

# Tribal Water and Natural Resources Conservation Guide

Federal Funding and  
Technical Assistance for  
Tribal Environmental Programs



# Disclaimer

This document serves as a guide to connect Tribes with federal sources of financial and technical assistance for natural resources protection efforts. Mention of, or referral to, non-U.S. Environmental Protection Agency programs, products or services, and/or links to non-EPA sites, does not imply official EPA endorsement of, or responsibility for, the opinions, ideas, data or products presented therein, or guarantee the validity of the information provided. Mention of programs, products or services on non-EPA websites is provided solely as a pointer to information on topics related to environmental protection that may be useful to the intended audience.

Cover Photo: Drone view of the McCloud River in Northern California  
(Source: National Oceanic and Atmospheric Administration)

# Acknowledgments

EPA thanks the federal workgroup members, Tribal workgroup members and other contributors who provided valuable input, suggestions and feedback for this guide.

## Federal Team Members

Federal Emergency Management Agency: Josh Human  
National Aeronautics and Space Administration: Amber Jean McCullum  
National Oceanic and Atmospheric Administration: Becky Cruz Lizama, Heather Sagar  
U.S. Army Corps of Engineers: Colonel Xander Bullock, Quana Higgins  
U.S. Bureau of Indian Affairs: Brenda Hatathlie, John Mosley, Michael Whitehead  
U.S. Bureau of Reclamation: Kristine Reed  
U.S. Department of Agriculture: Josiah Griffin, Pedro Torres  
U.S. Environmental Protection Agency: Andy Bessler, Margot Buckelew, Pat Childers, Steve Epting, Larry Maurin  
U.S. Fish and Wildlife Service: Jill Cohen  
U.S. Forest Service: Rachael Novak  
U.S. Geological Survey: Joel Galloway

## Tribal Team Members

Poarch Band of Creek Indians: Christopher Head  
Santa Ana Pueblo: Tammy Montoya  
Summit Lake Paiute Tribe: James Simmons  
Wampanoag Tribe of Gay Head (Aquinnah): Beckie Finn

## Other Contributors

Bishop Paiute Tribe: Brian Adkins, Brianda Hernandez Rosales  
Colville Tribes: Mitra Aflatooni, Kathy Moses  
Fort Peck Tribes: Wilfred Lambert  
Houlton Band of Maliseet Indians: Sharri Venno, Susan Young  
La Jolla Band of Luiseño Indians: Rob Roy  
Nez Perce Tribe: Aaron Miles  
Oneida Nation: Jim Snitgen  
Upper Snake River Tribes Foundation: Scott Hauser  
U.S. Department of Agriculture: Audre Etsitty  
U.S. Environmental Protection Agency: Abigail Cruz, Abby Hall  
U.S. Fish and Wildlife Service: DJ Monette  
Winnemem Wintu Tribe: Dressa Drake, Mark Miyoshi  
Yukon River Inter-Tribal Watershed Council: Edda Mutter  
Yurok Tribe: Louisa McCovey

This report was developed under U.S. Environmental Protection Agency contract #68HERC22A0021.

*This page intentionally left blank.*

# Contents

## Disclaimer

<b>Acknowledgments</b> .....	<b>i</b>
<b>Acronyms</b> .....	<b>v</b>
<b>Foreword</b> .....	<b>vii</b>
Message from the National Tribal Water Council .....	vii
Message from the Federal Water Subcabinet Tribal Team .....	viii
<b>1. Introduction</b> .....	<b>1</b>
Scope and How to Use This Guide .....	3
<b>2. Federal Financial Assistance to Support Tribal Conservation Work</b> .....	<b>5</b>
Types of Federal Financial Assistance .....	5
Steps to Finding and Managing Federal Grants .....	7
Federal Funding Program Inventory Overview .....	9
Tribal-Specific Federal Funding Programs .....	9
<b>3. Federal Technical Assistance to Support Tribal Conservation Work</b> .....	<b>13</b>
Types of Technical Assistance .....	13
Agency-Specific Technical Assistance Resources .....	15
<b>4. Conservation Topic Areas</b> .....	<b>19</b>
Introduction .....	19
Conservation Topic Areas .....	19
Conservation Topic Featured Elements .....	20
<b>Protecting and Restoring Waters</b> .....	<b>21</b>
Tribal Case Study: Bishop Paiute Tribes .....	23
<b>Protecting Air Quality</b> .....	<b>27</b>
Tribal Case Study: Confederated Tribes of the Colville Reservation .....	30
<b>Protecting Wildlife and Habitat</b> .....	<b>33</b>
Tribal Case Study: Houlton Band of Maliseet Indians .....	36
<b>Preparing for Climate Change and Natural Hazards</b> .....	<b>40</b>
Tribal Case Study: Fort Peck Assiniboine and Sioux Tribes: .....	44

<b>Stewarding Lands</b> .....	<b>48</b>
Tribal Case Study: La Jolla Band of Luiseño Indians .....	53
<b>Supporting and Engaging Tribal Communities</b> .....	<b>58</b>
Tribal Case Study: Upper Snake River Tribal Foundation .....	61
<b>5. Looking to the Future</b> .....	<b>65</b>
<b>Endnotes</b> .....	<b>67</b>

## Tables

<b>Table 2-1. Tribal-specific federal funding assistance programs, which include Tribe-only programs or programs with dedicated Tribal set-aside funds</b> .....	<b>10</b>
<b>Table 3-1. Federal technical assistance programs available only to Tribal applicants</b> .....	<b>15</b>
<b>Table 3-2. Federal technical assistance programs open to Tribal applicants and others</b> .....	<b>16</b>

# Acronyms

BIA	U.S. Bureau of Indian Affairs
CAA	<i>Clean Air Act</i>
CFPB	Consumer Financial Protection Bureau
CWA	<i>Clean Water Act</i>
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FSA	Farm Service Agency
FWS	U.S. Fish and Wildlife Service
NASA	National Aeronautics and Space Administration
NCA5	Fifth National Climate Assessment
NIST	National Institute of Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRCS	Natural Resources Conservation Service
PHMSA	Pipeline and Hazardous Materials Safety Administration
TAS	Treatment in a Similar Manner as a State
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USGS	U.S. Geological Survey

# Foreword

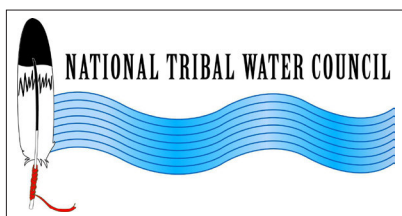
## Message from the National Tribal Water Council

Greetings from the [National Tribal Water Council](#).<sup>\*</sup> Welcome to the *Tribal Water and Natural Resources Conservation Guide*, which the National Tribal Water Council believes will be a valuable resource for Tribal Nations.

Our Tribal Nations' strength stems from their inherent authority in choosing how to protect their air, land, people and water. Access to specific information and technical assistance is essential when making these decisions. Using the U.S. Environmental Protection Agency's *Tribal Water and Natural Resources Conservation Guide*, Tribes will receive financial and technical assistance in developing and managing their own environmental protection programs. The guide offers Tribes with an extensive list or "inventory" of federal funding opportunities and technical assistance in six key conservation areas: air, climate change and other natural hazards, communities, lands, water, wildlife and habitat.

Finding the right funding opportunity is critical for Tribes in addressing their conservation and environmental needs and priorities. The guide helps Tribes achieve their goals by connecting them to federal funding sources that support program capacity, provide additional leveraging opportunities and build partnerships. It can also assist Tribes with program decisions by providing "Tips from Tribes," in which Tribes share their knowledge of how to effectively plan for, secure and manage federal funding to maximize program success.

The National Tribal Water Council sees the guide as a valuable resource for Tribes facing current and future environmental and conservation challenges. It will provide innovative scientific and technical support to Tribes that are starting or have recently started an environmental program, as well as Tribes that have already established strong regulatory programs. Most importantly, it empowers Tribes to make sovereign decisions about their own environmental self-determination.



<sup>\*</sup>National Tribal Water Council is a technical and scientific body created to assist the EPA, federally recognized Indian Tribes, including Alaska Native Tribes, and their associated Tribal communities and Tribal organizations, with research and information for decision-making regarding water issues and water-related concerns that impact Indian and Alaska Native Tribal members, as well as other residents of Alaska Native Villages and Indian Country in the United States.



## Message from the Federal Water Subcabinet Tribal Team

The Water Subcabinet, co-chaired by the Secretary of the Interior and the Administrator of the Environmental Protection Agency, was established by Executive Order 13956 in October 2020 and codified by the *Flood Level Observation, Operations and Decision Support Act* in December 2022 to improve coordination among federal agencies that engage in water-related matters, including water quantity, water quality and restoration activities, water infrastructure, water-based transportation and water forecasting. In response to Executive Order 13956, the Water Subcabinet identified the potential need for more effective and coordinated federal engagement with Tribal Nations. The Water Subcabinet Tribal Team\*, co-chaired by the EPA and the Bureau of Reclamation, was formed by the Water Subcabinet member agencies in 2022 to identify potential opportunities to leverage technical and financial resources across federal agencies to more effectively address water-related needs in Indian Country.

As the federal government continues to deliver and enhance technical and financial resources for Tribes, the need for coordination and collaboration has never been more critical. There is a continuing imperative that the federal government work diligently to better align and leverage their Tribal resources and programs rather than employ a “go it alone” or “siloed” perspective and mentality. To achieve the Water Subcabinet Tribal Team’s mission, this work includes looking across the federal government, including beyond water programs, to highlight strategies Tribes can employ to secure federal assistance to achieve their environmental goals.

The *Tribal Water and Natural Resources Conservation Guide*, developed with support from the Water Subcabinet Tribal Team, complements other recent federal initiatives, such as the [Access to Capital Clearinghouse](#), in highlighting federal assistance available to support Tribal environmental programs. In addition, through Tribal case studies, “Tips from Tribes” and “Tips from Feds” embedded throughout, the Guide provides a detailed “how to” perspective for Tribal staff working to navigate an everchanging myriad of federal resources. We hope this guide serves as a foundational resource for Tribal environmental programs seeking federal assistance opportunities.

\*Water Subcabinet Tribal Team member agencies include the Department of the Interior (Bureau of Reclamation, Bureau of Indian Affairs, U.S. Geological Survey, U.S. Fish and Wildlife Service), the U.S. Environmental Protection Agency, the U.S. Army Corps of Engineers, the U.S. Department of Agriculture (Natural Resources Conservation Service, Rural Development, Forest Service), Federal Emergency Management Agency, Indian Health Service and the National Oceanic and Atmospheric Administration.

Source: FWS



Youth from the Bishop Paiute Tribe hike to Elizabeth Lake in Yosemite National Park as part of the Firstbloom environmental education program. The youth observed native plants and animals in their natural environments. They also collected phenology data and conducted habitat restoration with help from U.S. Fish and Wildlife Service and National Park Service staff.

# 1. Introduction

In keeping with the federal government's [trust responsibility](#) to federally recognized Tribes, the U.S. government provides financial and technical assistance to Tribes consistent with applicable law and to the extent practicable. The U.S. government collectively manages hundreds of financial and technical assistance programs across multiple agencies that can support Tribally led efforts to conserve and restore natural resources.

As highlighted in [recent engagements](#) with the U.S. Environmental Protection Agency's Office of Water, Tribes face challenges, such as limited staff hours and a lack of experience preparing grant applications, when finding and securing federal assistance to build and sustain their environmental programs. To overcome funding caps in individual federal grant programs, Tribes must carefully design funding strategies to incrementally implement large conservation initiatives, such as restoring aquatic ecosystems through an iterative series of discrete projects. To help address these barriers, Tribes requested the EPA's support in identifying programs across the EPA and federal government that can supplement assistance available through the agency's *Clean Water Act* grant programs.

This resource guide complements other recent and ongoing directives and actions in the federal government, including [Executive Order 14008: Tackling the Climate Crisis at Home and Abroad](#) and [Executive Order 14112: Reforming Federal Funding and Support for Tribal Nations to Better Embrace Our Trust Responsibilities and Promote the Next Era of Tribal Self-Determination](#), to address barriers facing Tribes in their efforts to secure federal assistance.<sup>1</sup>

Specifically, this guide was developed to help environmental program managers and staff working within federally recognized Tribal governments (see [map](#)) learn how federal resources can support their work. This guide also includes case studies highlighting Tribes that have leveraged multiple sources of federal assistance to achieve their environmental program goals.



Source: USDA

Basket weaver Ramses King (of the Mississippi Band of Choctaw Indians) weaves river cane into a "double-weave" general use basket. His grandmother, great-aunts and aunts taught him how to weave, and he strives to maintain the tradition.

## Federally Recognized Tribes\*

This guide identifies federal assistance opportunities available to federally recognized Tribal governments. The Secretary of the Interior publishes an annual list of federally recognized Tribes in the [Federal Register](#). Note that some featured assistance programs offer wider eligibilities, such as Tribally owned businesses or state-recognized Tribe; please confirm eligibility options with the program contact before applying.

\*For purposes of this guide, the term "Tribe" means an Indian or Alaska Native Tribe, Band, Nation, Pueblo, Village or Community that the Secretary of the Interior acknowledges to exist as an Indian Tribe pursuant to Public Law 103-454, 108 Statute 4791, known as the *Federally Recognized Indian Tribe List Act of 1994*.

The following federal agencies offer programs or resources highlighted in this guide or in the inventory of funding programs. Links are provided to direct you to information about each agency's Tribal programs and to lists of national or regional contacts where available.

**AmeriCorps:** [Information](#)

**Consumer Financial Protection Bureau (CFPB):** [Information](#)

**National Aeronautics and Space Administration (NASA):** [Information](#)

**U.S. Department of Agriculture (USDA):** [Information](#)

- Natural Resources Conservation Service (NRCS): [Contacts](#)
- Farm Service Agency (FSA): [Contacts](#)
- U.S. Forest Service (USFS): [Contacts](#)
- Rural Development (RD): [Contacts](#)

**U.S. Department of the Army (DA):** [Information](#)

- U.S. Army Corps of Engineers (USACE): [Contacts](#)

**U.S. Department of Commerce (DOC):** [Information](#)

- Economic Development Administration (EDA): [Contacts](#)
- National Institute of Standards and Technology (NIST): [Contacts](#)
- National Oceanic and Atmospheric Administration (NOAA): [Contacts](#)

**U.S. Department of Energy (DOE):** [Information](#)

**U.S. Department of Interior (DOI):** [Information](#) and [contacts](#)

- National Park Service (NPS): [Contacts](#)
- U.S. Bureau of Indian Affairs (BIA): [Contacts](#)
- U.S. Fish and Wildlife Service (FWS): [Contacts](#)
- U.S. Geological Survey (USGS): [Contacts](#)
- U.S. Bureau of Reclamation (USBR): [Contacts](#)
- U.S. Bureau of Land Management (BLM): [Contacts](#)

**U.S. Department of Health and Human Services (HHS):** [Information](#)

- Center for Disease Control and Prevention (CDC): [Information](#)

**U.S. Department of Homeland Security (DHS):** [Information](#)

- Federal Emergency Management Agency (FEMA): [Contacts](#)

**U.S. Department of Housing and Urban Development (HUD):**  
[Information](#)

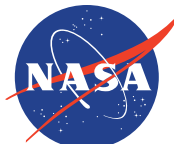
**U.S. Department of Transportation (DOT):** [Information](#)

- Federal Highway Administration (FHWA): [Information](#)
- Pipeline and Hazardous Materials Safety Administration (PHMSA): [Information](#)

**U.S. Environmental Protection Agency (EPA):** [Information](#) and [contacts](#)



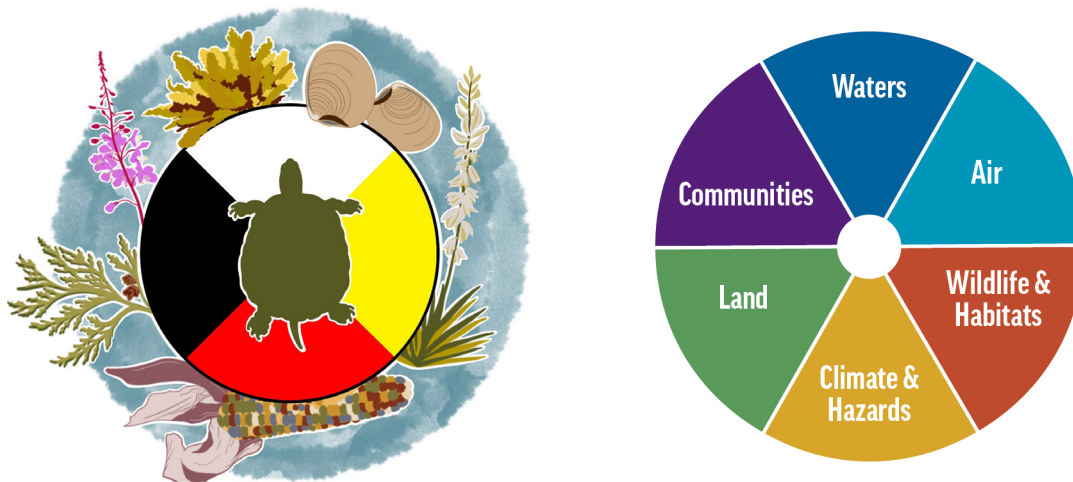
**AmeriCorps**



For a comprehensive list of federal agencies, see the [Index of U.S. Government Departments and Agencies](#).

## Scope and How to Use This Guide

This guide is a starting point for Tribal environmental program managers and staff to learn about federal resources, including funding, technical assistance and tools, which can help achieve Tribal program goals. The conservation topics covered in the following pages are relevant to the work led by staff across Tribal departments, including water quality, natural resources, fisheries, wildlife and agriculture (Figure 1-1). Moreover, as Tribal staff frequently wear multiple hats across programs and departments, this guide can support planning to combine assistance from multiple federal agencies to advance their work. Although this guide does not replace the sometimes-challenging work of securing federal assistance for your Tribe, we hope it begins to direct readers toward federal support that is best suited to your needs.



**Figure 1-1. Left image:** The illustration by Coral Avery (Shawnee Tribe) shows the interconnection of water, native species and Indigenous cultures stretching from the Pacific Islands to the U.S. East Coast. The medicine wheel symbolizes the health and prosperity of people and environment. Depending on the storyteller, the Turtle Island element symbolizes either North America or South America. Water surrounds the image because it sustains all life. (Source: USGS and C.B. Avery<sup>2</sup>)

**Right image:** Similarly, our guide is inspired by the Indigenous holistic worldview that all is connected: natural resources, lands, and peoples and their cultures. Our guide includes sections on six interconnected conservation topics highlighted as important by our Tribal workgroup members.

We encourage readers to use this guide as a jumping-off point to help target further research into the featured programs. Readers are encouraged to reach out to federal agency contacts with specific questions about the programs featured in this guide. Throughout the guide, you will find links to both federal and nonfederal websites that offer more details on specific topics and programs.

The guide is divided into the following chapters:

- [Chapter 2](#) features a primer on the types of federal funding assistance that can support Tribal conservation work and offers a snapshot of funding programs that are open only to Tribal applicants. The chapter also provides “Tips from Tribes” and “Tips from Feds” on how on how to plan for, secure and manage federal funding assistance.
- [Chapter 3](#) describes and lists examples of federal technical assistance resources that can support Tribal conservation work via training, planning assistance, etc.
- [Chapter 4](#) is divided into six conservation topic sections – (1) Protecting and Restoring Waters, (2) Protecting Air Quality, (3) Protecting Wildlife and Habitat, (4) Preparing for Climate Change and Natural Hazards, (5) Stewarding Lands and (6) Supporting and Engaging Tribal Communities – that highlight federal resources and Tribal case studies to inspire conservation efforts.
- [Chapter 5](#) provides concluding remarks and lists other federal interagency resource guides.

Source: Bishop Paiute Tribe



The Bishop Paiute Tribe hosts a youth education event on a Tribe-managed natural area.

## 2. Federal Financial Assistance to Support Tribal Conservation Work

[Federal financial assistance](#) is a broad term to refer to the various ways – via grants, cooperative agreements, loans, scholarships, insurance, etc. – that the U.S. government distributes resources to eligible recipients, consistent with [laws, regulations and guidance](#). This section introduces federal financial assistance types, provides an overview of steps to finding and managing federal grants, and discusses the inventory of Tribal conservation-related programs developed for this guide.

### Types of Federal Financial Assistance

The U.S. government publishes a detailed public description, or [assistance listing](#), for every federal program that provides grants, loans, scholarships, insurance or other types of assistance awards. As a starting point, visit [SAM.gov](#) to browse assistance listings across all government agencies. Your Tribe may be interested in one or more of the following assistance types to support conservation work.

#### Grants

A [grant agreement](#) is a legal instrument of financial assistance between a federal awarding agency or pass-through entity and a nonfederal entity designed to carry out a public purpose authorized by a law of the United States. Federal grants include:

- [Discretionary grant](#): a grant for which a federal agency selects the awardee, or grant recipient, based on merit and eligibility.
- [Mandatory \(nondiscretionary\) grant](#): a grant for which the allocation of federal funding to eligible entities is specified in the authorizing legislation and regulations. For example, formula grants to Tribes, states, territories or local units of government are based on predetermined formulas and not open to discretionary funding decisions.

#### Cooperative Agreements

Similar to a grant, a [cooperative agreement](#) is a legal instrument of financial assistance between a federal awarding agency or pass-through entity and a nonfederal entity to carry out a public purpose authorized by a law of the United States. However, unlike a grant agreement, a cooperative agreement provides for **substantial involvement** of the federal awarding agency or pass-through entity in carrying out the activity. For example, in a cooperative agreement, federal employees

#### Did You Know?

The federal fiscal year cycle runs from October 1 to September 30; for example FY2024 was October 1, 2023 to September 30, 2024. Federal funding opportunity numbers indicate the fiscal year in which the opportunity is open for applications. For example, the EPA's [FY2024 Clean Water Act Section 319 Tribal Competitive Grant Request for Applications](#) was posted in November 2023 under opportunity number EPA-OW-OWOW-24-01.

#### What is Federal “Pass-Through Funding”?

In addition to searching federal grant postings on [Grants.gov](#), your Tribal program should consider expanding the search for financial assistance to include federal “pass-through entities.” [Pass-through funding](#) refers to funds issued by a federal agency to a state agency or institution, i.e., the “prime recipient,” that are then transferred to other eligible groups, i.e., “subrecipients,” per the award eligibility terms. For example, the [National Fish and Wildlife Foundation](#) awards matching grants using federal funds provided by annual Congressional appropriations and agreements with federal agencies.

participate more closely in project activities, often working side-by-side with the grantee. Note: the term *grant* is often used to generally refer to both federal grants and cooperative agreements.

## Other Federal Financial Assistance Agreements

Some federal agencies offer alternative funding arrangements, such as conservation contracts and contribution agreements; for example, see USDA's [Regional Conservation Partnership Program](#). Tribes are encouraged to reach out to the relevant agency program contacts to investigate possible alternative financial assistance agreement types.

## Tribal Self-Governance Contracts and Agreements

Federally recognized Tribes may enter into [Public Law 93-638](#) contracts and agreements under the *Indian Self-Determination and Education Assistance Act* to plan, conduct and administer programs or portions of programs, including construction. Public Law 93-638 contracts and agreements allow Tribes to participate effectively and meaningfully in planning, conducting and administering federal programs intended to service Tribes. Federal funds received through Public Law 93-638 contracts and agreements are considered Tribal funds and may be used to meet matching or cost participation requirements under other federal and nonfederal programs. Federally recognized Tribes may also apply for the [Self-Governance Program](#). For more information on these programs, contact the federal Tribal liaison for the agency/program of interest.

### Forest Service: 638 Agreements

The USFS's [Tribal Forest Protection Act/638 Project Authority](#) website offers a webinar featuring the first agreement signed with the Tulalip Tribes in 2020, a questions-and-answers session video and many examples of 638 projects currently underway on Tribal lands.

Source: USDA Forest Service



Staff members from the Mescalero Apache Tribe and the New Mexico Natural Resources Conservation Service investigate an area of the reservation where the forest was thinned to help battle against wildfire and to improve downstream water quality.



## Steps to Finding and Managing Federal Grants

More than [20 federal agencies](#) award federal grants and cooperative agreements. [Grants.gov](#) centralizes more than 1,000 different grant programs across federal grant-making agencies awarding more than \$500 billion annually. The following steps outline the general elements of searching, applying for and managing federal grants. These steps are adapted from the [Grants.gov Grant Lifecycle Timeline](#). Note that procedures vary by agency, so please reach out to federal agency contacts with questions before applying.

In addition to training resources available at [Grants.gov](#), you can access agency-specific grants training resources, such as:

- [BIA Technical Assistance](#)
- [FEMA Grants Management Technical Assistance](#)
- [EPA Grants Management Training](#)

### Step 1. Define Your Needs

You can easily spend many hours searching and applying for federal assistance. Save time and resources by taking these initial steps, adapted from [BIA's Grant Writing Workshop](#), to refine your research:

- **Define your project** - What's the need? For example, do you need funding for new Tribal staff? What are your goals and objectives? What are the desired outcomes?
- **Identify your partners** - Who can you collaborate with to help advance your project and secure federal assistance?
- **Develop a funding strategy** - Estimate how much funding is needed and identify available funding/resources you and your partners will be able to provide to meet a potential match requirement. Where possible, divide large projects into discrete parts that can be implemented incrementally as funding allows.

### Step 2. [Pre-Award Phase](#) - Search and Apply for Funding Opportunities

- **Search for funds** - [Grants.gov](#) standardizes grant information, application packages and the processes for finding and applying for federal grants. Set reminders on your calendar or sign up for email alerts, as new opportunities are added often. Also see the Tribal-specific [Access to Capital Clearinghouse](#) for other listings.
- **Apply for funds** - In addition to your proposed workplan, federal agencies typically require several other forms as part of your application package. Federal application periods can be as short as a few weeks, so before getting started be sure you have enough time to complete and submit all required forms by the deadline. Need more information? See [How to Apply for Grants: Getting Started](#).

*Note:* As required by 2 Code of Federal Regulations Part 25, any entity wishing to do business with the federal government must register in [SAM.gov](#) and obtain a Unique Entity Identifier. This may take a few weeks to finalize, so plan ahead to complete this task before the application period opens.



#### Tips from Tribes

*Advice from Tribal workgroup members*

- Projects go in stages, so be prepared. Apply for a planning grant first so you're ready to implement a project when that time comes.
- Account for the time needed to get approval from your Tribal leadership. Allow at least a month for review.
- Before applying for funding, ensure your Tribe has the necessary staff or can find a contractor to help carry out the projects. Build and maintain relationships with reliable contractors.
- Stay organized in case of staffing turnover. Document all projects and procedures.
- Partner with local universities. They can research complicated issues, provide technical expertise, offer university student staffing assistance and even help with grant writing.
- Consider hiring consulting firms to help with technical issues.

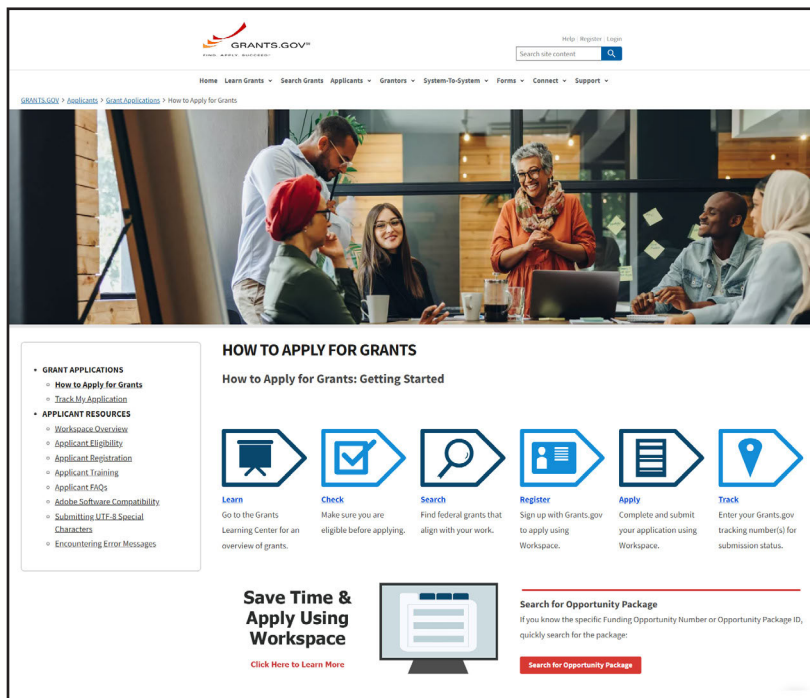
## Step 3. [Award Phase](#) – Accepting Federal Assistance

When an agency selects your grant application for award, it prepares and sends an award agreement. You then review the award agreement, including the grant scope of work and the terms and conditions, to confirm that you concur with all the information. When you or your organization accepts the grant, you become legally obligated to carry out the full terms and conditions of the grant. As an award recipient, you are also subject to federal statutory and regulatory requirements and policies.

## Step 4. [Post-Award Phase](#) – Managing a Federal Grant

Finally, you can get to work! The post-award phase includes implementing the grant, reporting progress and completing the closeout requirements. The federal agency that makes the award to you typically has a grants management officer and program officer assigned to each grant, and you will work with both throughout the life of the grant. At the end of your project, **closeout** refers to the process used by the awarding agency to ensure you have completed all the required technical work under a grant and to confirm that all applicable financial and administrative requirements have been met.

*Note:* When applying for federal grants in the future, you may be asked to share information about your past performance under previous assistance agreements, so it is helpful to keep these records in one place!



The screenshot shows the Grants.gov website interface. At the top, there is a navigation menu with links for Home, Learn Grants, Search Grants, Applicants, Grantors, System-To-System, Forms, Contact, and Support. A search bar is located in the top right corner. Below the navigation is a large image of a diverse group of people in a meeting. Underneath the image is a section titled 'HOW TO APPLY FOR GRANTS' with the subtitle 'How to Apply for Grants: Getting Started'. This section contains six icons with corresponding text: 'Learn' (Go to the Grants Learning Center), 'Check' (Make sure you are eligible before applying), 'Search' (Find federal grants that align with your work), 'Register' (Sign up with Grants.gov), 'Apply' (Complete and submit your application), and 'Track' (Enter your Grants.gov tracking number(s)). To the left of this section is a sidebar menu with categories like 'GRANT APPLICATIONS' and 'APPLICANT RESOURCES'. At the bottom of the screenshot, there is a 'Save Time & Apply Using Workspace' button and a 'Search for Opportunity Package' button.

The [Grants.gov](#) website provides grant application guidance.



### Tips from Feds

*Advice from federal workgroup members*

#### Are you preparing to apply?

- Participate in grant management training.
- Reach out to technical assistance providers. They can help you identify projects and teach you how to stack federal grants to support them.
- Letters of support from project partners are important.
- Build relationships with state and federal partners. They can guide you to new opportunities.
- Requests for applications are only open for a brief time (45–60 days), so start your research early and be ready to act.

#### Are you applying?

- Read the Notice of Funding Opportunity information carefully before drafting your application.
- Confirm the page limit and stick to it. Reviewers are not permitted to read pages beyond the limit.
- Check the funding program to confirm your eligibility. Reach out to the agency with questions.
- Many federal programs require lower or zero matching funds from Tribes. Account for that when applying.
- If your application is unsuccessful, request a debriefing to find out why. You'll receive information to help you succeed next time!

#### Are you managing an award?

- Once you receive an award, keep detailed information in your files so you can meet regulations, track and report your progress, and more easily pursue similar projects later.
- Reach out to your agency contact with questions or concerns.

## Federal Funding Program Inventory Overview

Federal agencies offer many funding programs that can support Tribal conservation work, including programs open only to Tribes and programs open to multiple applicant types, including Tribes. These programs support a range of diverse project types; for example, the BIA's [Tribal Tourism Grant Program](#) and USDA's [Rural Decentralized Water Systems Grant Program](#) support economic development and water quality protection projects, respectively. Please visit the [Tribal Water and Natural Resources Conservation Guide website](#) for a downloadable spreadsheet containing information about more than 150 federal funding programs from 13 federal agencies relevant to one or more of the conservation topics covered in this guide: (1) water, (2) air, (3) wildlife and habitat, (4) climate change and natural hazards, (5) lands and (6) communities.

To help Tribal environmental programs get started in searching for funding opportunities, the conservation topic sections in Chapter 4 of this guide spotlight 28 federal funding programs included in the supplemental funding inventory spreadsheet. In addition, you will find federal funding programs highlighted in Tribal case studies throughout this guide.

**Please note** that the guide and the online inventory spreadsheet documents are static; although they may be updated in the future, some links or programs will become obsolete as time passes and programs change.

### Tribal-Specific Federal Funding Programs

The U.S. government manages assistance programs open to many applicant types, as well as Tribal-specific programs. Tribal-specific programs include those available only to Tribes, such as FWS [Tribal Wildlife Grants](#), as well as programs with a predetermined dedicated amount of funds reserved, or “set aside,” for Tribes, such as the EPA CWA [Section 319 Grant Program](#). Table 2-1 provides a list of grant programs that are open only to Tribal applicants.

### Looking Beyond Federal Sources

Various nonfederal options are available to support natural resources protection projects, including:

- **Grants from Indigenous-focused organizations:** Organizations that are dedicated to supporting Indigenous conservation efforts often offer funding. *Examples:* [Indigenous Environmental Network](#); [Native American Fish and Wildlife Society](#)
- **Nonprofit organizations:** Various nonprofit organizations and foundations focus on environmental and conservation efforts, including those related to Tribal lands. *Examples:* Candid's [Investing in Native Communities](#); The First Nations Development Institute's [Grantseeker Resource](#); the [National Fish and Wildlife Foundation](#)
- **State and local grants:** Depending on the location of Tribal lands, Tribes may be eligible for state or local grants aimed at conservation and environmental protection. *Example:* CalEPA [Tribal Funding](#)
- **Private sector investments:** Some Tribes seek private sector investments or partnerships for conservation projects, especially those related to sustainable resource management, ecotourism or renewable energy.
- **Partnerships and collaborations:** Tribes can work on projects with neighboring Tribes, government agencies, universities and private companies. These partnerships can often bring added funding and resources. *Example:* [Arizona State University](#)

**Table 2-1. Tribal-specific federal funding assistance programs<sup>a</sup>, which include Tribe-only programs or programs with dedicated Tribal set-aside funds.**

Program name	Agency <sup>b</sup>	Conservation topics <sup>c</sup>					
		Waters >>	Air >>	Wildlife & Habitats >>	Climate & Hazards >>	Land >>	Communities >>
<a href="#">Alaska Subsistence Program</a>	BIA	✓		✓		✓	✓
<a href="#">Building Resilient Infrastructure and Communities<sup>d</sup></a>	FEMA	✓		✓	✓	✓	✓
<a href="#">Clean Air Act Section 103 Grants for Tribes<sup>d</sup></a>	EPA		✓				✓
<a href="#">Clean Air Act Section 105 Grants for Tribes<sup>d</sup></a>	EPA		✓				✓
<a href="#">Clean Water Indian Set-Aside Grant Program</a>	EPA	✓			✓	✓	✓
<a href="#">Conservation Law Enforcement Officer</a>	BIA	✓				✓	✓
<a href="#">Diesel Emission Reduction Act: Tribal and Territory Grants<sup>d</sup></a>	EPA		✓				
<a href="#">Endangered Species Program</a>	BIA	✓		✓		✓	
<a href="#">Forest Management Plans</a>	BIA		✓		✓	✓	
<a href="#">Hatchery Maintenance Program</a>	BIA	✓					✓
<a href="#">Hazardous Materials Emergency Preparedness Tribal Grant</a>	PHMSA				✓		✓
<a href="#">Indian Environmental General Assistance</a>	EPA	✓	✓		✓	✓	✓
<a href="#">Invasive Species Program</a>	BIA	✓		✓		✓	✓
<a href="#">Landscape Scale Restoration Grant Program for Tribes and Alaska Native Corporations/Villages</a>	USFS	✓		✓	✓	✓	✓
<a href="#">National Native American Graves Protection and Repatriation Act Program</a>	NPS					✓	✓
<a href="#">Native American Affairs Technical Assistance</a>	USBR	✓		✓	✓	✓	✓
<a href="#">Native American Tribal Loans</a>	FSA			✓	✓	✓	✓
<a href="#">Small, Underserved and Disadvantaged Communities Grant Program<sup>d</sup></a>	EPA	✓			✓		✓
<a href="#">Species Recovery Grants to Tribes</a>	NOAA	✓	✓	✓	✓	✓	✓
<a href="#">State and National Native Nations Grants<sup>d</sup></a>	AmeriCorps	✓		✓	✓	✓	✓

**Table 2-1. Tribal-specific federal funding assistance programs<sup>a</sup>, which include Tribe-only programs or programs with dedicated Tribal set-aside funds. (continued)**

Program name	Agency <sup>b</sup>	Conservation topics <sup>c</sup>					
		Waters >>	Air >>	Wildlife & Habitats >>	Climate & Hazards >>	Land >>	Communities >>
<a href="#">Tribal Climate Resilience Annual Awards</a>	BIA	✓	✓	✓	✓	✓	✓
<a href="#">Tribal CWA Section 106 Grants<sup>d</sup></a>	EPA	✓		✓	✓		✓
<a href="#">Tribal CWA Section 319 Grants<sup>d</sup></a>	EPA	✓		✓	✓	✓	✓
<a href="#">Tribal Heritage Grants</a>	NPS			✓		✓	✓
<a href="#">Tribal Historic Preservation Office Grants</a>	NPS	✓		✓	✓	✓	✓
<a href="#">Tribal Partnership Program</a>	USACE	✓		✓	✓	✓	✓
<a href="#">Tribal Practices for Wellness in Indian Country</a>	CDC				✓	✓	✓
<a href="#">Tribal Public Health Capacity Building and Quality Improvement</a>	CDC				✓		✓
<a href="#">Tribal Public Water System Supervision</a>	EPA	✓			✓		✓
<a href="#">Tribal Tourism Grant Program</a>	BIA						✓
<a href="#">Tribal Wetland Program Development Grants<sup>d</sup></a>	EPA	✓		✓	✓	✓	✓
<a href="#">Tribal Wildlife Grants</a>	FWS			✓		✓	✓
<a href="#">Tribal Youth Initiative Program</a>	BIA	✓		✓	✓	✓	✓
<a href="#">Trust Land Consolidation</a>	BIA					✓	✓
<a href="#">Water Management, Planning and Pre-Development Program</a>	BIA	✓			✓		
<a href="#">Water Rights Negotiation and Litigation Program</a>	BIA	✓		✓	✓	✓	✓

Notes:

<sup>a</sup> Program eligibility varies. Please consult agencies for confirmation before applying.

<sup>b</sup> Acronyms are defined at the beginning of this guide.

<sup>c</sup> Conservation topics refer to the six areas of focus explored in Chapter 4 of this guide.

<sup>d</sup> This funding program includes a designated funding amount open only to Tribal applicants (Tribal set-side funds).

Source: EPA



Mooney Falls is on the Havasupai Tribe's land.

## 3. Federal Technical Assistance to Support Tribal Conservation Work

[Technical assistance](#) is a category of activities undertaken by federal agencies to build communities' capacity to develop fundable projects that address community priorities, navigate federal programs and apply for and deploy federal resources. Technical assistance can focus on various elements of a project lifecycle – some technical assistance programs are focused on helping Tribal and other communities apply for and access federal funding, while others are more focused on helping communities plan, design and build projects after funding has been secured.

### Types of Technical Assistance

Federal technical assistance programs can be categorized as direct and indirect technical assistance.



**Direct technical assistance:** Includes technical support that is generally provided on a one-on-one basis, with assistance tailored to address the specific needs of individual grant recipients. For example, [FEMA's Non-Financial Direct Technical Assistance Program](#) provides resources to grant seekers and recipients of the Building Resilient Infrastructure and Communities grant program.



**Indirect technical assistance:** Includes federal resources that are targeted to a broader audience, often via financial assistance that can be used by the grant recipient for nonfederal grant management assistance. Indirect technical assistance includes:

- **Federal grant program-wide indirect technical assistance.** These tools are developed by federal agencies for a wide audience of stakeholders. For example, Chapter 4 of this guide provides examples of federal planning frameworks, datasets and tools that can support Tribal conservation work.
- **Project-specific indirect technical assistance.** Some agencies allow individual grant recipients to use a portion of the awarded grant funds to cover expenses relating to technical assistance. For example, Tribal recipients may use a portion of an [EPA CWA Section 319 Competitive Grant](#) for the planning and design of their on-the-ground project to manage nonpoint source water pollution.

Source: A. Lind-Null, USGS



Members of the Nisqually Tribe work with the FWS to seine nearshore habitat in a Pacific Northwest waterway.



## Technical Assistance Resource Spotlights

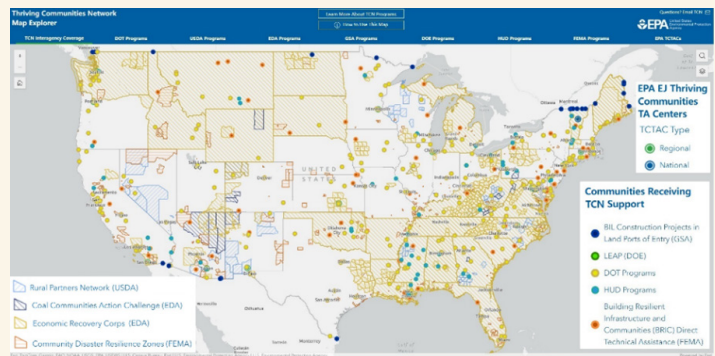
The following four federal technical assistance resources help inform and support Tribal natural resource conservation efforts.

### EPA-Funded Tribal Exchange Network Group

The [Tribal Exchange Network Group](#) is an EPA-funded Tribal partnership of natural resource professionals and Tribal partners focused on building Tribal capacity through education, innovation and information exchange.

### Interagency Thriving Communities Network

The [Thriving Communities Network](#) is a federal interagency effort to coordinate place-based technical assistance and capacity-building resources for Tribal and other communities experiencing a history of economic distress (see [map](#) for locations and projects). For example, the [EPA](#) and [DOE](#) are collaborating on national and region Environmental Justice [Thriving Communities Technical Assistance Centers](#), which provide training and other assistance to help Tribes and others identify grant opportunities, prepare federal grant applications, manage grant funding, effectively engage with decision-makers and develop community-based partnerships. Participating agencies commit to make technical assistance programs available through the Thriving Communities Network, such as:



The Thriving Communities Network has partnerships and projects underway across the United States.

- DOE's [Communities Local Energy Action Program](#)
- DOT's [Thriving Communities Program](#) and [Reconnecting Communities and Neighborhoods Program](#)
- EDA's [Economic Recovery Corps](#)
- FEMA's [Building Resilient Infrastructure and Communities Direct Technical Assistance](#) and [Capability- and Capacity-Building Activities](#)
- HUD's [Thriving Communities Technical Assistance](#)
- USDA's [Rural Partners Network](#)

### USGS Technical Support and Training

USGS provides technical and research assistance and helps build capacity through training. For example, the [Technical Training in Support of Native American Relations](#) provides tools and training to help Tribes manage their natural resources. Also, the National and Regional Climate Adaptation Science Centers offer [professional development](#) and [Tribal engagement](#) opportunities.

### White House Technical Assistance Guidance

This [technical assistance](#) webpage provides information about more than 100 federal technical assistance programs and some sources of [state-directed technical assistance](#). Although developed to support programs specifically funded under the *Bipartisan Infrastructure Law* and *Inflation Reduction Act* and could include some short-term programs, the guide offers detailed information for many ongoing programs.



USGS staff describe sediment collection devices for a Tribal training class.

Source: USGS



## Agency-Specific Technical Assistance Resources

Varied technical assistance resources are available across the federal government. Individual agencies often maintain technical assistance-specific webpages to guide visitors to the resources they provide, such as:

- BIA [Technical Assistance](#)
- DOE [Technical Assistance](#)
- DOT [Technical Assistance](#)
- EDA [Technical Assistance](#)
- FEMA [Technical Assistance](#)
- FWS [Technical Assistance](#)
- NASA [Indigenous Peoples Initiative](#)
- NOAA Fisheries [Technical Assistance](#)
- NRCS [Conservation Technical Assistance](#)
- USACE [Technical Assistance](#)
- USBR [Technical Assistance](#)

Technical assistance activities offered by federal agencies can help Tribes build capacity to support their efforts to navigate federal programs, apply for and deploy federal resources and develop fundable projects that address goals. Table 3-1 lists Tribal-specific federal technical assistance programs and opportunities that are open only to Tribal applicants as of fall 2024. Table 3-2 lists programs that are available to a wider range of applicants such as Tribes, nonprofit groups and others.

**Table 3-1. Federal technical assistance programs available only to Tribal applicants.<sup>a</sup>**

Program name	Agency <sup>b</sup>	Conservation topics <sup>c</sup>					
		Waters >>	Air >>	Wildlife & Habitats >>	Climate & Hazards >>	Land >>	Communities >>
<a href="#">Building Resilient Infrastructures and Communities</a>	FEMA				✓		✓
<a href="#">Forest Management Plans</a>	BIA	✓				✓	✓
<a href="#">Indigenous Peoples Initiative</a>	NASA	✓		✓	✓	✓	✓
<a href="#">MUREP for American Indian and Alaska Native STEM Engagement</a>	NASA						✓
<a href="#">National Tribal Waste Management Peer Matching Program</a>	EPA		✓	✓	✓	✓	✓
<a href="#">Native American Affairs Technical Assistance Program</a>	USBR	✓		✓	✓	✓	✓
<a href="#">Technical and Business Advisory Services for Energy and Mineral Projects</a>	BIA					✓	✓
<a href="#">Tribal Climate Resilience</a>	BIA				✓		✓
<a href="#">Tribal Partnership Program</a>	USACE	✓					✓
<a href="#">Tribal Technical Assistance Program</a>	FHWA						✓

Notes:

<sup>a</sup> Program eligibility varies. Please consult agencies for confirmation before applying.

<sup>b</sup> Acronyms are defined at the beginning of this guide.

<sup>c</sup> Conservation topics refer to the six areas of focus explored in Chapter 4 of this guide.

**Table 3-2. Federal technical assistance programs open to Tribal applicants and others.<sup>a</sup>**

Program name	Agency <sup>b</sup>	Conservation topics <sup>c</sup>					
		Waters ≥	Air ≥	Wildlife & Habitats ≥	Climate & Hazards ≥	Land ≥	Communities ≥
<a href="#">Agricultural Management Assistance Program</a>	NRCS	✓	✓		✓	✓	
<a href="#">Assistance to Improve Water Quality and Enable Small Public Water Systems</a>	EPA	✓			✓		✓
<a href="#">Building Blocks for Sustainable Communities</a>	EPA	✓	✓	✓	✓	✓	✓
<a href="#">Circuit Rider Program: Technical Assistance for Rural Water System</a>	RD	✓			✓		✓
<a href="#">Climate Change Response Framework</a>	USFS	✓	✓	✓	✓	✓	✓
<a href="#">Climate Ready Workforce for Coastal Great Lakes States, Tribes and Territories Initiative</a>	NOAA				✓		✓
<a href="#">College/Underserved Community Partnership Program</a>	EPA						✓
<a href="#">Community Assistance Recovery Support Function</a>	FEMA				✓		✓
<a href="#">Community-Based Habitat Restoration</a>	NOAA			✓		✓	
<a href="#">Community Navigators Program</a>	USFS					✓	
<a href="#">Community Resilience Program</a>	NIST				✓		✓
<a href="#">Conservation Stewardship Program</a>	NRCS			✓		✓	
<a href="#">Conservation Technical Assistance</a>	NRCS	✓	✓	✓	✓	✓	✓
<a href="#">Continuing Authorities Program</a>	USACE	✓		✓	✓	✓	
<a href="#">Cooperative Forestry</a>	USFS			✓		✓	
<a href="#">Dealing with Disasters and Emergencies</a>	CFPB				✓		✓
<a href="#">Emergency Conservation Program</a>	FSA	✓			✓	✓	
<a href="#">Emergency Haying and Grazing of Conservation Reserve</a>	FSA	✓		✓		✓	
<a href="#">Environmental Justice Thriving Communities Technical Assistance Centers</a>	EPA						✓
<a href="#">Environmental Quality Incentives Program</a>	NRCS	✓	✓	✓	✓	✓	
<a href="#">Flood Plain Management Services</a>	USACE	✓			✓	✓	
<a href="#">Forest Health Protection</a>	USFS			✓	✓	✓	
<a href="#">Grassroots Source Water Protection Program</a>	FSA	✓		✓	✓	✓	✓

**Table 3-2. Federal technical assistance programs open to Tribal applicants and others.<sup>a</sup> (continued)**

Program name	Agency <sup>b</sup>	Conservation topics <sup>c</sup>					
		Waters >>>	Air >>>	Wildlife & Habitats >>>	Climate & Hazards >>>	Land >>>	Communities >>>
<a href="#">National Earthquake Hazards Reduction Program</a>	NIST				✓		
<a href="#">National Estuarine Research Reserve System Coastal Training Programs</a>	NOAA	✓		✓	✓	✓	✓
<a href="#">National Windstorm Impact Reduction Program</a>	NIST				✓		✓
<a href="#">Partners for Fish and Wildlife</a>	FWS	✓		✓		✓	✓
<a href="#">Planning Assistance to States Program</a>	USACE	✓		✓	✓	✓	✓
<a href="#">Rivers, Trails and Conservation Assistance Program</a>	NPS	✓		✓		✓	✓
<a href="#">Shellfish Aquaculture</a>	NOAA	✓		✓			✓
<a href="#">Technical Assistance and Training for Small and Rural Treatment Works</a>	EPA	✓			✓		✓
<a href="#">Technical Assistant Services for Communities</a>	EPA						✓
<a href="#">Water Infrastructure and Resiliency Finance Center</a>	EPA	✓					✓
<a href="#">Water Technical Assistance Programs</a>	EPA	✓			✓		✓

Notes:

<sup>a</sup> Program eligibility varies. Please consult agencies for confirmation before applying.

<sup>b</sup> Acronyms are defined at the beginning of this guide.

<sup>c</sup> Conservation topics refer to the six areas of focus explored in Chapter 4 of this guide.

Photo: Lance Cheung, USDA



Elk crossing the Quillayute River near the Quileute Indian Reservation.

## “Mother Earth”

by Devon Borkowski, Rappahannock Tribe



Devon Borkowski’s painting, *Mother Earth*, depicts Native stewardship of the natural world, shown through an Indigenous mother caring for the earth as her own baby. Devon created the painting for an Indigenous food sovereignty and food justice event and submitted it to the BIA’s [2024 Young Tribal Leaders Art Contest](#). Devon’s painting was one of 23 selected to exhibit online and at the main Department of Interior building in Washington, DC. (Source: BIA, with permission from [Devon Borkowski](#))

## 4. Conservation Topic Areas

### Introduction

Approximately 56.2 million acres are held in trust by the United States for various federally recognized Tribes and individuals.<sup>3</sup> About 326 Indian land areas are administered as federal Indian reservations, each with a unique set of natural resources. Many Tribes practice sustainable natural resource management, often guided by Indigenous Knowledge, and understand the interconnectedness of the natural world – air, water, land and wildlife – and the role humans play in protecting each precious resource. Tribes often also recognize the new challenges brought by a changing climate, and many are working to overcome or adapt to them. Additionally, varied obstacles can accompany these challenges, including a lack of data, funding, communication, technical knowledge and more. This guide helps to connect Tribes with the funding information, tools and resources needed to address each area of natural resources concern.



### Conservation Topic Areas

Each of the following six sections focuses on federal programs and other resources that support Tribes' protection of a specific conservation topic area.

1. **Protecting and Restoring Waters:** Resources that help protect freshwater and coastal/marine water quality and quantity.
2. **Protecting Air Quality:** Resources that help protect air quality and reduce the associated health and water pollution problems.
3. **Protecting Wildlife and Habitat:** Resources that help ensure healthy wildlife.
4. **Preparing for Climate Change and Other Natural Hazards:** Resources that can increase Tribes' resiliency to climate change and associated natural hazards, such as flood, drought and fire.
5. **Stewarding Lands:** Resources that help ensure healthy agricultural, forested and urban lands.
6. **Supporting and Engaging Communities:** Resources that help enhance Tribal communities' connection to environmental resources, natural places and each other.

#### Joint Secretarial Order Enhances Tribal Support

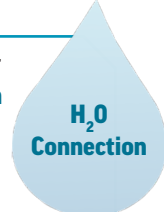
In 2022, the Secretaries of Agriculture, Interior and Commerce signed [Joint Secretarial Order 3403](#) to ensure their respective agencies are managing federal lands and waters in a manner that considers the treaty, religious, subsistence and cultural interests of federally recognized Tribes. This policy protects Tribal interests, improves collaboration and reinforces the federal government's obligation to uphold its trust responsibility to Tribes.

Together, the departments of the Interior, Agriculture and Commerce have been putting in place policies, infrastructure and agreements to usher in a new era of Tribal co-stewardship of public lands and waters. Each agency reports annually on their progress under the policy; see DOI's [first](#) and [second](#) annual reports.

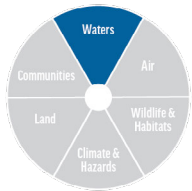
## Conservation Topic Featured Elements

Each conservation topic section is presented consistently, with the same heading and general layout but with different details for each. We recognize that many subject areas overlap, so we highlighted resources and Tribal examples that could be particularly useful for addressing concerns or problems in that conservation topic area. Each of the next six sections includes the following information:

- **Federal Planning Frameworks:** Includes descriptions and links to federal planning frameworks that Tribes can use to identify problems and develop strategies and projects. Relevant Tribal examples are provided when available.
- **Technical Assistance Resource Spotlights:** Includes descriptions and links to federal tools that Tribes can use to assess problems, support project planning and implementation, build capacity and inform Tribal members. Tool types vary and include links to mapping resources, data, websites and documents.
- **Including Indigenous Knowledge:** Explores examples of Tribes using Indigenous Knowledge in natural resources management decisions, working alone and in concert with information provided by federal agencies and others.<sup>4</sup> Indigenous Knowledge refers to a body of observations, oral and written knowledge, innovations, practices and beliefs that have been developed by Tribes and Indigenous Peoples through interaction and experience with the environment.
- **Changing Climate:** Presents example resources that can help Tribes adjust to the effects of climate change in each conservation topic area. We recognize that climate change influences all conservation topic section areas. Climate change effects include intensifying rainfall and floods, expanding droughts and shifting weather patterns. These changes affect the quantity and quality of freshwater resources, the incidence of natural hazards such as wildfire, the productivity of land and the location and quality of wildlife and plant habitats. Underserved and overburdened communities often face disproportionate risks and impacts from climate change.
- **Tribal Case Study:** Features a case study of a Tribal project specific to that topic area. The case study highlights innovative partnerships, best practices and the sources of funding used.
- **Federal Funding Assistance Programs Spotlight:** Provides a closer look at a handful of federal funding programs that are either commonly used to fund projects in that topic area or have untapped potential for supporting Tribal efforts. All federal programs highlighted are available only to federally recognized Tribes unless otherwise noted in the listing.
- **Resource Links:** Lists helpful links from other federal and nonfederal sources.



Keep an eye out for the **H<sub>2</sub>O Connection** water droplets, which highlight hydrologic links between water and other conservation topics!



## Protecting and Restoring Waters

### Introduction

Since time immemorial, Tribes have played an important role in protecting water resources used for recreation, transportation, fishing, aquaculture, drinking water, ceremonial purposes and more.<sup>5</sup> Federal programs and tools are available to help Tribes develop and implement programs to protect freshwater and coastal/marine water quality and quantity. Programs support:

- Water and watershed management, including conducting assessments, planning and monitoring
- Pollution control, including installing structural, management and educational best practices
- Source water protection
- Water rights protection
- Wastewater management, including onsite wastewater systems and support for innovative treatment such as biological nutrient removal for larger systems



Source: USGS

A USGS technician shows a member of the Santa Ana Pueblo how to use an isokinetic sampler on the Canadian River in Oklahoma.

## Example Federal Planning Frameworks to Protect and Restore Waters

### U.S. Army Corps of Engineers

- [Planning Assistance to States](#), as authorized by the *Water Resources Development Act* of 1974 Section 22, assists states, local governments, Tribes and other nonfederal entities with preparing comprehensive plans for developing, using and conserving water and related resources of drainage basins, watersheds or ecosystems.
- [Watershed assessments](#), developed under WRDA Section 729 authorization, use a single-phase approach starting with the signing of a cost-share agreement focusing on integrated water resources management. A watershed management plan is developed and includes recommended actions to be implemented either by the USACE or other watershed stakeholders. *Examples:* [West Maui Watershed Study](#); [Wolastoq Watershed Assessment and Management Plan](#)

### U.S. Bureau of Reclamation

- [WaterSMART Basin Studies](#) help assess water supplies and identify strategies to meet demands to ensure water supply reliability. These watershed-based plans consider water and power resources and infrastructure performance under changing water supply and demand conditions. They also help develop strategies to meet current and future water needs and include a trade-off analysis of the strategies. *Examples:* [Colorado River Basin Study and others](#)
- [WaterSMART Cooperative Watershed Management Program](#) studies help diverse groups such as Tribes, private property owners, nonprofit groups and government agencies collaborate to address water management needs via watershed restoration planning and management project design. *Examples:* [The Chickasaw Nation](#); [others](#)

### U.S. Environmental Protection Agency

- [CWA Section 319 Program watershed-based plans](#) provide an analytic framework for managing efforts to restore water quality and protect watershed health. The plans address nonpoint source pollution by identifying the pollutants and the management measures to address them. *Example:* [Prairie Band Potawatomi Nation](#)
- [Source water protection plans](#), also called wellhead protection plans, identify and prioritize long-term management strategies to protect a community's drinking water sources. They pinpoint critical groundwater and surface water resources. They note the potential contaminants and the risks they pose and develop strategies to address the risks. These efforts often overlap with watershed planning efforts. *Example:* [Shakopee Mdewakanton Sioux Community](#)



## Technical Assistance Resource Spotlights

### How's My Waterway

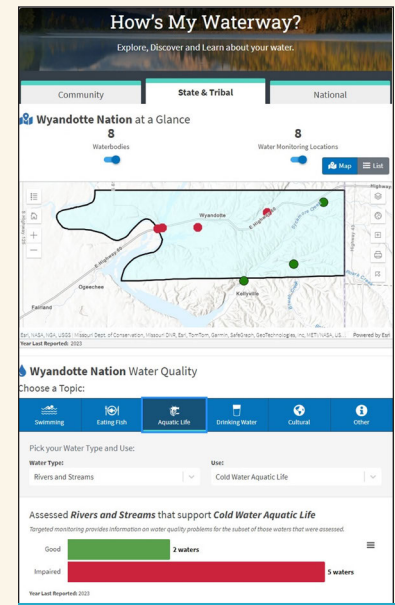
The EPA's [How's My Waterway](#) tool provides an accessible and understandable picture of water quality at a Tribal scale with data that Tribal, state, federal and local agencies and others have provided to the EPA. Using a desktop or mobile device, learn about the health of local waters and what's being done to restore or protect them.

### Water Quality Portal

The [Water Quality Portal](#) provides access to U.S. water quality data. This cooperative service integrates publicly available water quality data from over 400 state, federal, Tribal and local agencies.

### Measuring, Assessing and Monitoring Water

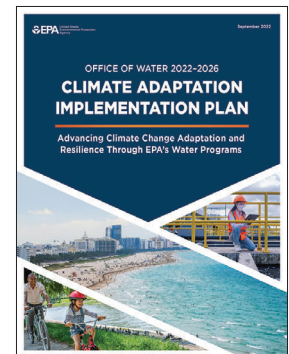
The USGS's [Measuring and Monitoring Water](#) website provides information and links to tools to assist with water quality monitoring. Tools include the [USGS National Water Dashboard](#), an interactive map to access real-time water data from over 13,500 gauge stations nationwide, and the [USGS Water Data for the Nation](#), a dashboard for groundwater and surface water data collected at approximately 1.9 million sites. The USGS's [Water Quality After Wildfire](#) webpage helps communities understand how wildfire can affect their water resources.



Five segments on the Wyandotte Nation reservation are impaired for cold water quality life use. Additional tabs show the status of these waters for other uses.

## Protecting and Restoring Waters in a Changing Climate

- [Chapter 4](#) of the *Fifth National Climate Assessment*, or NCA5, focuses on climate change's effects on water resources and the people depending on them.
- The EPA's Office of Water 2022 - 2026 [Climate Adaptation Implementation Plan](#) describes how the agency and its partners are advancing climate change adaptation and resilience through the EPA's water programs.
- The USDA's [2021 Action Plan for Climate Adaption and Resilience](#) includes a section on climate change threats to water quantity and quality.



Resources like the EPA's plan can provide ideas for Tribal projects.

## Including Indigenous Knowledge in Protecting and Restoring Waters

The Tribes and First Nations of the Yukon River, working together through the Yukon River Inter-Tribal Watershed Council, have developed the [Yukon River Watershed Plan](#) to protect and improve the water quality in the Yukon River. The watershed plan aims to ensure the Yukon River will sustain future generations of people, fish, wildlife and plants. The plan combines the best of modern science and policy with the Indigenous Knowledge of the people and governments of the Yukon River Tribes, and it includes specific, enforceable standards to protect the river's quality, quantity and flow. Since 2006, the Council and Yukon River Basin communities have partnered with the USGS to collect high-quality environmental data about the water quality and landscape changes; see the [USGS/Indigenous Observation Network website](#). The Council has also worked with Tribes to develop [Water Resilience and Climate Adaptation Strategies](#) that focus on an intergenerational approach for combining Indigenous Knowledge and Western science. These strategies will guide future water protection and conservation efforts.



## Tribal Case Study

### Bishop Paiute Tribe: Supporting Wetland Habitats with Multiple Funding Sources



The [Bishop Paiute Tribe](#) actively manages 25 acres of wetland habitat known as the [Conservation Open Space Area](#), originally established as a mitigation area to offset impacts from development. The Tribe has received several federal grants to help monitor and restore the area to introduce the federally listed endangered Owens pupfish, a culturally important fish species for the Tribe. Currently, the area is now home to pupfish and other native fish and plants like the hybridized tui chub, Owens sucker, Owens speckled dace, Nupitchi and the Owens Valley checkerbloom.

The Tribe launched its water quality program in 1998 with help from the EPA's CWA Sections [106](#) (water pollution control) and [319](#) (nonpoint source pollution) programs. The Tribe developed an ambient water quality monitoring program, water quality standards and a watershed-based plan and has restored waters impaired by invasive species and nonpoint source pollution. Grants from the EPA's CWA Section 319 Competitive Grant Program have helped the Tribe restore critical areas along Bishop Creek.

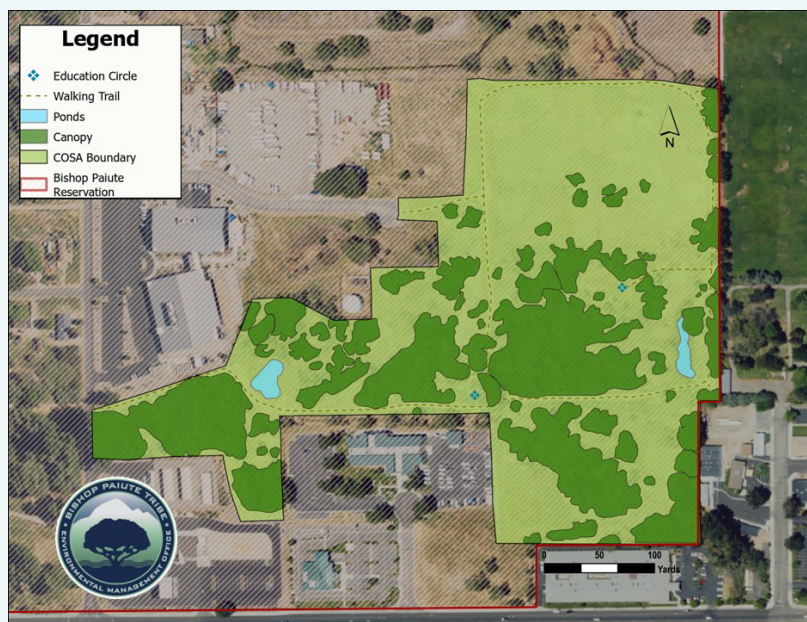


Source: Bishop Paiute Tribe

In 2010, the Tribe received a USBR [Native American Affairs Grant](#) through the *American Recovery and Reinvestment Act* to build ponds that would become part of the Conservation Open Space Area. In 2011, the Tribe received a FWS [Tribal Wildlife Grant](#) to monitor invasive species, such as perennial pepperweed and American bullfrog, in the wetlands and establish ponds for existing native species.

The area supports native species, provides a natural area for the Tribe and community and serves as a key site for education and outreach events.

In 2012, the Tribe received an EPA [Wetland Program Development Grant](#) and developed a wetland program plan, prioritized wetland restoration locations, identified optimum restoration techniques and began collecting water quality data in the wetlands. The Tribe received another grant in 2019 to refine the wetland program and integrate the previous 7 years of wetland data into the management framework.



Conservation Open Space Area on the Bishop Paiute Reservation



## Federal Funding Assistance Programs Spotlight

### Tribal Clean Water Act Section 106 Grants (EPA)



- **Description:** Noncompetitive grant funding to assist eligible Tribes in establishing and implementing water pollution control programs, including ambient water quality monitoring and assessment and developing and implementing water quality standards.
- **Eligible activities:** Administering state and Tribal water quality planning programs, water quality standards programs, total maximum daily load programs, water quality monitoring/assessments programs, stormwater permitting programs, compliance and enforcement programs, groundwater protection programs, etc.
- **Applicant notes:** Required reporting includes three programmatic deliverables: a monitoring strategy, water quality data and a water quality assessment.
- **Funding:** ~\$27M in FY24. EPA awards vary for base funding per Tribe with [Treatment in a Similar Manner as a State](#), or TAS, status. No match is required. Funding is generally distributed in the fall.
- **Information:** EPA's [Tribal Grants under Section 106 of the Clean Water Act](#) website.

### Tribal Clean Water Act Section 319 Grants (EPA)



- **Description:** Each year, eligible Tribes can apply for both a noncompetitive base grant and a competitive grant to support implementation of Tribal programs to address nonpoint source pollution affecting Tribal waters.
- **Eligible activities:** Funding for Tribal staff positions, nonpoint source-related training for Tribal staff, developing watershed-based plans, riparian planting, livestock exclusion fencing, lake protection and restoration activities, ordinance development and outreach and education.
- **Applicant notes:** Must be a federally recognized Tribe with TAS status and an EPA-approved nonpoint source assessment report and management plan. Tribe must meet eligibility requirements in the fall.
- **Funding:** FY24: \$13.2M total. Base grants: \$45,000 – \$70,000 annually (depending on Tribal land area). Competitive grants: Up to \$125,000 for on-the-ground nonpoint source project implementation. Match requirements vary (0% – 40% of total project costs; can include in-kind support).
- **Information:** EPA's [Tribal Nonpoint Source Program](#) and [Current 319 Grant Information](#) websites.

### Tribal Partnership Program (USACE)



- **Description:** Cost-share program to carry out water-related planning activities or activities relating to the study, design and construction of water resources development projects. These activities benefit federally recognized Tribes and are located within Indian country or in proximity to Alaska Native Villages.
- **Eligible activities:** Flood and hurricane storm risk assessment, erosion control, environmental restoration, preserving cultural and natural resources and other projects. The authority allows for technical assistance and comprehensive planning activities that do not lead to construction.
- **Applicant notes:** To start the process, a Tribe submits a letter of interest to the relevant USACE district. If approved and federal funding is available, USACE partners with the Tribe to determine a scope of work before entering into a Feasibility Cost-Sharing Agreement.

- **Funding:** ~\$5M annually for studies; separate funding for construction activities. Cost sharing varies depending on project type. Additional cost-share waivers and ability-to-pay reductions are available for Tribal partners. For more details, please reach out to your District Tribal Liaison.
- **Information:** USACE's [Tribal Partnership Program Guidance](#) website. Contact your USACE district office or [Tribal liaison](#).

---

### Water Management, Planning and Pre-Development Program (BIA)



- **Description:** Competitive grants and technical assistance to support the protection and sustainable management of Tribal water resources; ensures that water supplies on reservations and public domain allotments are utilized effectively and sustainably; and promotes sound water resource management practices that enhance the quality of life, environment and economic conditions for Tribal communities.
- **Eligible activities:** Technical assistance, water surveys and training to develop capacity for water resources management, planning, research and studies.
- **Funding:** Competitive process that prioritizes projects that address critical water resource management needs. Funding amounts vary based on the scope and nature of the proposed projects. Letters soliciting funding requests are sent to Tribes yearly. Applications are due in September.
- **Information:** BIA's [Water Management, Planning and Pre-Development Program](#) website.

---

### WaterSMART (USBR)

- **Description:** WaterSMART offers competitive grants for projects that increase water supply reliability and sustainability by modernizing existing infrastructure and avoiding potential water conflicts.
- **Eligible activities:** Multiple funding opportunities support projects on:
  - Water and energy efficiency, such as implementing canal lining/piping and on-farm irrigation
  - Small-scale water efficiency, such as adding irrigation measures and flow measurement
  - Drought resiliency, such as by building new infrastructure
  - Planning and project design, such as by conducting water strategy and drought planning
  - Water resources management and conservation to protect ecological values or watershed health
  - Applied science and aquatic ecosystem restoration
- **Applicant notes:** Generally, applicants must be in the Western United States or U.S. Territories, Alaska and Hawaii; check individual funding opportunities for eligibility requirements.
- **Funding:** A nonfederal cost-share of 0% – 50% or more of the project cost is required, depending on funding opportunity and project type. Awards vary based on annual appropriations.
- **Information:** USBR's [WaterSMART](#) website.

#### Funding Response and Resiliency

The 2021 *Bipartisan Infrastructure Law* supports some short-term funding opportunities through 2025 to help address climate-related water resource issues, such as flooding – see FEMA's [Swift Current Initiative](#).

## Resource Links

### Federal

#### ■ EPA

- The interagency [Federal Infrastructure Task Force to Improve Access to Safe Drinking Water and Basic Sanitation to Tribal Communities](#) develops and coordinates federal activities to deliver water infrastructure, wastewater infrastructure and solid waste management services.
- [Protecting Waters and Wetlands in Indian Country: A Guide for Developing Tribal Wetland Management Programs](#) informs Tribes interested in managing and protecting wetlands and waters.
- The [Tribal Source Water Protection Project Examples](#) webpage features source water protection projects from Tribes and Nations across the country that highlight collaboration, creativity and the leveraging of programs and partnerships.
- The [Water Finance Clearinghouse](#) portal helps communities with decisions about their water-related environmental needs.

#### ■ USACE

- [How to Plan a Water Resources Project with the U.S. Army Corps of Engineers: A Guide for Tribal & Alaska Native Village Governments \(5th Edition\)](#) provides Tribal partners with a better understanding of how best to work with the USACE.

#### ■ USGS

- [EcoSHEDS](#) offers a series of user-friendly online tools for understanding and supporting research, management and decision-making for hydro-ecological resources. Although each feature is regional in scope, tools are available for Alaska, the Northeast, the Pacific Northwest and the Chesapeake Bay and Lower Mississippi River watersheds.

### Other

- The *Journal of Contemporary Water Research & Education* focused on Tribes in [2018](#) and [2020](#).
- The [National Tribal Water Center](#) helps connect Tribes with training and technical assistance for operating and maintaining safe and sustainable water services.
- The National Tribal Water Council's [A Guidebook for Developing Tribal Water Quality Standards](#) helps Tribes develop their own water quality standards.
- The River Network maintains a [Tapping Into Federal Funding](#) webpage supporting water projects.
- The [Tribal Clean Water](#) group helps Tribes find and access funding to develop and maintain clean drinking water infrastructure. Resources include a 2024 [Bipartisan Infrastructure Law and Inflation Reduction Act Funding Handbook](#).



# Protecting Air Quality

## Introduction

Tribes focus on monitoring and improving air quality to protect public health and ecosystem conditions. To help Tribes increase their management, data collection and regulatory control over the air quality in their communities, the EPA offers resources through grant and technical assistance programs under the *Clean Air Act*. Programs support air pollution monitoring and control and regulations.

Clean air affects human and ecosystem health, the local economy and cultural and recreation opportunities. Health implications vary depending on the pollutant type and exposure and range from respiratory irritation to cancer and long-term systemic damage. Polluted air can lead to missed cultural, work and outdoor opportunities for Tribal citizens and youth. Air pollution reduces visibility, which affects recreational and economic opportunities in national parks and wilderness areas. For more details on the importance of good air quality, see [Our Nation's Air 2019](#), [The Clean Air Act and the Economy, Class I - Air](#) and the [Regional Haze Program](#).

Similarly, water quality and other natural resources are affected depending on the types and amount of air pollution. Atmospheric deposition of nitrogen and sulfur leads to acidification, eutrophication and a loss of biodiversity in aquatic and terrestrial ecosystems. Mercury and other heavy metal compounds deposited from the air can enter water and accumulate in plants and animals, some of which are consumed by people (see [Ecosystems and Air Quality](#)).

## Introduction to the Federal *Clean Air Act*

Congress designed the CAA to combat air pollution problems and to tackle emerging pollution threats. Congress established the CAA in 1970 and made major revisions in 1977 and 1990. To protect public health and welfare under the CAA, the EPA established [national ambient air quality standards](#) for six common *criteria pollutants*: particulate matter, ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide and lead. The CAA identifies primary and secondary national ambient air quality standards. *Primary standards* set limits to protect public health, including the health of “sensitive” populations, such as asthmatics, children and older adults. *Secondary standards* set limits to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation and buildings. States must adopt enforceable plans to achieve and maintain air quality that meets the standards.

The [Tribal Authority Rule](#) authorizes eligible Tribes to implement their own air programs. The rule provides that Tribes will be treated in the same manner as states for virtually all CAA programs. For Tribes choosing not to develop and manage air quality programs, the EPA will implement programs on their behalf (see [Direct Implementation in Indian Country](#)).

## Clean Air Act Accomplishments

The passage of the 1990 CAA Amendments improved Americans’ well-being by reducing exposure to air pollutants. The CAA has been amended over the years to increase protections for human health as technology has improved. Since 1990, the CAA has: (1) avoided 5.4 million lost school days due to children’s respiratory illness and other diseases caused or exacerbated by air pollution; (2) prevented 17 million lost workdays, leading to improved worker productivity and a stronger economy; and (3) reduced many other impacts to people and communities (see the [Benefits and Costs of the CAA 1990-2020](#) for a comprehensive list).

About 80% of all fish consumption advisories in the U.S. involve mercury. Most mercury in water comes from air deposition related to coal combustion and waste incineration ([EPA](#)).

H<sub>2</sub>O  
Connection

## Example Federal Planning Framework to Protect Air Quality

### U.S. Environmental Protection Agency

- [Tribal Implementation Plans](#) are air quality plans developed by Tribes to help attain/maintain the [national ambient air quality standards](#) for criteria air pollutants and fulfill other CAA requirements. Unlike states, Tribes can opt not to develop a Tribal Implementation Plan, in which case the EPA will develop a [Federal Implementation Plan](#) to protect air quality, as needed. *Examples:* [Mashantucket Pequot Tribe](#); [Gila River Indian Community](#).

Source: Bishop Paiute Tribe



Partly cloudy skies over the Bishop Paiute Tribe's 25 acres of wetland habitat in eastern California.

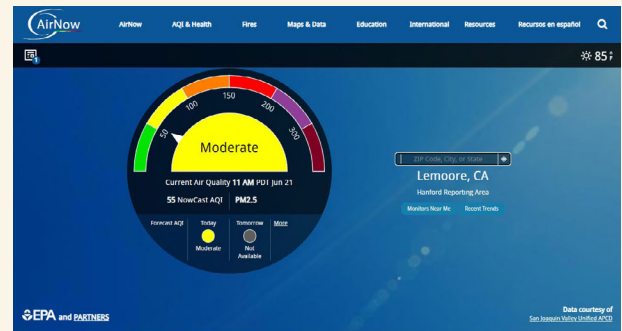


## Technical Assistance Resource Spotlights

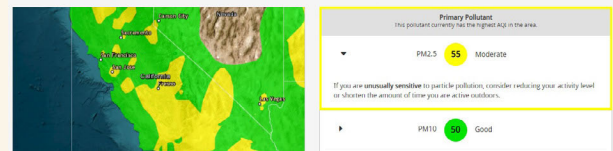
### AirNow

[AirNow](#) is a crowd-sourced, one-stop portal for air quality data, available through the EPA's website or AirNow mobile app. Tribes and federal, state and local agencies submit their data to AirNow, which offers:

- Current and forecast air quality maps and data.
- Current fire conditions, including fire locations, smoke plumes and air quality data from air quality monitors.
- Health and air quality information for the public and health managers.



Current Air Quality



AirNow data for the Lemoore, California, area, which includes air quality data provided by the Tachi Yokut Tribe.

### Tribal Ambient Air Quality Monitoring

The EPA's [Tribal Air Quality Monitoring website](#) provides guidance for Tribes wishing to develop and implement Tribal air monitoring programs on Tribal lands.

### Protecting Air Quality in a Changing Climate

- [Chapter 14](#) of the NCA5 explores climate change's effects on air quality.
- The EPA's [Tribal Air and Climate Resources website](#) provides details about environmental programs and technical assistance available to help Tribes.

### Including Indigenous Knowledge in Air Quality Protection

In 2024, the Nez Perce Tribe received a \$1.3M grant from EPA's [Wildfire Smoke Preparedness in Community Buildings Grant Program](#) to better protect the Tribal members' health. With this funding, the Tribe is deploying portable air filters. The Tribe is also conducting indoor and outdoor air monitoring and upgrading HVAC systems at three community centers, four youth centers and nine public libraries on the Nez Perce Reservation – sites where Tribal members frequently gather to share knowledge and take part in cultural events. For more information, see the [Nez Perce Tribe press release](#).

This EPA webpage is a one-stop-shop for air management resources.

## Tribal Case Study

### Confederated Tribes of the Colville Reservation: A Collaborative Approach to Air Quality Management



The Confederated Tribes of the Colville Reservation Environmental Trust Department began with the support of federal funds 50 years ago and has relied on EPA CAA Section 105 grant funds to build a strong air quality management program. The Tribes' Air Quality Program, which conducts air monitoring for the Colville Reservation, educates the community about protecting air quality and coordinates with EPA to implement federal air quality laws.

The Air Quality Program leads the [Okanogan River Airshed Partnership](#), an example of collaborative air quality management among Tribes and state and federal agencies. Smoke from fires on or near the Colville Reservation in the early 2010s caused community health and environmental concerns. A 2015 fire burned about 263,000 acres, and the air quality index was in the hazardous range for several days, leading to Tribal office closures and outdoor work restrictions. Kris Ray, the Tribes' Air Quality Manager at the time, reached out to federal, state and local agencies and elected leaders to address health concerns caused by wildfire smoke. This collaborative effort became the Okanogan River Airshed Partnership which includes partners across the Okanogan River Valley.

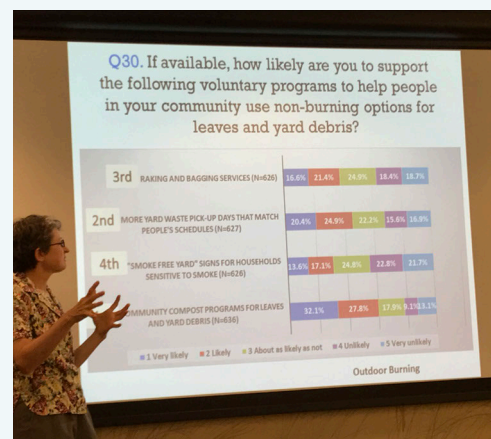
The partners implement management strategies to reduce PM2.5 emissions – particulate matter less than 2.5 micrometers wide – that form in smoke from wildfires, woodstoves and the burning of backyard debris and orchard piles. The Air Quality Program received funds from the Washington Department of Ecology's [Wood Smoke Reduction Grant Program](#) to support a woodstove buyback program, which pays \$250 for each old woodstove turned in for recycling. "Community members appreciate our work as we continue to improve their health by decreasing PM2.5," explains Kathy Moses with the Environmental Trust Department. The Partnership educates and encourages the community through [newspaper ads](#), [radio spots](#), [yard signs](#), [newsletters](#) and other means.

The Partnership established a network of air quality monitoring stations and sensors across the airshed, providing real-time data to inform decision-making. The Tribes and Ecology cooperatively operate a permanent continuous PM2.5 monitor. The Tribes recently received another CAA Section 105 grant to support an air quality technician and an expansion of their program.

Encouraging an active partnership is essential. The Air Quality Program hosts meetings to listen, learn and collaborate with partners, and new people step up with new energy and ideas when others retire or move to new positions. "We work closely with our partners to support their projects," adds Moses. "We share each other's success."



A yard sign available from the Partnership.



A Partnership member explaining the results of a community open burning survey.

Source: Confederated Tribes of the Colville Reservation





## Federal Funding Assistance Programs Spotlight

### **Diesel Emission Reduction Act: Tribal and Territory Grants Areas (EPA)**



- **Description:** Competitive grants and rebates program that protects human health and improves air quality by reducing harmful emissions from diesel engines.
- **Eligible activities:** Diesel emissions reduction solutions, including retrofits, idle reduction, aerodynamic and low-rolling resistance tires, certified engine replacements and conversions, and certified vehicle or equipment replacement.
- **Funding:** Approximately \$7M for Tribes awarded across 10 – 15 projects; no more than \$800,000 requested per project; limit of two applications per participant. No match is required. Applications are due in October; awards are announced in February.
- **Information:** EPA [Tribal and Territory Grants: Diesel Emissions Reduction Act](#) website.

### **Clean Air Act Section 103 Grants for Tribes (EPA)**



- **Description:** Supports short-term projects aimed at conducting and promoting research investigations, experiments, demonstrations, surveys and studies relating to the causes, extent, prevention and control, and health and welfare effects of air pollution.
- **Eligible activities:** Air quality characterization studies, identification of air pollution sources, air quality monitoring baseline studies, training and community education and outreach projects.
- **Applicant notes:** [TAS](#) is not required.
- **Funding:** No match required.
- **Information:** EPA [Tribal Air and Climate Resources](#) and [Tribal Air Grants Framework](#) websites.

### **Clean Air Act Section 105 Grants for Tribes (EPA)**



- **Description:** Grants for implementing programs for preventing and controlling air pollution or implementing national primary and secondary ambient air quality standards.
- **Eligible activities:** Implementation activities, including planning, developing, establishing or maintaining programs.
- **Applicant notes:** Tribes can obtain a Section 105 grant without [TAS](#) status, but TAS offers advantages such as reduced match requirements. Section 105 grants are eligible to be combined into a Performance Partnership Grant.
- **Funding:** Match up to 40% required if Tribes are not in a Performance Partnership Grant (0% match) or have TAS status (5% – 10% match); match may be waived for financial hardship.
- **Information:** EPA [Tribal Air and Climate Resources](#) and [Tribal Air Grants Framework](#) websites.

## Resource Links

### Federal

#### ■ EPA

- The [Air Finance Clearinghouse](#) portal is designed to help communities with decisions about their environmental needs.
- The [Air Sensor Loan Programs](#) bring air sensor technology to the public for supplemental monitoring and educational purposes (see [Tribal examples](#)).
- The [Clean Air Status and Trends Network](#) (CASTNET) is a national monitoring network established to assess trends in pollutant concentrations, atmospheric deposition and ecological effects due to changes in air pollutant emissions.
- The [State and Tribal Indoor Radon Grants Program](#) offers resources to support the national goal of minimizing and preventing radon-related lung cancer.
- The [Tribal Air Coordinators](#) can connect Tribes with necessary information.

#### ■ FWS

- The [Air Quality Program](#) monitors air quality to minimize human-caused air pollution's harm to wildlife and sensitive wildlife habitat on national wildlife refuges.

### Other

- The Institute of Tribal Environmental Professionals' [American Indian Air Quality Training Program](#) provides support to (1) help build Tribal capacity for air quality management, (2) provide high-quality, up-to-date training and (3) enhance skills to promote collaboration and networking.
- The [National Tribal Air Association's](#) annual [Status of Tribal Air Report](#) provides a national overview of Tribal air quality programs, including needs, priorities, recommendations and successes and challenges.



CASTNET is a multipollutant air quality network that includes rural monitoring sites.



The *Status of Tribal Air Report* is an annual publication showing the importance and impact of Tribal air programs.



# Protecting Wildlife and Habitat

## Introduction

Tribal lands and waters provide habitat for fish and wildlife, including more than 525 federally listed threatened and endangered plants and animals, many of which have important ecological and cultural significance, according to a Native American Fish and Wildlife Society [publication](#).<sup>6</sup> Federal programs and tools are available to help Tribes plan and implement strategies to protect wildlife and habitat. Programs support ensuring the rights of species and nature and protecting, restoring and creating habitat by acquiring conservation easements, establishing native plants, encouraging biodiversity, enabling fish passage and other activities.

While currently covering less than 6% of the conterminous United States, **wetlands provide critical habitat for plant and animal species**. Approximately half of North American bird species and half of all federally threatened and endangered species are wetland-dependent ([EPA](#)).

H<sub>2</sub>O  
Connection

## Example Federal Planning Frameworks for Protecting Wildlife and Habitat

### National Oceanic and Atmospheric Administration

- [Hatchery and Genetics Management Plans](#) are developed by state fish and wildlife agencies in compliance with the *Endangered Species Act* 4(d) rule to assess the impacts of a hatchery on federally listed anadromous fish. These plans address hatchery operations in detail, covering facilities, fish propagation and release methods and performance measures. *Examples:* [Hoopa Valley Tribe](#); [West Coast Hatchery Plans](#)

### Natural Resources Conservation Service

- [NRCS conservation plans](#) can help farmers, ranchers and other landowners develop conservation objectives and management strategies for their property, including creating and improving wildlife habitat. Landowners must have a conservation plan to be eligible for NRCS conservation program funding, which can support installing practices like tree/shrub establishment, herbaceous weed control and forest stand improvement. *Examples:* [Pacific Northwest Tribal Agroforestry](#); [Navajo Nation](#) (also see Stewarding Lands section for more information)

### U.S. Fish and Wildlife Service

- [Habitat Conservation Plans](#) are required under Section 10 of the *Endangered Species Act* as part of an application for a permit by any nonfederal entity whose otherwise-lawful activities will result in the “incidental take” of a listed wildlife species. These plans describe the anticipated effects of the proposed taking, and they outline actions to minimize or mitigate the effects and with what funding. *Example:* [Agua Caliente Band of Cahuilla Indians](#)
- [State Wildlife Action Plans](#), although not Tribal-specific, these plans may serve as blueprints for conserving fish and wildlife and preventing loss of endangered species. Each state submitted a plan, beginning in 2005 and updated every 10 years, for approval to the FWS as a condition for receiving funding through the *State and Tribal Wildlife Grants* program. In 2023, FWS issued [voluntary guidance](#) for improving Tribal engagement in these plans. *Example:* [Idaho State Wildlife Action Plan](#)



Source: USGS

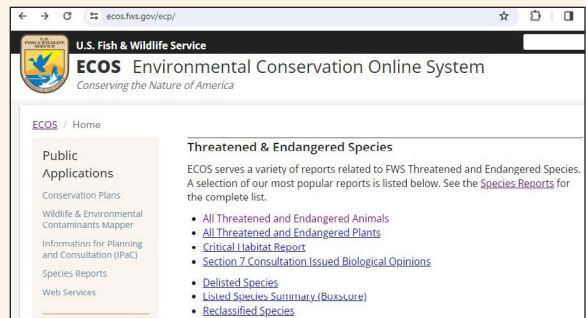
A USGS hydrologist and a Tribal environmental technician seine for fish and insects during a Tribal training class near Pauls Valley, Oklahoma.



## Technical Assistance Resource Spotlights

### Environmental Conservation Online System

The FWS's [Environmental Conservation Online System](#) is a gateway website that provides access to threatened and endangered species-related data from FWS and other government data sources. Through ECOS, the public may access regional conservation plans, the Wildlife & Environmental Contaminants Mapper, information for planning and consultation, species reports and web-based data services. The FWS [National Listing Workplan](#) prioritizes ongoing endangered species listing and habitat decisions based on the needs of candidate and petitioned species, while providing greater clarity and predictability about the timing of listing determinations.

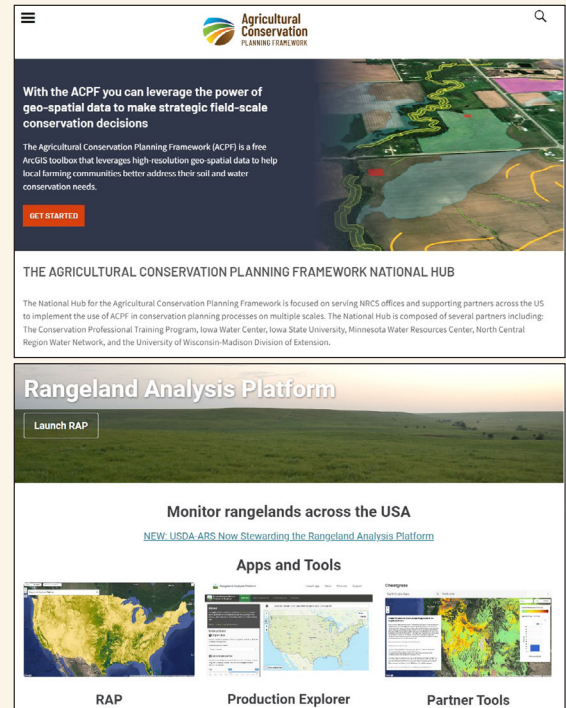


The ECOS website provides links to many resources.

### Conservation Assessment and Planning

Through the Conservation Effects Assessment Project, USDA delivers [tools](#) that support conservation assessment and planning across diverse landscapes and encompassing varied management goals. USDA and its partners have developed four web-based tools:

- [Agricultural Conservation Planning Framework](#) is a web-based resource that supports targeted, strategic conservation planning at the small watershed scale (roughly 35 square miles).
- [Predictor of Avian Communities Tool](#) allows users to assess the potential effects of forest composition and management decisions on select bird communities in the temperate forests of the eastern United States and Canada.
- [Rangeland Analysis Platform](#) provides users direct access to geospatial vegetation data for U.S. rangeland.
- [Vegetation GIS Data System](#) provides a suite of software applications that allow users to record, manage, analyze and report on natural resources data across multiple land types, including rangeland, cropland and forests.



Examples of two landing pages for the Conservation Effects Assessment Project's online resources: the Agricultural Conservation Planning Framework (top) and the Rangeland Analysis Platform (bottom).

### Protecting Wildlife and Habitat in a Changing Climate

- [Chapter 8](#) of the NCA5 focuses on climate change's effects on ecosystems, ecosystem services and biodiversity.
- The FWS's [Conservation & Adaptation Toolbox](#) supports knowledge sharing, co-develops tools and promotes collaborative action to improve management outcomes for priority issues. The toolbox includes a [case study dashboard](#) and decision-support systems related to invasive species control, including the [Non-Native Aquatic Species Toolkit](#) and the [Non-Native Aquatic Species Regulatory Support Tool](#).

## Including Indigenous Knowledge in Protecting Wildlife and Habitat

### Winnemem Wintu Tribe: Restoring Salmon

For thousands of years, the [Winnemem Wintu Tribe's](#) culture and lifeway has been dependent and intertwined with their relatives the Nur, also known as winter-run Chinook salmon. Over the past 200 years, the Winnemem Wintu and Nur also share a history of displacement and population crashes, resulting from the arrival of settlers, commercial fisheries and actions by the state and federal government, including the construction of dams throughout California's Central Valley. In the face of adversity, the Winnemem Wintu Tribe has continued to advocate for its people and the Nur.

As the original stewards of the species, the Winnemem Wintu are partnering with government agencies and others to reintroduce winter-run Chinook salmon to their spawning grounds in the mountain headwaters. In 2022, the Winnemem Wintu Tribe, the California Department of Fish and Wildlife, NOAA Fisheries and the FWS [celebrated the return](#) of endangered winter-run Chinook salmon eggs to the McCloud River upstream of Shasta Reservoir for the first time since the Shasta Dam was built in the 1940s.

The Tribe's Indigenous Knowledge plays a central role in salmon reintroduction efforts. Historically, to support their fish-centric diet and culture, the Winnemem Wintu people constructed holding pools up and down the river as refuges for young salmon from predators and rapids. The Tribe used this knowledge when working with University of California-Davis fish biologists to [design a better streamside hatching tray](#) that mimicked the McCloud River's flows, rocks and plant life. The resulting technology allows fry more time to practice swimming against the currents and lets them choose when to leave the nest.

In 2023, the Tribe signed a co-management agreement with the state and a co-stewardship agreement with NOAA Fisheries, both of which call for the Tribe to contribute Traditional Ecological Knowledge as part of its role as a co-equal decision-maker in efforts to restore Chinook salmon to their historic habitat. This agreement includes studies for a volitional passageway that will allow for the salmon to bypass Shasta Dam without trap and transport, as well as planning for the potential return of the Winnemem Wintu's ancestral Nur from New Zealand. For more information, see NOAA's [The Original Salmon Stewards website](#).



Source: NOAA Fisheries

The McCloud River begins on the flanks of Mount Shasta and was one of the last strongholds of California Chinook salmon as mining and other development devastated salmon runs in other Northern California rivers.

“The success of our salmon reintroduction program is the result of many years of tireless advocacy, consultation and constructive cooperation with a myriad of agencies, non-governmental organizations, consultants and funding sources to address a multitude of interrelated water and environmental issues, all of which is accomplished by a small, underfunded non-federally recognized California State Historic Native American Tribe with limited capacity.”

– Mark Miyoshi, Winnemem Wintu Tribal Historic Preservation Officer

## Tribal Case Study

### Houlton Band of Maliseet Indians: Partnering to Replace a Culvert Restores Habitat



The [Houlton Band of Maliseet Indians](#), or HBMI, has long been connected to the Meduxnekeag River, which has provided sustenance for generations. HBMI used a FWS [Tribal Wildlife Grant](#) to complete a fish habitat assessment and restoration priority plan in 2010, which identified a cracked, undersized culvert along Moose Brook as a high-priority project for reconnecting fish habitat.

HBMI requested USACE support to help identify potential restoration measures for diadromous fish populations. As required before a watershed assessment study could be initiated, USACE conducted and funded a reconnaissance study under the [Tribal Partnership Program](#), which confirmed federal interest in partnering with HBMI. USACE and HBMI then established a cost-sharing agreement for the watershed assessment in 2014. The plan focused on collaboration between partners, rights holders and stakeholders to develop recommendations.

In 2021, HBMI and several partners began addressing the failing culvert on Moose Brook. Erosion had left the culvert perched above the water line, preventing fish from moving upstream. The cracked culvert also damaged the roadway above – the primary route to a manufacturing facility serving as a key local employer. The intersection of wildlife habitat concerns and roadway functionality facilitated a strong partnership between HBMI, the Town of Houlton and other interested parties.

Instead of replacing the culvert, the team realigned the stream and installed a bridge to restore the natural channel. The HBMI, with help from The Nature Conservancy, received FWS Tribal Wildlife Grant and NRCS [Resource Conservation Partnership Program](#) funds. The Town of Houlton, which owned the culvert, received a Municipal Stream Crossing Upgrade Grant from the Maine Department of Environmental Protection and a [Pre-Disaster Mitigation Grant](#) from FEMA to support the project. Ultimately, this project reconnected nearly 10 miles of aquatic habitat.



HBMI and its partners replaced the perched culvert (inset photo) on Moose Brook with a bridge that allows unrestricted fish passage.

The project is an excellent example of collaborative partnering, and it helped the Tribe gain new conservation project expertise. HBMI has worked with state and federal agencies, nongovernmental organizations and other Tribes for over 30 years, building relationships and an ability to leverage grants and other funding sources. EPA [CWA Section 319](#) funding supports HBMI natural resource staff, who maintain the partnerships by attending meetings and actively supporting partners' projects and activities. HBMI also works with the conservation district/NRCS, EPA and FWS on local watersheds, explained HBMI's Sharri Venno. "Collaborative watershed planning has been an important partnering strategy for us."



## Federal Funding Assistance Programs Spotlight

### Tribal Wildlife Grants (FWS)



- **Description:** Competitive grant funding for technical and financial assistance to federally recognized Tribes for developing and implementing programs benefiting fish and wildlife resources and their habitat, including species of Native American cultural or traditional importance and species that are not hunted or fished.
- **Eligible activities:** Planning for wildlife and habitat conservation, fish and wildlife conservation and management actions, fish- and wildlife-related laboratory and field research, natural history studies, habitat mapping, field surveys and population monitoring, habitat preservation, project-related public education and other activities.
- **Funding:** Maximum award is \$200,000; minimum award is \$10,000. No match is required. In 2023, 71 proposals were received and 36 awards were issued.<sup>7</sup>
- **Information:** See the FWS's [Tribal Wildlife Grants](#) website or contact the [National Native American Programs Coordinator](#) to speak with a Tribal Wildlife Grant specialist.

### Fish Passage Technical and Planning Assistance (FWS)

- **Description:** Annual competitive financial and technical assistance for collaborative projects that restores aquatic connectivity. The program helps communities remove obsolete and dangerous barriers, permanently eliminating public safety hazards and restoring and reconnecting river ecosystems. The resulting projects benefit communities by reconnecting aquatic habitat, increasing flood resilience and saving money in long-term repair and replacement costs.
- **Eligible activities:** Projects that improve the ability of native fish or other aquatic species to migrate by reconnecting habitat that has been fragmented by a barrier such as a dam or culvert.
- **Applicant notes:** Must work in cooperation with the local Fish and Wildlife Conservation Office ([contact](#) for guidance).
- **Funding:** Program contributes about \$70,000 per project (no upper limit). Preferred match includes 50% match from federal or nonfederal sources, with an overall program match of 1:1 that is flexible and can include in-kind contributions.
- **Information:** See FWS's [Fish Passage Technical and Planning Assistance](#) website.

### Species Recovery Grants to Tribes (NOAA)



- **Description:** Competitive grant funding for Tribally led activities that have direct conservation benefits for *Endangered Species Act*-listed species. Recently delisted, proposed and candidate species are also eligible.
- **Eligible activities:** May involve management, research, monitoring and outreach activities or any combination thereof.
- **Funding:** No cost sharing or match is required under this solicitation. If sufficient funds are available, new awards are expected to range from \$10,000 to \$100,000 per year; however, there is no set minimum or maximum for any award.
- **Information:** NOAA's [Funded Species Recovery Grants to Tribes](#) website.

### Endangered Species Program (BIA)



- **Description:** Annual competitive grant program supporting projects that encompass either endangered species as identified in the *Endangered Species Act* or Tribally significant species as identified in a Tribal document, management plan or Tribal Resolution.
- **Eligible activities:** Projects that directly relate to restoration, management and/or economic development of Tribal trust resources. Priority consideration is given to projects achieving *Endangered Species Act* compliance and approval to use Tribal trust resources for subsistence, economic or other purposes beneficial to the applicant.
- **Funding:** Each application may request up to \$120,000 in project funding. An eligible entity may submit multiple applications.
- **Information:** See BIA's [Endangered Species Program](#) website.

### Invasive Species Program (BIA)



- **Description:** Annual competitive grants for projects alleviating or preventing the negative impacts of invasive plant and animal species on Tribes and their natural resources.
- **Eligible activities:** Efforts aimed to control, manage or prevent invasive species.
- **Funding:** An eligible entity may submit multiple applications for up to \$200,000 each. Participants are encouraged to use the Section 638 contract to facilitate reporting and funding support. Applications are due to the BIA regional office by January 15.
- **Information:** BIA's [Invasive Species Program](#) website.

### WaterSMART Aquatic Ecosystem Restoration Program (USBR)

- **Description:** Annual competitive grants support projects that restore or protect aquatic ecosystems.
- **Eligible activities:** Projects to study, design and construct aquatic ecosystem restoration projects that are collaboratively developed. Projects that have widespread regional benefits and result in the improvement of the health of fisheries, wildlife and aquatic habitat through restoration and improved fish passage.
- **Funding:** Funds for study/design projects (\$500,000 – \$2M) and construction projects (\$3M – \$20M) may be requested. All applicants must cost-share 35% or more of the total project cost.
- **Information:** USBR's WaterSMART [Aquatic Ecosystem Restoration Program](#) website.

#### Funding

The 2021 *Bipartisan Infrastructure Law* and 2022 *Inflation Reduction Act* support some short-term funding opportunities through 2025 for fishery and wildlife protection; for example, Tribes can conduct habitat protection projects using a NOAA's [Coastal Habitat Restoration and Resilience Grant for Tribes and Underserved Communities](#) while removing fish passage barriers using a NOAA's [Restoring Tribal Priority Fish Passage through Barrier Removal Grant](#) or a Department of Transportation's [National Culvert Removal, Replacement and Restoration Grant](#).



## Resource Links

### Federal

#### ■ FWS

- [State and Tribal Wildlife Grant Programs: 20 Years of Conservation Success](#) report includes featured highlights of selected federally recognized Tribes' use of the Tribal Wildlife Grant Program to conserve species of traditional and cultural significance, including fish, wildlife and plants.
- [Endangered Species Act](#)-listed animals and plants under the jurisdiction of FWS can be found in this searchable website.

#### ■ NOAA

- The [Species Directory](#) is a searchable database of marine species, including those listed as threatened or endangered.

### Other

- The [National Fish and Wildlife Foundation](#) is the nation's largest private conservation foundation. The foundation works with federal, corporate and foundation partners to award grants – all of which are available to Tribes – to protect fish and wildlife (see [current grant programs](#)).
- The National Wildlife Federation's [Tribal Partnerships](#) website outlines Tribal opportunities to partner with the National Wildlife Federation to solve conservation challenges.
- The Native American Fish and Wildlife Society's [Tribal Fish and Wildlife Management](#) website is a network for the exchange of information and management techniques related to self-determined Tribal fish and wildlife management. The organization also maintains a [Grant Finders](#) website with updated information about federal and nonfederal funding opportunities.

Source: USGS



Members of the Mohawk Tribe release thousands of young Atlantic salmon into the St. Regis River system, a tributary of the St. Lawrence River. This 2011 salmon release was part of a coordinated effort among the USGS Great Lakes Science Center and state, Tribal and Canadian fishery resource managers to restore Atlantic salmon in the Lake Ontario/St. Lawrence River drainage system.



# Preparing for Climate Change and Natural Hazards

## Introduction

Climate change and natural hazards can affect critical aspects of Tribes' well-being, including their livelihoods, health, nutrition and cultural practices, as well as the ecological resilience of their territories. Tribal communities in Alaska are already being affected by the loss of sea and lake ice, among other impacts, which influence hunting and fishing activities. In the Pacific Northwest, salmon populations have declined over the last century due to development and deforestation pressures, and climate change is further increasing stream temperatures and reducing snowpack, which stresses salmon populations and interferes with spawning.<sup>8</sup> Federal programs and tools are available to help Tribes increase community and ecosystem resiliency to climate change and natural hazards by providing support for activities, such as:

- Developing emergency management plans
- Planting trees and creating wetlands to establish flood-reducing buffers around waterways
- Encouraging native practices for protecting lands from wildfires, such as through controlled burns

**Key terms:** The focus of climate and natural hazard-related work varies depending on a Tribe's ultimate goal. The following definitions will help Tribal environmental staff understand the differences and determine which federal funding programs best suit their needs.

- **Climate Mitigation:** Measures to reduce the amount and rate of future climate change by reducing emissions of heat-trapping gases – primarily carbon dioxide – or removing greenhouse gases from the atmosphere.<sup>9</sup>
- **Climate Adaptation:** The process of adjusting to an actual or expected environmental change and its effects in a way that seeks to moderate harm or exploit beneficial opportunities.<sup>10</sup>
- **Climate Resilience:** The ability to prepare for threats and hazards, adapt to changing conditions and withstand and recover rapidly from adverse conditions and disruptions.<sup>11</sup>
- **Natural Hazards:** Physical events that can cause difficulty or harm for individuals or communities. Common hazards include earthquakes, tornadoes, hurricanes, floods, drought, wildfires and winter storms.<sup>12</sup>



Source: USFS

A firefighter inspects a wildfire burning in the Clearwater National Forest, east of the Nez Perce Tribe's land.

Water-related climate change impacts are being observed now and will continue. The **increased number and intensity of heavy rainfall events have increased the potential for flash, urban and coastal flooding** (NCA5).

H<sub>2</sub>O  
Connection

## Example Federal Planning Frameworks Addressing Climate Change and Natural Hazards

---

### Bureau of Indian Affairs

- [Planning assistance](#), offered by BIA's Branch of Tribal Climate Resilience, includes technical and financial support to Tribes and Tribal organizations to develop Tribal adaptation plans, vulnerability assessments and risk assessments. **Examples:** [Nooksack Indian Tribe](#); [Núchíú Ute Mountain Ute Tribe](#)
- 

### Federal Emergency Management Agency

- [Hazard mitigation plans](#) identify risks and vulnerabilities associated with natural disasters and are used to develop long-term strategies for protecting communities from future hazard events. A FEMA-approved plan is required for receiving certain types of nonemergency disaster assistance. Tribal plans are approved for 5-year periods and must be updated to maintain grant eligibility. **Examples:** [Ninilchik Village Tribe](#); [Confederated Tribes of Siletz Indians](#)
- 

### National Oceanic and Atmospheric Administration

- NOAA's [StormReady® Program](#) helps communities, counties, Indian nations, universities and colleges, military bases, government sites, commercial enterprises and other groups be better prepared to save lives from the onslaught of severe weather through advanced planning, education and awareness.
- 

### U.S. Army Corps of Engineers

- [Planning Assistance to States](#) can also provide technical assistance for the management of water resources. Assistance may include developing, collecting and conducting hydrologic, economic or environmental data and risk analyses to support an entity's hazard mitigation plan, long-term recovery plan or climate action plan. **Examples:** [Native Village of Kotzebue](#); [Illinois River Basin](#)
- 

### U.S. Economic Development Administration

- A [comprehensive economic development strategy](#) is a strategy-driven plan for regional economic development that is designed to build capacity and guide the economic prosperity and resiliency of an area or region. **Examples:** [The Hopi Tribe](#); [The Blackfeet Tribe](#)
- 

### U.S. Environmental Protection Agency

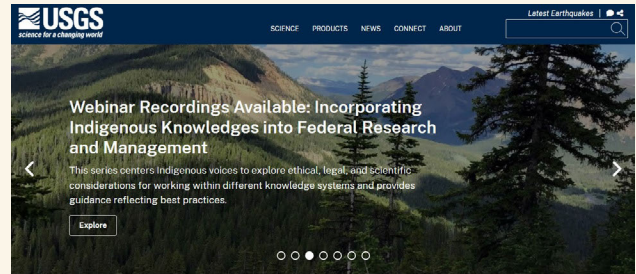
- [Risk-based adaptation plans](#) identify the risks and vulnerabilities associated with climate change and provide strategies to reduce their impacts. Having a watershed-scale, risk-based plan aids in decision-making and building local capacity to address climate change impacts on a community. It is an ideal tool for organizations that manage places, watersheds or coastal environments.
  - [Comprehensive Climate Action Plans](#) summarize the Tribe's significant greenhouse gas sources/sinks and sectors. They also establish near-term and long-term goals and provide strategies for meeting those goals. **Example:** [Upper Columbia United Tribes](#)
  - [Priority Climate Action Plans](#) identify current and future greenhouse gas emissions and list near-term, high-priority and implementation-ready measures to reduce greenhouse gas pollution. These plans also provide a foundation for developing Comprehensive Climate Action Plans. **Example:** [Priority Climate Action Plans](#)
-



## Technical Assistance Resource Spotlights

### National and Regional Climate Adaptation Science Centers

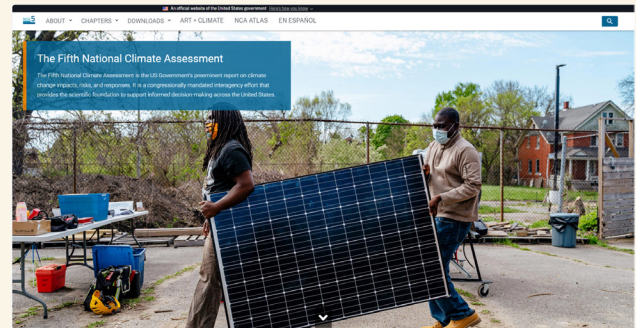
This [USGS website](#) describes the partnership-driven program that teams scientists with natural and cultural resource managers and local communities to help fish, wildlife, water, land and people adapt to a changing climate. The website offers data, publications, tools, a [Tribal-specific resource area](#) and a project inventory of example [Tribal projects](#). The North Central Climate Adaptation Science Center maintains a [Traditional Ecological Knowledge webpage](#) featuring a story map and report highlighting how Indigenous Knowledge can inform climate change adaptation.



USGS Climate Adaption Science Centers website

### The Fifth National Climate Assessment

The [NCA5](#) is the U.S. government's preeminent interagency report on climate change impacts, risks and responses. The report's findings are based on diverse information sources, such as peer-reviewed literature, Indigenous Knowledge, other expert and local knowledge and NOAA climate data. Individual NCA5 chapters focus on climate change effects on specific topic areas discussed elsewhere in this guide, such as water, air, lands and Indigenous Peoples.



NCA5's interactive website

### U.S. Climate Resilience Toolkit

NOAA and other federal partners maintain a [toolkit](#) to build communities' climate resilience by connecting people with tools, information and subject matter expertise from across the federal government.



U.S. Climate Resilience Toolkit website

### Committee on Climate Change, Tribal Homelands and Treaties

This White House [Council on Native American Affairs committee website](#) describes initiatives to address the impact of climate change on Tribal communities and support Tribal sovereignty and self-determination through restoring Tribal homelands. The initiatives also reinforce the integration of treaty rights in federal decision-making.

## Including Indigenous Knowledge in Addressing Climate Change and Natural Hazards

### The Yurok Tribe – Planning for Change

The Yurok Tribe has inhabited the Klamath River region for millennia. In 2002, a devastating salmon die-off due to pathogens, warmer water and low flows spurred the Tribe to act on a new threat: climate change. Interviews with Tribal Elders helped document Indigenous Knowledge on observed climate change within their reservation and ancestral territory, which was reported in [Utilizing Yurok Traditional Ecological Knowledge to Inform Climate Change Priorities](#). The elders advised the Tribe to focus on aquatic habitats, drinking water and fish species. In response, the Tribe developed the [Yurok Tribe Climate Change Adaptation Plan for Water and Aquatic Resources](#). This planning process, which combined Indigenous Knowledge and Western science, assessed the vulnerabilities and resiliencies of Yurok water quality and quantity, aquatic species, and people, and identified strategies that will allow Yurok lifeways, culture and health to flourish despite a changing climate.

Source: Greg Gray, FWS



The Yurok Tribe worked with the FWS Partners for Fish and Wildlife Program, the NOAA Restoration Center and USBR to rehabilitate degraded instream and riparian habitats in tributaries to the lower Klamath River. The loss of habitat complexity and channel structure from the loss of stored wood and streamside forests is a primary limitation to the survival of native fish of the Klamath River, including the federally listed coho salmon.

## Tribal Case Study

### Fort Peck Assiniboine and Sioux Tribes: Partnering for Climate Change Preparation



The [Fort Peck Assiniboine and Sioux Tribes](#) in Montana faced a challenge: they needed to update their existing hazard mitigation plan to maintain eligibility for federal disaster response grants like those through FEMA's [Hazard Mitigation Grant Program](#). The Tribe wanted to expand the plan to include hazards that have become more frequent because of climate change, including flooding, wildfires, severe storms and extreme cold and drought. Fortunately, they found a federal partnering resource designed to meet their needs.

Because the Tribes' hazard mitigation plan was due for an update, FEMA Region 8 suggested they join a 2020 – 2021 EPA and FEMA pilot partnership project, which was developed under an existing [EPA-FEMA memorandum of agreement](#) to collaborate on helping communities become safer, healthier and more resilient. FEMA provided Hazard Mitigation Grant Program funding and expertise in identifying hazards and assessing risk. The EPA provided technical assistance focused on environmental protection.

The Fort Peck Tribal community members met with the project team to provide a local perspective on disasters and identify the hazards that had the most significant impact on the community and its cultural, natural and economic resources. The collaborative approach helped the Tribes develop mitigation projects and initiatives that had broad public support. By combining community input with the federal partners' expertise, the Tribes developed locally appropriate strategies that are creating new recreational green space, revitalizing community centers and supporting long-term climate change adaptation with nature-based green infrastructure solutions and new resilience hubs (e.g., cooling/warming centers, cleaner air centers). This approach ensured the new hazard mitigation plan addresses the specific vulnerabilities of the reservation while considering the Tribes' cultural values and priorities.

The Fort Peck Tribes also received EPA [Brownfields 128\(a\) State and Tribal Response Program](#) assistance to assess, clean up and evaluate new locations for a vulnerable dump site away from the Missouri River floodplain, protecting the Tribes from potential contamination events during floods. The EPA also supported the Tribes in developing a disaster debris management plan as an annex to the updated hazard mitigation plan.

This pilot program has the potential to be replicated nationwide, fostering collaboration between federal agencies and Tribal communities. By prioritizing community engagement and including Indigenous Knowledge, future hazard mitigation plans can more effectively safeguard Tribal lands and people.



EPA Brownfields funds will help the Tribes clean up the site (top) and create a natural park and preserve (bottom).



## Federal Funding Assistance Programs Spotlight

---

### Tribal Climate Resilience Annual Awards Program (BIA)



- **Description:** Competitive funding to support climate resilience planning and strategy implementation to prepare for climate change impacts on Tribal treaty and trust resources, economies, regenerative agriculture and food sovereignty, conservation practices, infrastructure and human health and safety.
  - **Eligible activities:** Projects that support Tribal climate resilience by including science, Indigenous Knowledge, Indigenous languages and technical information. Planning and implementation projects include climate adaptation planning, community-led relocation, managed retreat, ocean and coastal management, protect-in-place efforts and habitat restoration and adaptation.
  - **Funding:** Average award amount: \$1.2M (900 awards totaling more than \$110M). Planning activities: up to \$250,000; implementation activities: up to \$4M; habitat restoration and adaptation activities: no maximum. No match is required; however, once awarded, the Tribe may use Public Law 93-638 funds as match when applying for other federal funds if the funds are spent within the originally proposed project scope. Applications open in July. Proposals are due in October.
  - **Applicant notes:** Reporting requirements include annual project and/or technical progress updates and final written reports addressing components outlined in the scope of work.
  - **Information:** BIA's [Tribal Climate Resilience Annual Awards Program](#) website.
- 

### Pre-Disaster Mitigation Grant Program (FEMA)

- **Description:** Annual competitive grants to federally recognized Tribes for planning and implementing sustainable cost-effective measures to reduce the risk to individuals and property from future natural hazards, while also reducing reliance on future federal disaster funding. All applicants must have a FEMA-approved hazard mitigation plan by the application deadline.
  - **Eligible activities:** Mitigation projects, such as drainage improvements, seawalls/flood gates, flood storage, wetland enhancements, stream restoration, dam removals, green infrastructure, flood infrastructure improvements and hazard mitigation plan updates. All projects must comply with applicable environmental planning and historic preservation laws.
  - **Funding:** In 2023, \$233M was awarded across 100 applicants. Average award amount: \$2.3M. Cost-share required: 75% federal, 25% nonfederal. Small, impoverished communities may be eligible for up to a 90% federal cost share. Applications open in May and are due in June; awards are made in September.
  - **Information:** FEMA's [Pre-Disaster Mitigation Grant Program](#) website.
- 

### Hazard Mitigation Grant Program (FEMA)

- **Description:** Provides grant funding to Tribes to develop hazard mitigation plans and rebuild in a way that reduces or mitigates future disaster losses. This grant funding is available after a presidentially declared disaster. Applicants must develop and adopt a hazard mitigation plan to receive funding.
- **Eligible activities:** Planning and enforcement, flood protection, retrofitting and construction.
- **Funding:** A presidential major disaster declaration makes funds available if requested by an eligible Tribe. The funding available is based on a [sliding scale formula](#). A nonfederal cost share is required.
- **Information:** FEMA's [Hazard Mitigation Grant Program](#) website.

## Building Resilient Infrastructure and Communities (FEMA)

 Tribal set-aside

- **Description:** Competitive grants to Tribes for addressing future risks from natural disasters, including wildfires, droughts, hurricanes, earthquakes, extreme heat and flooding. Applicants are required to have a FEMA-approved Tribal hazard mitigation plan.
- **Eligible activities:** Capability/capacity-building activities, mitigation projects and management costs. The top project types implemented include flood control, utility/infrastructure protection, plan updates, stabilization, mitigation reconstruction and retrofits, and project scoping, which includes engineering, environmental, feasibility and/or benefit-cost analyses.
- **Funding:** Available: \$1 billion in 2023; \$50M in Tribal set-aside funds. Average award: \$5M. Cost share required: 75% federal, 25% nonfederal. Applications open in October and close in February. Awards are made in May.
- **Information:** FEMA's [Building Resilient Infrastructure and Communities](#) website.

Source: USGS



Unusually dry conditions affect productivity and ecosystem health.

## Resource Links

### Federal

#### ■ BIA

- The [Tribal Climate Resilience Resource Directory](#) is a regularly updated list of federal and nonfederal resources to support Tribes' climate preparedness and resilience.

#### ■ EPA

- The [Adaptation Resource Center \(ARC-X\)](#) is an interactive resource to help local governments effectively deliver services to their communities as the climate changes. Decision-makers can find information about climate change's effects on issues of concern, adaptation strategies, case studies and funding opportunities.



- The [Climate Resilience and Adaptation Toolbox \(CRAFT\)](#) offers technical resources and support.
- The [National Climate Resources for Tribes](#) website offers resources to help Tribes address climate change impacts and develop climate adaptation and climate mitigation strategies.
- The EPA Nonpoint Source Program's [Tribal NPS Resources and Training](#) webpage includes a webinar focused on [Integrating Climate Resilience and Hazard Mitigation in Tribal NPS Work](#).

## ■ NOAA

- [Climate Observations and Monitoring](#) offers links to publicly available datasets and data products.

## Other

- The [Climate Adaptation Knowledge Exchange](#), managed by [EcoAdapt](#), is a knowledge-sharing platform with climate change adaptation case studies, tools and resources.
- The Georgetown Climate Center's [Adaptation Clearinghouse](#) includes content to help policymakers reduce or avoid the effects of climate change on communities.
- The [Institute for Tribal Environmental Professionals](#) offers [Tribal Adaptation Plans, Toolkits and Planning Guides](#) to assist Tribes with the ramifications of climate change.
- The [Pacific Northwest Tribal Climate Change Project](#) offers an online [Tribal Climate Change Guide](#) to assist Tribes with grants, programs and plans that may assist in addressing climate change.
- The nonprofit [Climate & Wildfire Institute](#) connects science to public policy and decision-making to accelerate solutions to a fast-changing climate.
- The [Tribal Resilience Action Database](#) incorporates more than 5,000 searchable climate resilience actions collected from 65 Tribal and Tribal consortia adaptation plans. Project partners and advisors representing more than a dozen Tribes across North America collaborated to create this culturally sensitive, easily accessible database of climate adaptation strategies and examples that can inform climate adaptation and resilience work in Tribal communities.

## Climate Adaptation Framework

The interagency [Tribal Climate Adaptation Guidebook](#) website highlights exemplary Tribal efforts in a climate adaptation framework that recognizes the distinct circumstances of Tribal governments, cultures and knowledge systems. The framework has five major steps:

- [Step 1](#): Center the Tribe's Adaptation Effort
- [Step 2](#): Identify Concerns and Gather Information
- [Step 3](#): Assess Vulnerability
- [Step 4](#): Plan for Action
- [Step 5](#): Implement and Monitor Actions

Each step is broken down into several activities that include tasks, guidance, examples and tips for engaging your community. This resource was partially funded by NOAA and created by the [Oregon Climate Change Research Institute](#), [Adaptation International](#) and other contributors.



The Climate Adaptation Framework outlines five main steps to help Tribes adapt to climate change.



# Stewarding Lands

## Introduction

Approximately 56.2 million acres are held in trust by the U.S. federal government for various Indian Tribes and individuals.<sup>13</sup> As a result of land dispossession and forced migration, a Tribe's present-day land area represents, on average, less than 3% of its historical land area.<sup>14</sup> Predominant land cover types on present-day Tribal land area in the conterminous United States include shrubland (29%), grassland (24%), forest (19%) and cropland (10%).<sup>15</sup> Indigenous stewardship practices play a critical role in conserving natural resources across these landscapes.<sup>16</sup> For example, a 2018 study found that Menominee and Ojibwe Tribal forests in northern Wisconsin contained higher tree volume, higher rates of tree regeneration, more plant diversity and fewer invasive species than nearby non-Tribal forestlands.<sup>17, 18</sup>

Approximately 10% of total streamflow in the conterminous United States flows through Tribal lands (USGS).

H<sub>2</sub>O  
Connection

This section highlights federal programs and tools available to help Tribes care for their lands through activities like land acquisition and protection, landowner education and implementing conservation practices.

Source: USDA



Institute of American Indian Arts' Teresa Kaulaity Quintana (Kiowa) manages a garden that promotes Indigenous methods of food and medical crop cultivation and serves as an outdoor learning space.

## Ensuring Tribal Co-Stewardship and Co-Management of Lands

One of the main principles of co-stewardship is acknowledging that public lands and waters are ancestral homelands of Native Americans, Alaska Natives and Native Hawaiians. Actions that increase engagement and collaborative relationships with Tribes on these lands through co-stewardship agreements and on-the-ground projects are consistent with the federal trust responsibility with Tribal nations.

As stated in DOI's [First Annual Report on Tribal Co-Stewardship](#) (2002), Tribes play a pivotal role in land management:

Since time immemorial, Indigenous peoples have stewarded North American waters and lands while building vibrant cultures and communities. Today, virtually all lands the U.S. government holds as federal public lands were once Indigenous territory. Through treaties, statutes and executive orders, the United States assumed obligations of trust to protect Tribal sovereignty and promote Tribal self-determination. Those obligations include ensuring Tribes have a role in protecting and managing the millions of acres of federal public lands that were once Tribal homelands. To honor these obligations and secure effective stewardship of all Federal lands and waters, the United States should ensure that Tribes sit at the table with Federal land managers for the benefit of all Americans.

## Example Federal Planning Frameworks for Stewarding Lands

### Bureau of Indian Affairs

- [Forest management plans](#) describe the landowners' goals and provide a resource assessment and maps. They also include plans for how the forested trust land is to be used, protected and maintained. These plans describe the forest, the protection and management measures and the forest's social and economic benefits. Forest management plans are required for all Tribal forest lands in federal trust status. **Example:** [Flathead Indian Reservation](#)
- [Integrated resource management plans](#) are created by Tribal governments to describe comprehensive goals, inventory natural resources and develop management plans addressing all Tribal resources – natural, social, cultural and economic. **Examples:** [Confederated Tribes of the Colville Reservation](#); [Red Cliff Band of Lake Superior Chippewa](#)
- [Agricultural resource management plans](#) are 10-year plans specifying the management objectives developed for Tribal agricultural and grazing resources; they include information about resource conditions, environmental factors and landowner agricultural resource goals. **Example:** [Wind River Indian Reservation](#)

### Interagency - U.S. Departments of Agriculture, Interior and Commerce

- Co-Stewardship Agreements: Under [Joint Secretarial Order 3403](#), the bureaus and agencies within these departments are directed to “make agreements with Indian Tribes to collaborate in the co-stewardship of Federal lands and waters under the Departments’ jurisdiction, including wildlife and its habitat.” The means to enter into agreements are varied and can range from formal Tribal consultation to Tribal engagement in federal planning processes. **Examples:** [Leech Lake Band of Ojibwe and the Tulalip Tribes](#) agreements under the *Tribal Forest Protection Act*.

### Natural Resources Conservation Service

- [Conservation plans](#) are developed and implemented by NRCS staff in coordination with Tribes to protect, conserve and/or enhance natural resources, including soil, water, air, plants, animals, energy and human considerations. NRCS technical service providers or other qualified individuals can support conservation planning activities, design and implementation activities and conservation evaluation and monitoring activities for forest management, grazing management, fish and wildlife habitat and other issues. The Conservation Evaluation and Monitoring Activity 222: [Indigenous Stewardship Methods Evaluation](#) specifically looks at including Indigenous Knowledge into the conservation planning process.

## Managing the Oak Borer with Cultural Burning

The La Jolla Band of Luiseño Indians is facing an infestation of the Goldspotted Oak Borer, an invasive beetle that's killing oak trees in California. The beetle threatens both the ecological balance and the Tribe's cultural and economic resources, as the oaks provide acorns that support wildlife and historically served as a key food source for the Tribe. The loss of oak trees disrupts this cultural practice and affects the Tribe's connection to their ancestral land and traditions. The Tribe has been proactively addressing this issue through various management strategies. The Tribe is partnering with the University of California Riverside to use heat treatment practices and Indigenous-based prescribed fire to be used as a landscape-level management tool for the control of the beetle. The

Tribe also created a new Natural Resources Department, led by Joelene Tamm, to manage the Tribe's woodland and other land areas. Tamm's program employs a forestry and fuels crew that conducts surveys to identify and remove hazardous infested trees. Salvaged wood is then processed into firewood. The Tribe is working on producing kiln-dried and heat-treated firewood to ensure the Goldspotted Oak Borer and other forests pests do not continue to spread to new areas. The fuels crew has also been trained in wildland fire to implement prescribed fire and assist cultural burn practitioners. This approach not only preserves the remaining oak woodlands but also provides economic benefits through firewood sales. Their success showcases the power of combining Indigenous Knowledge with modern conservation techniques to protect vital natural resources. For more information, see the “[MAATHAAW: The Fire Within Us](#),” an Indigenous-led research feature-length documentary showing the cultural, emotional and scientific relationships of Southern California Tribes with fire.



Source: USFS

Goldspotted Oak Borer



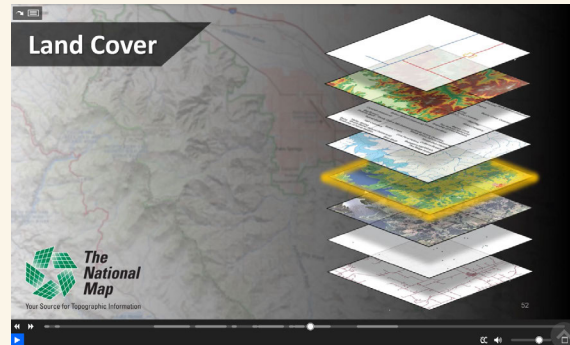
## Technical Assistance Resource Spotlights

### Tribal Connections Mapper

A USFS online [interactive mapping tool](#) that shows how lands managed by the agency connect or overlap with current Tribal trust lands and lands that Tribes exchanged with the federal government before 1900. This reference tool helps USFS employees and the public better understand historical treaties and the role they play in making current land management decisions. USFS developed a presentation, [Tying Forest Service Lands to Tribal Lands and Treaty Ceded Lands](#), which describes how to use the mapping tool.

### The National Map

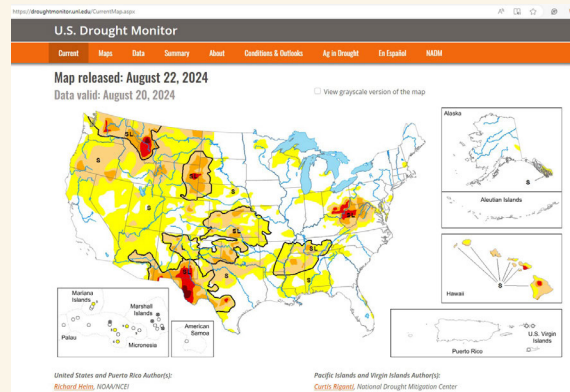
The USGS National Geospatial Program maintains [The National Map](#), a collection of mapping products and services available to the public that can enable better policy and land management decisions and the effective enforcement of regulatory responsibilities. A series of [video lessons](#) shows how to use the applications, interfaces, data and tools. The National Map supports data download, digital and print versions of topographic maps, geospatial data services and online viewing.



National Map tutorial videos are provided.

### U.S. Drought Monitor

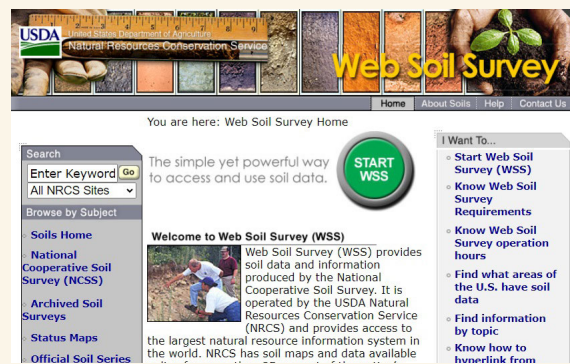
Produced jointly by NOAA, USDA and the National Drought Mitigation Center at the University of Nebraska-Lincoln, the [U.S. Drought Monitor](#) map is released every Thursday. The map uses six classifications for drought conditions ranging from normal conditions to exceptional drought. *Example:* [Wind River Tribes Create New Drought Monitoring Tools](#)



The U.S. Drought Monitor map is updated weekly.

### Web Soil Survey

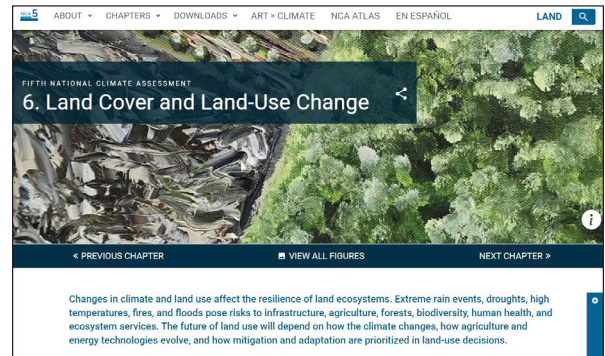
Operated by the USDA NRCS, the [Web Soil Survey](#) provides soil data and information produced by the National Cooperative Soil Survey. Soil surveys can be used for general farm, local and wider-area planning. To assist soil survey users, USDA offers a fact sheet, [Using Web Soil Survey – the Four Steps](#), and provides a link to a playlist of tutorial videos: [Using Web Soil Survey](#). The site is updated and maintained online as the single authoritative source of soil survey information. NRCS has soil maps and data available for almost 100% of the nation's counties. Contact your local [USDA Service Center](#) with questions.



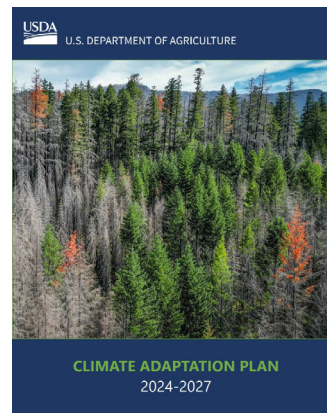
NRCS's Web Soil Survey webpage provides access to the tool and offers guidance and examples.

## Stewarding Lands in a Changing Climate

- [Chapter 6](#) of the NCA5 focuses on climate change's effects on land cover and land use. This chapter focuses on how future land uses will depend on climate changes, the evolution of agriculture and energy technologies and the prioritization of mitigation and adaptation in land use decisions. The chapter describes how the impacts of climate change are transforming landscapes in ways considered harmful. Communities with especially strong ties to place and local ecosystems, including but not limited to Tribal and Indigenous groups, may suffer declining cultural and spiritual connections with the land as a result.
- USDA maintains a [Climate Change Adaptation](#) webpage that explores how adaptation actions can reduce the vulnerability of natural and human systems to climate change. Examples in agriculture and forestry include changes in land management practices to build long-term resilience, strengthening disaster preparedness and recovery, increasing access to technology and increasing education to build adaptive capacity. The 2024 – 2027 *Climate Adaptation Plan* builds off USDA's 2021 [Action Plan for Climate Adaptation and Resilience](#).



Chapter 6 of the NCA5 focuses on lands.



The USDA Climate Adaptation Plan aims to develop an interactive approach to adjusting to a changing climate.



Source: USDA

Youth learn about southeast Native American culture and foods during the 2nd Annual Southeastern Indian Festival hosted by the Poarch Band of Creek Indians.

## Including Indigenous Knowledge in Land Stewardship

### Oneida Nation: Restoring Land Connection

Oneida Nation's [commitment to the environment and stewardship](#) is grounded in the Oneida's creation story, which provides the foundation of the cultural belief that everything is connected, and there must be balance for the environment to thrive. The Oneida Nation has worked to reacquire Indigenous lands to make major improvements to water quality in critically contaminated Wisconsin watersheds. The Nation has worked with partners to transform agricultural fields back into wetlands, prairies and forests. The return of native plants and wildlife provides not only a renewed source of sustenance, but also reconnects the Tribe to the practices and knowledge passed down through generations. The Tribe has also worked with NRCS to focus on improving water quality in local streams as part of their restoration efforts (see [Improving Water Quality with Indigenous Land Restoration](#)).

Source: Mara Koenig, FWS



The Oneida Nation restored this prairie habitat with support from the FWS Partners for Fish and Wildlife Program.

## Tribal Case Study

### La Jolla Band of Luiseño Indians: Managing Fire-Prone Lands



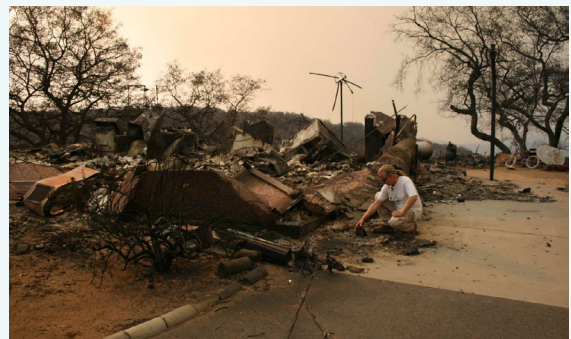
The [La Jolla Band of Luiseño Indians](#) cares for almost 9,000 acres of reservation land in southern California, an area subject to cyclical droughts. In recent years, a changing climate has led to more frequent severe droughts, which has raised the wildfire potential. In 2004, the La Jolla Band became the first Tribe in California to receive FEMA approval for their Pre-Disaster Mitigation Plan, which established eligibility for grants under FEMA's [Hazard Mitigation Assistance](#) programs during natural hazard events like wildfires. The Tribe has updated its [plan](#) every 5 years since then.

In 2007, more than 9,000 separate wildfires burned across California, 30 of which occurred during the fall 2007 California Firestorm. One of these, the Poomacha wildfire, broke out on the Tribe's reservation, merged with a nearby fire and burned 93% of the reservation – destroying a third of the homes. The EPA's emergency response teams helped assess and remove wastes, such as unidentified barrels in burned areas. Rob Roy, the Tribe's Environment Protection Office director, noted that the EPA offered other assistance as well. "EPA allowed us to put our clean water projects on hold so we could concentrate on our fire response."

The Tribe collaborated with the San Diego Foundation and other nearby Tribes to clean up and rebuild. This successful partnership effort ultimately led the Tribes to create the [Tribal Long Term Recovery Foundation](#).

After the 2007 fires, the Tribe received a grant from the Council of Western State Foresters' [Wildland Urban Interface Program](#), funded via the USFS [Cohesive Fire Strategy](#) program, to clear brush and create defensible spaces around homes. The Tribe also used NRCS Environmental Quality Incentives Program funding and BIA Wildland Urban Interface funding to create fuel breaks.

The Tribe has undertaken other efforts to prepare for the future. In 2009, the La Jolla Band became the first Tribe in California to receive Congressional approval for their drought plan, which accelerates access to emergency federal funding for the Tribe if a drought occurs. The Tribe has also been working with BIA and NRCS to develop an [Integrated Resources Management Plan](#), which combines separate efforts, such as forest management, climate adaptation, drought planning and disaster mitigation, into one integrated approach to managing the Tribe's natural resources.



The Poomacha Fire devastated the community.



The Tribe received technical assistance from the U.S. Department of Defense's [Innovative Readiness Training Program](#), which provides training and readiness for military personnel while addressing the needs of underserved communities. The personnel helped fix road and culvert damage from the 2007 fires.



## Federal Funding Assistance Programs Spotlight

---

### Agricultural Conservation Easement Program (USDA NRCS)

- **Description:** Two noncompetitive easement grant programs are available. The Agricultural Land Easements help private and Tribal landowners, land trusts and other entities such as state and local governments protect croplands and grasslands on working farms and ranches by limiting non-agricultural uses of the land through conservation easements. Wetland Reserve Easements help private and Tribal landowners protect, restore and enhance wetlands that were previously degraded due to agricultural uses. Additionally, 30-year contracts are available to enroll acreage owned by Tribes to conduct restoration activities without encumbering the land with an easement.
  - **Eligible activities:** Activities that limit nonagricultural uses that negatively affect agricultural uses and conservation values; protect grazing uses and related conservation values by restoring or conserving eligible grazing land; and protect, restore and enhance wetlands on eligible land.
  - **Applicant notes:** Eligible applicants include private and Tribal landowners, land trusts and state and local governments who want to make improvements to the land they own or lease.
  - **Funding:** Annual threshold is \$3M. Contracts are developed on demand by NRCS agents.
  - **Information:** See USDA's [Agricultural Conservation Easement Program](#) website.
- 

### Conservation Innovation Grants (USDA NRCS)

- **Description:** Competitive grant program that includes national-level, state-level and on-farm trials funding. The program supports the development of new tools, approaches, practices and technologies to further natural resource conservation on private lands. Through creative problem solving and innovation, partners work to address water quality, air quality, soil health and wildlife habitat challenges, all while improving agricultural operations.
  - **Eligible activities:** Innovative, on-the-ground conservation projects, including pilot projects and field demonstrations. Proposed projects must conform to the description of innovative conservation projects or activities published in the annual funding notice.
  - **Applicant notes:** Up to 10% of national funds are set aside for applicants who are historically underserved or community-based organizations that include or represent them.
  - **Funding:** \$20M annually. A 1:1 nonfederal funding match of cash or in-kind contribution is required.
  - **Information:** See USDA's [Conservation Innovation Grants](#) website.
- 

### Conservation Stewardship Program (USDA NRCS)

- **Description:** Competitive program that provides contract payments and technical assistance. NRCS works one-on-one with producers to develop a conservation plan that outlines and enhances existing efforts using new conservation practices or activities based on management objectives for the operation. Producers implement practices and activities in their conservation plan that expands on the benefits of cleaner water and air, healthier soil and better wildlife habitat, all while improving their agricultural operations.
- **Eligible activities:** Available practices and practice standards [vary by state](#).
- **Applicant notes:** Eligible entities include anyone who owns or rents and manages land for agricultural or forest production such as cropland, rangeland, grassland or pasture. Contact the local NRCS field



office to help determine eligibility. NRCS ranks applications, with the highest scoring applications receiving contract offers first.

- **Funding:** Varies annually. Contract payments are based on two components: (1) payments to maintain the existing level of conservation, based on the land uses included in the contract and an NRCS assessment of existing stewardship at the time of enrollment and (2) payments to implement additional conservation activities. Most participants will be eligible for a \$4,000 minimum payment during any year their total annual contract payment falls below the minimum payment amount.
- **Information:** See USDA's [Conservation Stewardship Program Grants](#) website.

---

### Environmental Quality Incentives Program (USDA NRCS)

- **Description:** Competitive technical and financial assistance for farmers, ranchers and nonindustrial private forest landowners to help plan and implement conservation practices and activities on working agricultural and forestry landscapes.
- **Eligible activities:** Assistance can be used on all types of agricultural operations: conventional, organic, specialty and commodity crops; forestry and wildlife; and livestock operations. Conservation practices may include those addressing natural resource concerns and delivering environmental benefits such as improved water and air quality, conserved ground and surface water, increased soil health and reduced soil erosion and sedimentation, improved or created wildlife habitat, and mitigation against drought and increasing weather volatility.
- **Applicant notes:** Eligible entities include farmers, ranchers and forest landowners who own or rent agricultural land.
- **Funding:** Payment rates for conservation practices are reviewed and set each fiscal year. Incentive contracts require producers to address at least one priority resource concern during the contract period of 5 years. Tribal entities are not subject to payment limitations. This exemption only applies to Tribal governments or Indian Tribal Ventures, not to individual Tribal members. Applications for financial assistance are accepted throughout the year. Specific state deadlines are set for ranking and funding.
- **Information:** See USDA's [Environmental Quality Incentives Program](#) website.

#### Alternative Funding Arrangements

Alternative Funding Arrangements, or AFAs, provide NRCS and Tribes with flexibilities regarding funding, planning and administering the implementation of the Environmental Quality Incentives Program and the Conservation Stewardship Program if existing processes impede program participation. Through an AFA, a Tribe can administer funds for projects on land over which Tribes or their members have control. Payment rates may be based on actual costs, average costs, predetermined payment schedules or other methods approved by NRCS. Funding may also be used to cover technical assistance if provided by Tribe and can cover indirect cost. A Tribe may negotiate an AFA at any time.

---

### Regional Conservation Partnership Program (USDA NRCS)

- **Description:** Promotes coordination of NRCS conservation activities with partners that offer value-added contributions to expand collective ability to address on-farm, watershed and regional natural resource concerns.
- **Eligible activities:** Any combination of authorized, on-the-ground conservation activities implemented by farmers, ranchers and forest landowners. May include land management/land improvement practices, land rentals, entity-held easements, U.S.-held easements or public works/watersheds.

- **Applicant notes:**
  - Partner eligibility: The lead partner for a project must be eligible to enter into contracts with NRCS to submit an application; if selected for an award, that partner is responsible for collaborating with NRCS to successfully complete the project.
  - Land eligibility: Projects must be carried out on agricultural or nonindustrial private forest land or associated land on which NRCS determines an eligible activity would help achieve conservation benefits or improve the condition of natural resources.
- **Funding:** \$300M annually.
- **Information:** See USDA's [Regional Conservation Partnership Program](#) website.

### Landscape Scale Restoration Grant Program for Tribes (USDA-USFS)

✔ Tribe-only

- **Description:** Competitive cooperative agreement/grant program promoting collaborative, science-based restoration of priority forest landscapes and furthering priorities identified in a state forest action plan or equivalent restoration strategy.
- **Eligible activities:** Projects may address large-scale issues such as wildfire risk reduction; watershed protection and restoration; and the spread of invasive species, insect infestation and plant disease.
- **Applicant notes:** Funds may only be spent on nonindustrial private forest land or state forest land that is also rural.
- **Funding:** 50% nonfederal match is required.
- **Information:** See the USFS's [Landscape Scale Restoration](#) website.

### Funding Response and Resiliency

The 2021 *Bipartisan Infrastructure Law* provides \$19.5 billion over 5 years to provide added support for USDA conservation programs like the [Agricultural Conservation Easement Program](#).

Source: Preston Keres, USDA



A member of the Blackfoot Nation meets with USDA to discuss agriculture issues. The Blackfoot Reservation covers 1.5 million acres on the Rocky Mountain Front in northeast Montana.

Source: Molly McCormick, USGS



Land managers from the Hopi and Navajo Nations gather to remove invasive Tamarisk and Camelthorn as part of the BIA-funded "Building Tribal Resiliency Through Native Seeds" program.

## Resource Links

### Federal

#### ■ EPA

- The [Brownfields and Land Revitalization Program](#) helps communities work together to assess, safely clean up and sustainably reuse brownfields (e.g., [2023 Brownfields Federal Programs Guide](#)).
- The [Land Finance Clearinghouse](#) helps communities with decisions about their environmental needs.
- The [Pesticide and Chemical Safety in Indian Country](#) webpage addresses pesticide education, technical assistance and compliance with federal pesticide law.

#### ■ USDA

- The [Office of Tribal Relations](#) is a single point of contact for Tribes on USDA services, including consultation.
- The [Partnerships With Tribal Nations](#) website connects Tribal leaders, land managers, agricultural producers and citizens with resources supporting farming, grazing and forestry.

#### ■ USFS

- The [Tribal Forest Protection Act/638 Project Authority](#) offers a webinar and questions and answers about Tribes' 638 Project Authority.
- The National Partnership Office works with the National Forest Foundation to manage the [Partnerships on Every Forest](#) program to help build partnership strategies that increase stewardship capacity and create more inclusive land management approaches; for more details, see the 2023 [Partnerships on Every Forest Resource Guide](#).
- The [Tribal Partnership Comparison Matrix](#) informs partnership strategies between Tribes, USFS and other partners.
- The [Reforestation, Nurseries and Genetic Resources Program](#) provides information and technical resources to help people grow forest and conservation seedlings (e.g., [Nursery Manual for Native Plants](#)).
- Co-stewardship information is available in the 2023 [Annual Report on Tribal Co-stewardship](#) and [Resources for Implementing Joint Secretarial Order 3403, Information for Tribes on New Forest Service Programs and Landownership Authorities](#) documents.

#### ■ USGS

- The [Restoration Assessment and Monitoring Program for the Southwest](#) maintains a [Support For Tribes](#) webpage highlighting projects that help Tribes improve land condition in dryland ecosystems that are being increasingly disturbed by nonnative species, wildfire, drought and other problems.

### Other

- The First Nations Development Institute's [Stewarding Native Lands](#) website highlights Native ecological stewardship and connects Tribes with financial and technical assistance.
- The [Land Trust Alliance](#) empowers and mobilizes land trusts to conserve land and build people's connection to the land, including [Indigenous Peoples](#).
- The [Intertribal Agriculture Council](#) helps promote the conservation, development and use of agricultural resources for the betterment of Tribes. The website connects Tribes with programs, training, funding and [technical assistance](#) opportunities and other resources.
- The [Intertribal Timber Council](#), a USFS partner, provides Tribal forestry and natural resources information and offers training opportunities, publications and other resources, including Tribal Forest Protection Act [co-stewardship reports](#)).
- The [Tribal Lands Assistance Center](#) serves as a single point of access for information and resources regarding contaminated sites on and near Tribal lands and waters.



# Supporting and Engaging Tribal Communities

## Introduction

Tribal communities rely on a broad range of knowledge and resources to address unique conservation goals. It is often very important for Tribes to ensure that traditional subsistence needs are appropriately included into programs and that community members are engaged with conservation efforts.

Federal programs and tools are available to Tribal governments to support improving connections to environmental resources and natural places by enabling public access and enhancing recreational opportunities, protecting and preserving cultural resources such as native plant gathering areas, engaging Tribal members in educational activities focusing on environmental resources and protecting environmental resources for community health.

The [BIA WaterCorps Program](#) provides technical skills and internship opportunities to Tribal youth in the water resources field via a 26-week-long AmeriCorps service term that includes professional training and hands-on learning.



## Example Federal Planning Frameworks for Community Engagement

### National Oceanic and Atmospheric Administration

- [Marine debris action plans](#) are voluntary strategic frameworks to engage partners across a specific state or region to address the problem of marine debris. Organizations collaborate to develop goals, priorities and strategic actions to reduce the impacts of marine debris on the coastal environment and people.

### U.S. Environmental Protection Agency

- [EPA-Tribal Environmental Plans](#), as detailed in the 2022 [Indian Environmental General Assistance Program Guidance on Financial Assistance Agreements](#), outline how each Tribe and the EPA intend to work together to address shared environmental priorities via planning and communication.
- [Getting in Step: Engaging Stakeholders in Your Watershed](#) provides detailed instructions for establishing and maintaining open lines of communication within your community about natural resource conservation.

Photo: L. Cheung, USDA



A lead chanter sings and plays the drum for the Friendship Dance, a social dance procession lead by a Poarch Creek Reservation dance group from Mt. Vernon, Alabama, during the Poarch Band of Creek Indians' Second Annual Southeastern Indian Festival.



## Technical Assistance Resource Spotlights

### USDA Native Youth Resource Guide

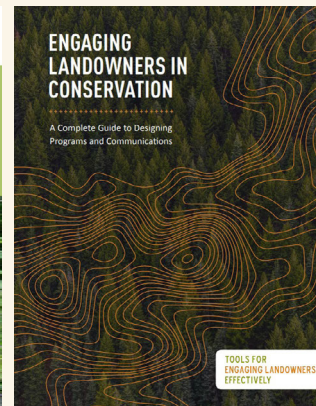
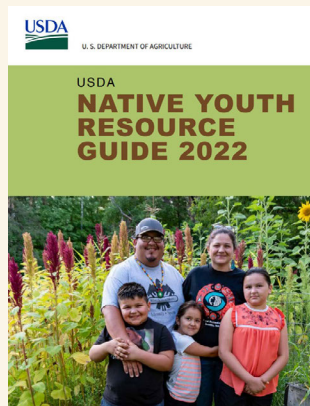
The 2002 [guide](#) connects Native youth with USDA programs and resources, including research and scholarship opportunities, internship programs and other educational resources.

### Tools for Engaging Landowners Effectively

Developed by the Center for Nonprofit Strategies and the USFS's Family Forest Research Center, this [online tool](#) helps Tribes design and implement more effective landowner outreach programs that connect with the target audiences and leverage resources to successfully achieve landscape-level goals.

### Tools of Engagement

Designed by FWS and other partners, this [Toolkit](#) helps conservation professionals think through conservation planning with communities and stakeholder engagement in mind.



Federal agencies offer various tools to help connect Tribal communities with resources and each other.

## Supporting and Engaging Communities in a Changing Climate

Teaching about climate change-related challenges is the key to ensuring your community is prepared.

- [Chapter 16](#) of the NCA5 focuses on climate change's effects on Tribes and Indigenous Peoples. This chapter explores three key messages: (1) climate change poses risks to well-being and barriers to energy sovereignty, (2) self-determination is the key to Indigenous Peoples' resilience to climate change and (3) Indigenous leadership will guide the climate change response.
- NOAA's Digital Coast – [Risk Communication](#). NOAA's toolbox of climate change-related training, publication and visualization resources helps users identify and communicate key points about climate change and its potential effects on communities.

Source: NOAA



Swinomish Indian Tribal community members built a rock wall in the intertidal zone of Skagit Bay to establish a clam garden (i.e., shellfish mariculture). The Tribe is using the clam garden for teaching, subsistence harvesting and ceremonial purposes, with the intent to protect it for future generations. See more project information and videos from the Swinomish Tribe [Clam Garden](#) and NOAA [video gallery](#) websites.

## Including Indigenous Knowledge to Support and Engage Communities

### Protecting Wild Rice and the Tribal Communities it Sustains

Manoomin, or wild rice, provides physical, spiritual and cultural nourishment for the Tribes of the Great Lakes region. Tribes' manoomin harvesting traditions are passed down through generations, strengthening social bonds and connecting the Tribal community members to their ancestors. Unfortunately, the rice has become less abundant because of water pollution, development pressures, commercial harvesting and other factors. The decline threatens the Tribes' food security and cultural practices.

Federal agencies have projects underway to protect and restore manoomin. USACE researchers are working with the Lac Vieux Desert Band of Lake Superior Chippewa Indians and other Tribes [to help improve wild rice productivity](#) via USACE Detroit District [Planning Assistance to States](#) studies. The researchers relied on Indigenous Knowledge for wild rice ecological and cultural information. NOAA's Office for Coastal Management is working with Tribes on the [Collaborative Great Lakes Manoomin Project](#), funded through the [Great Lakes Restoration Initiative](#), which focuses on protecting, monitoring and restoring wild rice and its habitat. The project uses Indigenous cultural and ecological metrics developed with Tribal partners to characterize and assess the condition of manoomin habitat.

In 2018, a [research collaboration](#) formed between Tribal communities and university partners to combine traditional Indigenous practices and knowledge with scientific monitoring to protect and restore the manoomin. For more information, see the project website: [Kawe Gidaa-naanaagadawendaamin Manoomin](#).

Source: Todd Marsee, Michigan Sea Grant



Seeding manoomin as part of the Michigan Wild Rice Initiative restoration outreach and education efforts at the 2019 Wild Rice Camp in Alberta, Michigan.

## Tribal Case Study

### Upper Snake River Tribal Foundation Community Collaboration Increases Climate Resiliency

The Upper Snake River Tribes Foundation, or USRT, is an intertribal consortium representing four Tribes in the Upper Snake River region whose ancestral homelands are being significantly affected by climate change. Rising temperatures, declining snowpack and more frequent droughts and wildfires threaten water resources, traditional food sources and cultural practices – adding to existing problems caused by fish passage barriers (see [story map](#)). Recognizing this urgency, USRT launched a climate change initiative aimed at helping Tribal communities understand and respond to the challenges of a changing climate.

Over the past decade, USRT has received awards to improve climate resiliency. Beginning in 2015, USRT used funds from from the EPA's [Indian Environmental General Assistance Program](#) and BIA's [Tribal Climate Resilience Program](#) to conduct a climate change vulnerability assessment of aquatic, terrestrial and Tribal enterprise resources.

Beginning in 2020, USRT received support from the USGS [Northwest Climate Adaptation Science Center](#), EPA and BIA to develop a national [Tribal Resilience Action Database](#). Released in early 2024, this database informs other Tribes' efforts.

In 2023, USRT received an EPA [Climate Pollution Reduction Grant](#) to engage in detailed emissions reduction planning. This led to the release of its [USRT Priority Climate Action Plan](#) in April 2024. USRT will begin the second planning phase to complete a Comprehensive Climate Action Plan, which will provide each member Tribe with a roadmap to achieve climate-related goals while improving ecological, community and economic health.

The USRT continues to develop Tribal communities' capacity to tackle climate-related challenges. Using many BIA Tribal Climate Resilience grants totaling over a half-million dollars since 2017, the group has increased Tribal leader awareness and conducted initiatives for all Tribal members. Projects include community engagement workshops and tours, climate literacy materials, youth education and guidance on climate resiliency in streams and riparian habitats. USRT is sharing educational materials across the Pacific and Inland Northwest to help other Tribes.

USRT emphasizes educating Tribal youth as a keystone to climate resiliency. Since 2022, the group has held Tribal Climate Resilience-funded climate resilience summer camps that encourage a deeper understanding of the interconnectedness of the environment and the Tribal communities' well-being. The camp also emphasizes preserving Indigenous Knowledge to help develop the next generation of Tribal environmental leaders. To further engage and empower youth, USTR created a Tribal Youth Environmental Justice and Climate Leadership Program in 2023 with support from the EPA's [Environmental Justice Collaborative Problem-Solving Cooperative Agreement Program](#).



USRT represents:

- The [Burns Paiute Tribe](#)
- The [Fort McDermitt Paiute-Shoshone Tribe](#)
- The [Shoshone-Bannock Tribes of the Fort Hall Reservation](#)
- The [Shoshone-Paiute Tribes of the Duck Valley Reservation](#)



Source: Upper Snake River Tribes Foundation

Tribal youth collect macroinvertebrates during the USRT's 2022 Youth Climate Camp.



## Federal Funding Assistance Programs Spotlight

### Environmental Justice Thriving Communities Grantmakers Subgrants (EPA)

- **Description:** Environmental Justice Thriving Communities Grantmakers collaborate with EPA's Office of Environmental Justice and External Civil Rights to issue competitive subgrants to support capacity building in disadvantaged communities affected by environmental or public health issues.
- **Eligible activities:** Conducting assessments and planning and implementing projects to build capacity.
- **Applicant notes:** Open to federally and state-recognized Tribal governments and intertribal consortia, Native American organizations, nonprofit organizations and others.
- **Funding:** Three tiers of grants: (1) \$150,000 for assessment, (2) \$250,000 for planning and (3) \$350,000 for project development. In addition, \$75,000 will be available for capacity-constrained, community-based organizations through a noncompetitive process under Tier One. Each Grantmaker will design and implement a distribution program suited for their region/communities. Applicants should prepare budgets for up to \$50M over 3 years (up to ~\$16.5M annually).
- **Information:** See EPA's [Thriving Communities Grantmakers Subgrants](#) website.

### Indian Environmental General Assistance Program (EPA)



- **Description:** Federally recognized Tribal governments and intertribal consortia can use these funds to: (1) plan, develop and establish the capacity to implement programs administered by the EPA; (2) develop and implement solid and hazardous waste programs for Indian lands; and (3) collect, transport, backhaul and dispose of solid waste and recovered materials. The program also provides technical assistance for developing multimedia programs to address environmental issues.
- **Eligible activities:** Activities closely related to building environmental capacity consistent with the EPA's statutory authorities and activities that help implement solid and hazardous waste programs.
- **Applicant notes:** [TAS](#) is not required.
- **Funding:** \$75M was awarded in 2023. Average award amount: \$120,000. Range of awards: \$75,000 – \$400,000. No match is required. Application deadlines vary by region.
- **Information:** See EPA's [Indian Environmental General Assistance Program](#) website.

### Tribal Youth Initiative Program (BIA)



- **Description:** Competitive grants to help develop and support Tribal youth programs that provide opportunities for youth to engage in the field of natural resource management and encourage their interest in pursuing educational opportunities and careers in natural resources management.
- **Eligible activities:** Projects that engage and employ Tribal youth and introduce them to unique internships and job opportunities that encourage protecting and improving the trust assets of Native Americans, Tribes and Alaska Natives; preserving and maintaining natural and cultural resources; and enhancing the conservation stewardship of the land, water and earth. Projects should promote education through hands-on experiences while developing the necessary skills of future scientists.
- **Funding:** Requests may range from \$2,000 to \$50,000 per application.
- **Reporting requirement:** Submit a final report within 90 days of project completion.
- **Information:** See BIA's [Tribal Youth Initiative](#) website.



## Tribal Tourism Grant Program (BIA)



- **Description:** The annual competitive Tribal Tourism Grant Program helps Tribes evaluate and identify viable tourism business opportunities for their communities, including those focused on agrotourism, cultural heritage tourism and natural resource-based tourism. The program aims to support Tribal economic development and provides funding for Tribes to conduct feasibility studies to inform decisions about potential tourism projects. The program also provides funding for Tribes to develop business plans for Tribal tourism businesses and already-completed tourism feasibility studies.
- **Eligible activities:** Conducting tourism project feasibility studies and developing business plans.
- **Funding:** Total awarded in 2022: \$3M; award range: \$25,000 – \$150,000; average award: \$100,000.
- **Information:** See BIA's [Tribal Tourism Grant Program](#) website.



Source: USGS

Through the [Restoration Assessment and Monitoring Program for the Southwest](#), USGS is helping the Navajo Nation community build capacity in ecosystem restoration.

## Resource Links

### Federal

#### ■ EPA

- The [Thriving Community Network Map Explorer](#) shows technical assistance and capacity-building resources for Tribal communities and others experiencing a history of economic distress and systemic disinvestment. These federal resources include grant and financial management support, predevelopment assistance, community engagement, planning and project delivery support.

#### ■ NASA

- The [Indigenous Peoples Initiative](#) focuses on building relationships across NASA and Indigenous communities through place-based remote sensing training, community engagement and knowledge development.

#### ■ NOAA

- The Road Map to Working with Indigenous Communities outlines NOAA's efforts to work closely with Tribes to build community capacity. Ongoing efforts are highlighted in the following two webpages: (1) the National Marine Sanctuary Office's [Responsibilities, Commitments, and Actions](#) and (2) [Building stronger partnerships with Tribal Nations in the North Atlantic](#), which examines NOAA's expanded engagement with Tribal Nations in the North Atlantic region to increase capacity and provide helpful resources.

#### ■ NPS

- The [Tribal Historic Preservation Program](#) supports the establishment of Tribal Historic Preservation Offices under Section 101 of the *National Historic Preservation Act*.

#### ■ USFS

- The [Indian Youth Service Corps](#) provides paid education, employment and training opportunities through conservation projects on public and Tribal lands.

### Other

- The American Philosophical Society's [Center for Native American and Indigenous Research](#) engages with Indigenous peoples and scholars via collaborative, community-engaged work in language and cultural revitalization, particularly the relationships between Indigenous Knowledge and the information available in archival materials.
- The [Institute for Sustainable Communities](#) collaborates with various organizations to address climate and sustainability challenges using community-based solutions and partnerships.

## 5. Looking to the Future

Across North America, Indigenous Peoples play a unique and critical role in protecting and restoring natural resources. Indigenous communities have the longest-standing relationship and reciprocity value system with the natural world. You and your community's views are extremely valuable perspectives to bring into conversations about environmental protection. However, Tribal environmental programs face challenges when tackling the impacts of water and air pollution, wildlife habitat loss, climate change and other threats to their lands and the livelihood of their communities. To address these challenges, Tribes across North America are partnering with their fellow agencies and off-reservation stakeholders to tackle these daunting issues. We hope this guide helps Tribal environmental program managers and staff more easily find federal resources to support their work.

Given that the availability of federal resources changes and evolves, we encourage Tribal environmental staff to refer to agency websites and speak to their contacts in federal agencies to stay updated on assistance opportunities. In addition to [Grants.gov](https://www.grants.gov) and the [Access to Capital Clearinghouse](https://www.access-to-capital-clearinghouse.gov), several other interagency resource listings locations are available:

- [Conservancy.gov](https://www.conservancy.gov), a federal interagency information hub, is designed to connect people with resources to empower locally led efforts to conserve and restore lands, waters and wildlife.
- [Federal Partner Funding and Technical Assistance Opportunities](https://www.federalpartnerfundingandtechnicalassistanceopportunities.gov) offers links to funding and technical assistance opportunities across the federal government.
- [Rural.gov Tribal Programs](https://www.rural.gov/tribal-programs) describes federal resources available to support community development, disaster response and natural resource protection.
- [Technical Assistance and Resources for Tribal Nations](https://www.technicalassistanceandresourcesfortribalnations.gov) offers information about technical assistance and funding opportunities for electrified transportation.

*"We only have one earth. Let's take care of it."*

— Deb Haaland, enrolled member of the Pueblo of Laguna member and the 54th U.S. Secretary of the Interior ([The Hill, 04/20/2020](https://www.thehill.com/policy/energy-environment/deb-haaland-04-20-2020/))



Source: FWS

■ Bird takes flight during a 2022 visit by the Secretary of the Interior Deb Haaland to the Okefenokee National Wildlife Refuge.

Photo: P. Keres, USFS



Tribal Ecological Trainees from Klamath Tribes and affiliates work as part of the 2023 Tribal Ecological Forestry Training Program on the Lomakatsi Restoration Project in southwest Oregon's Siskiyou Mountain Park. Programs like this support projects funded under USFS's Community Wildfire Defense Grant program, which assists at-risk communities, including Tribal communities, with planning for and mitigation of wildfire risks.

# Endnotes

- <sup>1</sup> The White House Council on Native American Affairs leads collaborative interagency work across the Executive Branch, regular and meaningful Tribal-federal engagement, and an all-of-government approach in meeting treaty and trust obligations to Tribes. For more details, see <https://www.bia.gov/whcnaa>.
- <sup>2</sup> The 2023 image was created by Coral Avery, a citizen of the Shawnee Tribe of the Shawnee, with support from BIA Tribal Climate Resilience funds through USGS's Northwest Climate Adaptation Science Center. <https://www.usgs.gov/media/images/artwork-webinar-series-incorporating-indigenous-knowledges-federal-research-and>.
- <sup>3</sup> <https://www.bia.gov/faqs/what-federal-indian-reservation>
- <sup>4</sup> This guide uses the term Indigenous Knowledge, but we recognize that other terms are used by or are more familiar to different people, including Traditional Knowledge, Traditional Ecological Knowledge and Native Science.
- <sup>5</sup> Blasch K., S. Hundt, P. Wurster, Sando R, A. Berthelote. 2018. Streamflow contributions from tribal lands to major river basins of the United States. *PLoS ONE* 13(9): e0203872. <https://doi.org/10.1371/journal.pone.0203872>
- <sup>6</sup> Native American Fish and Wildlife Society. *The Recovering America's Wildlife Act*. <https://www.nwf.org/-/media/Documents/PDFs/Wildlife-Conservation/RAWA-Tribal-fact-sheet.pdf>
- <sup>7</sup> <https://www.fws.gov/sites/default/files/documents/fy24-twg-foa.pdf>
- <sup>8</sup> Cordalis, D. and D.B. Suagee. 2008. The Effects of Climate Change on American Indian and Alaska Native Tribes. *Natural Resources & Environment* 22(3). American Bar Association. [https://www.americanbar.org/content/dam/aba/publications/natural\\_resources\\_environment/2008\\_winter/nre\\_win08\\_cordalis\\_suagee.authcheckdam.pdf](https://www.americanbar.org/content/dam/aba/publications/natural_resources_environment/2008_winter/nre_win08_cordalis_suagee.authcheckdam.pdf)
- <sup>9</sup> [NCA5](#)
- <sup>10</sup> [NCA5](#)
- <sup>11</sup> [NCA5](#)
- <sup>12</sup> [FEMA Tribal Hazard Mitigation Planning Handbook](#)
- <sup>13</sup> <https://www.bia.gov/faqs/what-federal-indian-reservation>
- <sup>14</sup> <https://efotg.sc.egov.usda.gov/references/public/va/IndigenousStewardship.pdf>
- <sup>15</sup> <https://nativeland.info/dashboard/land-covers-on-native-lands-in-the-coterminous-united-states/>
- <sup>16</sup> <https://efotg.sc.egov.usda.gov/references/public/va/IndigenousStewardship.pdf>
- <sup>17</sup> Waller, D.M. and Reo, N.J. 2018. *First Stewards: Ecological Outcomes of Forest and Wildlife Stewardship by Indigenous peoples of Wisconsin, USA*. Dartmouth Scholarship. <https://digitalcommons.dartmouth.edu/facoa/3482>
- <sup>18</sup> Sierra Nevada Ecosystem Project. 1996. *Final report to Congress, vol. II, Assessments and scientific basis for management options*. Davis: University of California, Centers for Water and Wildland Resources. [https://pubs.usgs.gov/dds/dds-43/VOL\\_II/VII\\_C09.PDF](https://pubs.usgs.gov/dds/dds-43/VOL_II/VII_C09.PDF)