to free rivers in the Northeast.

Slowly, steadily, barriers to their rivers and streams have been removed, and shad are making a comeback. Thanks to Bipartisan Infrastructure Law funding, shad are instinctively finding their way back to places their ancestors hadn’t been to in 300 years!



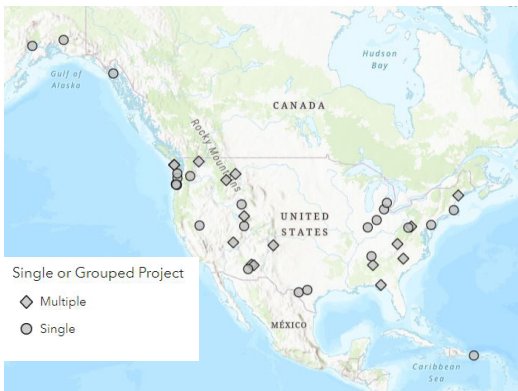
Photos: From top - American shad / Bill Byrne (MassWild-life); Shad migration window / USFWS; Prime Hook NWR / April Abel (USFWS); First State National Historical Park / NPS

National Fish Passage Program

\$37.8 million, 40 projects, 100 barriers

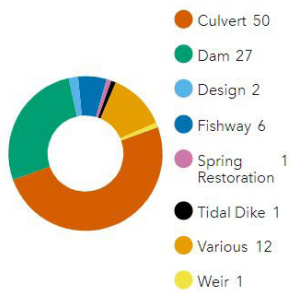
The Fish Passage Program works with states, Tribes, local communities and other partners on a voluntary basis to restore rivers and conserve our nation’s aquatic resources by removing or bypassing barriers. These projects benefit both fish and people by removing obsolete and dangerous dams, permanently eliminating public safety hazards and restoring connected ecosystems for fish and wildlife passage.

**Bipartisan Infrastructure Law
2022 Fish Passage Project Locations**



Number of Barriers by Project Type

Some barriers are on private land and are not included



CASE STUDY: LEVERAGING NETWORKS AND PARTNERSHIPS

Across the country, there are millions of barriers that block viable corridors for fish and other aquatic wildlife to access spawning grounds, food sources and safe waters. The Service’s National Fish Passage Program finds a way around these roadblocks by working with a growing network of partners to either remove the barriers or create detours.

In 2022, this program leveraged almost \$38 million in Bipartisan Infrastructure Law funds, with \$34.4 million in partner funds, to identify 40 projects that, when completed, will remove 100 barriers and reopen 3,722 stream miles.

The National Fish Passage Program has been working with local partners for years to help lay the groundwork for these 40 projects. Thanks to a national network of landowners, states, conservation organizations, Tribes and local governments, our biologists and engineers were able to provide assistance in the planning, design, implementation and monitoring of these complex infrastructure improvements that typically take years to plan and develop.

In 2022, several broke ground and, when completed, will reopen coastal, river, stream, lake and pond habitats for a variety of fish and aquatic species. These include the federally endangered Atlantic salmon in Maine, the Bonneville cutthroat trout, genetically unique to Utah’s Bear River watershed, and Alaska’s Sockeye and King Salmon, which are a culturally significant part of Alaska’s heritage.



Photos: Above - New bridge in Gustavus, AK / Trent Liebich (USFWS); Right - Sabbatus River, ME / Catherine Birmingham (ASF); Lower Toewood facing Evanston Dam / Dave Kimble (USFWS)



Klamath Basin Restoration

\$26 million, 33 projects, 6 Tribal partners

Over the past 20 years, the Klamath Basin has met unprecedented challenges from ongoing drought, limited water supply and diverse needs. As drought conditions persist, the Klamath Basin's fragile ecosystem depends on collaborative partnerships among a wide variety of stakeholders and the development of holistic solutions. These investments represent the initial phase of enhanced restoration work.

CASE STUDY: IMPROVING WETLAND HABITAT THROUGH IRRIGATION EFFICIENCIES AND PROTECTING ENDANGERED FISH

The Klamath Basin in southern Oregon and northern California has encountered exceptional challenges, including severe and persistent drought conditions over the last two decades. To combat these challenges, \$162 million will be allocated to Klamath Basin restoration projects over the next five years, with nearly \$16 million allocated in 2022 for projects that focus on water quality and habitat restoration and \$10 million for the fish hatchery expansion.

With the introduction of Bipartisan Infrastructure Law funding, the Service began soliciting project proposals in 2022 from Tribes, local and state agencies, non-governmental organizations and other conservation partners. These proposals resulted in funding for 33 Klamath Basin restoration projects that support federally Endangered Species Act listed fish, sustain critically important wetlands for migrating waterfowl, and consider related natural resources issues.

On Lower Klamath and Tule Lake National Wildlife Refuges, \$2,668,147 will be used to improve wetland habitat through irrigation efficiencies. This project will provide flexibility in management and decrease operational costs by constructing four pumping stations, two on Lower Klamath National Wildlife Refuge and two on Tule Lake National Wildlife Refuge. These pumping stations will improve water supply reliability and irrigated agriculture functionality on over 20,000 acres of wetland habitat.

In an effort to continue to protect federally Endangered Species Act listed fish in the Klamath Basin, \$10 million will support the Klamath Falls National Fish Hatchery's expansion. This investment will increase rearing capacity for two federally Endangered Species Act listed fish -- the Lost River and shortnose suckers (C'waam and Koptu) -- found only in the Klamath Basin.

When completed, the expansion of the hatchery will increase the annual rearing capacity to 60,000 fish, which can support and stabilize the imperiled, declining wild populations of both sucker species in Upper Klamath Lake.

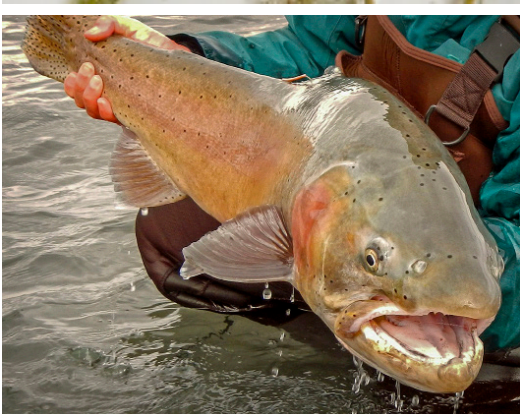


Photos: From top - Upper Klamath Basin / USFWS; Tule Lake NWR / USFWS; Lost River suckers / Jason Ching (USGS); Lower Klamath NWR / USFWS

Lake Tahoe Restoration

\$3.4 million, 5 projects, Tribal engagement

The Lake Tahoe Basin faces ongoing threats from the introduction and spread of aquatic invasive species. Its management has become a top priority for Lake Tahoe's restoration. Through key partnerships and Tribal engagement, Bipartisan Infrastructure Law funding provides important capacity to stop the spread and control aquatic invasive species for the benefit of native species, including the Lahontan cutthroat trout.



Photos: From top - Lahontan cutthroat trout / USFWS; Eurasian watermilfoil / John Hilty (Licensed under Creative Commons BY-NC); Lahontan cutthroat trout in Pyramid Lake / USFWS; Right - Lake Tahoe Basin / USFWS

CASE STUDY: PARTNERING ON AQUATIC INVASIVE SPECIES MANAGEMENT

Invasive species is a main cause of global biodiversity loss, threatening nearly half of the imperiled species in the United States and contributing to more than 40 percent of the current listings under the Endangered Species Act.

Common invasive weeds, like the Eurasian watermilfoil, significantly disrupt aquatic ecosystems and crowd out native species. These species can spread through such everyday activities as fishing, hunting, and boating, or by more intentional means, such as the dumping of unwanted aquarium fish or plants into a lake.

The Service works closely with the Tahoe Regional Planning Agency, Washoe Tribe of Nevada and California, and the multi-partner Aquatic Invasive Species Coordinating Committee to identify priority areas for funding under the Bipartisan Infrastructure Law, including permanent watercraft inspection stations, to aid in prevention.

In 2022, \$1,550,000 was provided to the Taylor-Tallac Aquatic Invasive Species (AIS) Control Project. The Taylor and Tallac creeks and marshes are infested with approximately 17 acres of the invasive aquatic weed Eurasian watermilfoil. This investment will fund the installation of benthic barriers that smother invasive aquatic plants and prevent photosynthesis by blocking sunlight.

To strengthen collaboration with the Washoe Tribe of Nevada and California, several projects have been funded to increase Tribal engagement and participation in ecosystem restoration efforts and aquatic invasive species management and will inform future program priorities with traditional perspective and methods.

Over the next five years, a \$17 million investment is being made into Lake Tahoe Basin projects. Bipartisan Infrastructure Law funding will provide important capacity to stop the spread and prevent new aquatic invasive species for the benefit of native species, including the iconic Lahontan cutthroat trout.



Orphan Wells

\$13.9 million, 175 projects, 6 refuges

Orphaned wells are environmental and public safety hazards caused by past oil and gas activities. The efforts to tackle legacy pollution will have a tangible impact on outdoor recreation access and will conserve wildlife habitats across six national wildlife refuges in Louisiana and Oklahoma. Work to clean up these hazardous sites is crucial as we conserve fish, wildlife, plants and their habitats.



HABITAT FOCUS: NATIONAL WILDLIFE REFUGES

In the Service's National Wildlife Refuge System, efforts are underway to clean up legacy pollution sites where orphaned wells litter the landscape with dilapidated and dangerous equipment, harm wildlife and their habitats, and jeopardize public health and safety by potentially contaminating groundwater or emitting greenhouse gases like methane. Wells are considered orphaned if there is no viable operator of record and therefore no longer a viable party responsible for their upkeep.

Through Bipartisan Infrastructure funding, the Service is working with state agencies and partners to ensure beautiful and cherished National Wildlife Refuge System lands are restored for the benefit of wildlife and their habitats and are safer for people and surrounding communities.

In Louisiana's Upper Ouachita National Wildlife Refuge, 59 orphaned wells will be plugged and remediated. This refuge provides wintering habitat for thousands of waterfowl, alligators, forest interior songbirds, bald eagles, Louisiana black bears, Rafinesque's big-eared bats, migrating shorebirds and endangered red-cockaded woodpeckers.

Seven orphaned wells will be plugged and remediated in Louisiana's Atchafalaya National Wildlife Refuge, where the scenic bayous, oxbow lakes, swamps and bottomland hardwood forest abound.

Eleven orphaned wells will be plugged and remediated in Louisiana's Lacassine National Wildlife Refuge, which is strategically located on the boundary of coastal marsh and agricultural habitats.

Six orphaned wells will be plugged and remediated in Louisiana's Black Bayou Lake National Wildlife Refuge, which is located within the city limits of Monroe and offers easily accessible recreational opportunities. And, in Louisiana's D'Arbonne National Wildlife Refuge, which is home to a diverse group of plants and animals, 68 orphaned wells will be plugged and remediated.

Almost 500 miles away, in Oklahoma's Deep Fork National Wildlife Refuge, 24 orphaned wells will be plugged and remediated to protect and preserve bottomland hardwood forest and wetland habitats for the benefit of waterfowl, migratory birds, fish and native wildlife.

*Photos: From top - Lacassine NWR / USFWS;
Pre-survey testing at Atchafalaya NWR / USFWS;
Pre-survey testing at D'Arbonne NWR / USFWS*

Sagebrush Conservation

\$10 million, 49 projects, 84 partners

These funds build on existing collaborative efforts by the Service and our public and private partners to conserve the sagebrush ecosystem and the significant biological, cultural and economic resources it supports. These projects combat invasive grasses and wildfire, reduce encroaching conifers, safeguard water resources for neighboring communities and wildlife, and promote community and economic sustainability.



Red Rock Lakes NWR / Cortez Rohr (USFWS)

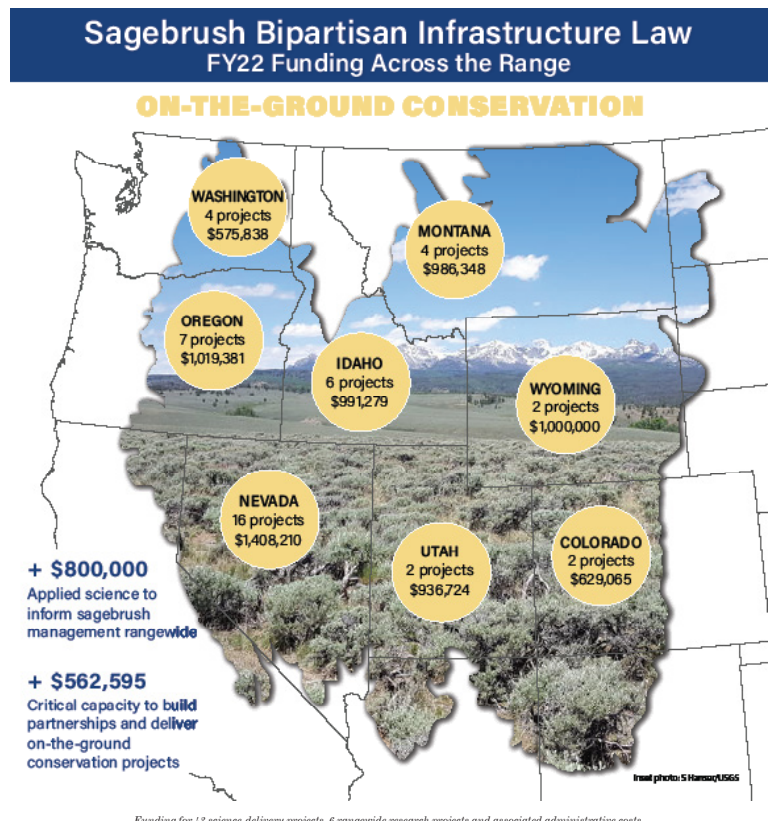
CASE STUDY: DEFENDING AND GROWING THE CORE

Located in a remote corner of southwest Montana, Red Rock Lakes National Wildlife Refuge is the largest wetland complex in the Greater Yellowstone Ecosystem. Cortez Rohr, the deputy refuge manager, described the refuge as a very biodiverse place in the American West because, “the sagebrush ecosystem alone has things that can only be found there. And it’s within eyesight of an oasis of water and forest.”

Within its 53,000 acres, the Refuge also contains sagebrush habitat, which provides benefits to rural economies and communities, and is crucial for over 350 species of plants and wildlife of conservation concern. Yet, invasive annual grasses and conifers have been creeping in, changing the beautiful and healthy landscape by decreasing the ability of the land to support both wildlife and people.

Adam Braddock, a project lead for the Montana Collaborative Sage-Steppe Mesic Habitat Restoration project, explained, “As we lose sagebrush, we are losing native grasses that are important for wildlife and livestock. The invasive annual grasses are poor livestock forage and wildlife habitat. So, by treating them and maintaining a native grass community, ranchers can maintain their cattle and operations.”

Almost 50 projects were funded based on the Sagebrush Conservation Design, which provides a roadmap for addressing threats to sagebrush such as reducing catastrophic wildfires, mitigating drought, and improving habitat for hundreds of resident and migrating species. The design calls for a ‘Defend and Grow the Core’ approach, focusing first on intact core sagebrush habitats, and then growing the cores outward to restore more degraded areas.



Ecosystem Restoration

\$15.3 million, 5 activities

(an additional \$81.5 million of Ecosystem Restoration funds were distributed to the National Fish and Wildlife Foundation for the America the Beautiful Challenge)

Ecosystem Restoration and Resilience is a significant down payment in protecting our shared natural heritage. In collaboration with states, Tribes, local communities and federal agencies, we are using Bipartisan Infrastructure Law funding to advance habitat restoration, conduct invasive species control and conserve at-risk species. These activities benefit several significant ecosystems and recreational sites.

CASE STUDY: ADVANCING WILDLIFE AND HABITAT CONSERVATION THROUGH FEDERAL AND STATE COLLABORATION

Across the country, ecosystem restoration projects will advance healthy forests, detect and eradicate invasive species, and provide vital long-term ecosystem resiliency.

A multi-regional restoration economy, built on supporting native seed collection and seed production, is critical for long-term ecosystem restoration and critical habitats. The National Seed Strategy for Rehabilitation and Restoration, developed in collaboration with the U.S. Department of Agriculture, the Department of the Interior and other federal agencies of the Plant Conservation Alliance, will increase the commercial supply and availability of genetically appropriate, locally adapted native seed for the restoration of public, Tribal and private lands.

In Hawai'i, native forest birds, including endangered species like the 'akikiki (*Oreomystis bairdi*) and 'akeke'e (*Loxops caeruleirostris*) on Kaua'i, and kiwikiu (*Pseudonestor xanthophrys*) and 'ākohekohe (*Palmeria dolei*) on Maui, have experienced population declines and have been identified as facing imminent extinction.

While habitat loss, invasive species and non-native predators have negatively affected forest bird species for hundreds of years, introduced diseases, particularly avian malaria, which is transferred through invasive, infected mosquitoes, are the greatest threat. Funding from the Bipartisan Infrastructure Law creates opportunity for the Service to partner with U.S. Geological Survey, the National Park Service, the Office of Native Hawaiian Relations, and the state of Hawai'i to implement critical strategies focused on Hawai'i forest bird conservation and ecosystem restoration.



Photos: From left to right - Justin Hite, Lucas Behnke, Zach Pezillo, Robby Kohley / USFWS



*Learn more about the
U.S. Fish and Wildlife's
Bipartisan Infrastructure Law
funding and projects
at*

[www.fws.gov/initiative/directors-priorities/
bipartisan-infrastructure-law-funds-prov-
en-projects-wildlife](https://www.fws.gov/initiative/directors-priorities/bipartisan-infrastructure-law-funds-proven-projects-wildlife)



The sagebrush landscape encompasses over 175 million acres of public and private lands.