BIA Branch of Tribal Climate Resilience Overview





Program Coordinator & Climate Science Coordinator: Rachael Novak

Environmental Protection Specialist: Alexis Wagner

Climate Planning Specialist: Alyssa Samoy

Natural Resources Specialists: Corwin Carroll (national support) & Coral Avery (Northwest Region)

TCR Detailee and Southern Plains Region POC, Water Program Manager: Crystal Keys













Tribal Climate Resilience (TCR) Overview

- 1. Purpose
- 2. Awards Program
- 3. Training
- Technical Support, Helpful Resources and Partnerships
- 5. Examples from BIA DEMD partner funding



TCR Purpose

To enable *climate preparedness* and *resilience* in all Indian Affairs programs and for all Federally-recognized Tribal Nations and Alaska Native villages:

Technical assistance

- Access to appropriate science
- Educational and training opportunities
- Regional network of liaisons
- Regional BIA support

Financial assistance

- Annual Awards Program
 - Includes dedicated support for ocean & coastal management efforts
- Bipartisan Infrastructure Law funding for relocation-related support

See "About Us" page: https://www.bia.gov/tcr-about-us

TCR Focus Area

Support Tribal climate priorities around climate impacts such as:

- extreme events (e.g., flooding, storm surge, increased frequency and intensity of wildfires, harmful algal bloom events, etc.), and
- chronic and compounding events (sea level rise, erosion, permafrost degradation, prolonged drought, ocean acidification, etc.)

TCR supports resilient adaptation **planning and preparedness** for these events, ocean and coastal management planning, and relocation, managed retreat and protect-in-place planning in coastal and riverine communities.

TCR now also supports some implementation as well.

TCRP Focus Areas

TCRP supports resilient adaptation planning and implementation for climate risks

TCRP supports management, and relocation, managed retreat and protect-in-place planning in coastal and riverine communities

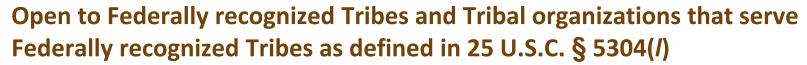
TCRP also supports ocean and coastal management and planning

Includes Great Lakes tribes



Awards Program

Annual Awards Program Solicitation



- Can be found on the Annual Awards Program site page and the ECO Opps application site
 - Annual Awards Program: https://www.bia.gov/bia/ots/annual-awards-program
 - ECO Opps: https://sciencebase.usgs.gov/eco-opps/#/
- Opened Apr. 11th 2022, closes Jul. 6th 2022
- Must submit proposals directly via ECO Opps
- Please limit length to **6 pages** for the proposal content requirement, not including supplemental materials
- Other entities may participate as sub-grantees (Tribes will be awarded and may partner with a sub-contractor/organization)











Annual Awards Program Solicitation

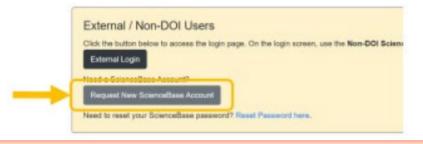
Can be found on the Annual Awards Program site page and the ECO Opps application site

- Annual Awards Program: https://www.bia.gov/bia/ots/annual-awards-program
- ECO Opps: https://sciencebase.usgs.gov/eco-opps/#/

APPENDIX

USGS ECO Opps Registration:

You must setup a new ScienceBase Account at https://sciencebase.usgs.gov/eco-opps in order to access the ECO Opps platform. Setting up a new ScienceBase Account instructions are provided below:





Categories of Funding

Categories of Funding









Climate Adaptation (Categories 1, 2, 3, 6, 10, and 13)

- Cat 1: Trainings and Workshops (\$150,000 max)
- Cat 2: Adaptation Planning (\$250,000 max)
- Cat 3: Travel Support for Adaptation Planning (\$15,000 max)
- Cat 6: Capacity Building for Scoping Efforts (\$65,00 max)
- Cat 10: Implementation of Climate Adaptation Strategies (\$2,000,000 max)
- Cat 13: International ITEK Virtual Exchange (\$10,000 max)

Ocean & Coastal Management Planning (Categories 4 and 5)

- Cat 4: Ocean & Coastal Management Planning (max \$150,000)
- Cat 5: Travel Support for Ocean & Coastal (\$15,000)

Categories of Funding (cont.)



Relocation, Managed Retreat, or Protect-in-Place (Categories 7, 11, and 12)

- Cat 7: Relocation, Managed Retreat, or Protect-in-Place Planning (\$300,000 max)
- Cat 11: Implementation of Relocation, Managed Retreat, or Protect-in-Place Actions (\$3,000,000 max)
- Cat 12: Relocation, Managed Retreat, or Protect-in-Place (RMP)
 Coordinator (max: \$100,000 per year for up to 3 years)

Internships & Youth Engagement (Categories 8-9)

- Cat 8: Internships (\$50,000 max)
- Cat 9: Youth Engagement (\$50,000 max)

Notable Items









Increases to Categories of Funding

- Category 2: Maximum increased from \$150,000 to \$250,000
- Category 7: Maximum increased from \$150,000 to \$300,000

New Platform for Applying

- •Applicants must create an account on the Eco-Opps Science Base, typically taking 24 hours to process. **Create the account at least 24 hours prior to applying.**
- •Applicants must apply through Eco-Opps Science Base https://sciencebase.usgs.gov/eco-opps/#/ (do not email it to resilience.funding@bia.gov but please feel free to continue to submit questions to this email).

TCR Awards- Indian Country & AK Native Villages

- Since 2011, over 700 awards, worth over \$74 million
- Before 2022, annual awards budget ~\$8-15 million (Congress appropriated)
- In 2022, significant increases from Infrastructure Investment and Jobs Act and 2022 Annual Appropriations, now specifically allowing for implementation

Year	Number of Awards	Amount Awarded
2019	119	\$8.7M
2020	159	\$14.4M
2021	135	\$13.85M
2022	TBD	~\$46M (TBD)

See summaries of previous years' awards here: https://www.bia.gov/bia/ots/annual-awards-program



Training

Trainings and Workshops

Training Partner: Northern Arizona
University's Institute for Tribal Environmental
Professionals (ITEP) Climate Change Program

- Tribal Climate Change 101 Trainings
- Advanced Climate Change 201 Cohort Groups
- Biennial Virtual National Tribal and Indigenous Climate Conference 2020-1,700 attendees, 230 tribes, in 2022 Aug. 29-Sept. 1, 2022, St. Paul, MN
- https://sites.google.com/view/nticcitep/home
- "Today's Stewards: Tomorrow's Ancestors"







Photos: Feb 2017 training, Institute for Tribal Environmental Professionals



Technical Support and Reports

Regional Support-DOI Climate Adaptation Science

Centers

"Partnership-driven program that teams scientific researchers with natural and cultural resource managers and local communities to help fish, wildlife, waters, and lands across the country adapt to changing conditions." https://www.usgs.gov/ecosystems/climate-adaptation-science-centers



Projects by Region



Wildlife and Plants



Drought, Fire and Extreme Weather



Water, Coasts and Ice







Landscapes

Native Communities

Science Tools for Managers Webinars

Regional Support-Tribal Climate Resilience

Liaisons

Tribal Climate Resilience Liaisons are located at Regional DOI Climate Adaptation Science Centers (CASCs)



































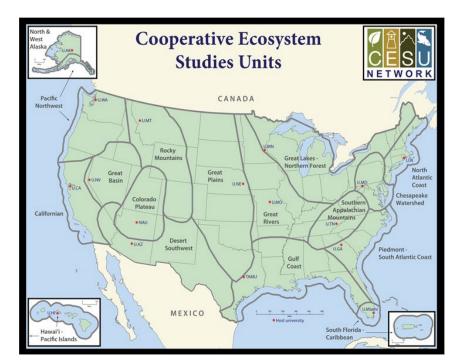
Want to partner with expertise at a university?

 BIA partnership in the CESU network allows Tribes to access expertise at a low 17.5% indirect cost rate. This pans out to more funds to support project.

 Check if your partner is at a participating institution here:

http://www.cesu.psu.edu/

 Write it into your proposal! (Summary, Proposal description and Budget.)











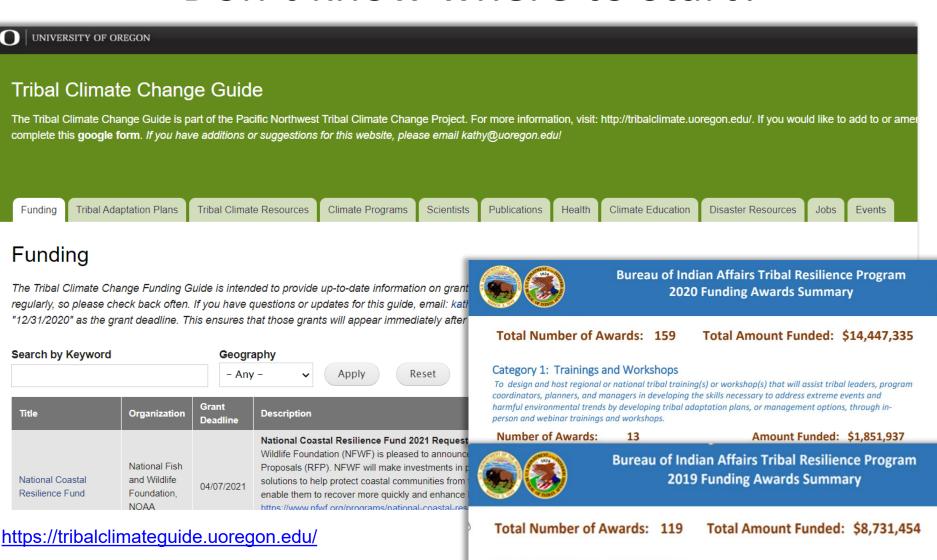


Don't know where to start? Examples

- Indigenous Peoples Resilience Actions Map (>1100 entries!)
- Search the online version of the map by activity type, region, and sector to find more information and links to each project: https://biamaps.doi.gov/nca/



Don't know where to start?



Category 1: Trainings and Workshops

Number of Awards: 13

To Design and Host Opportunities to Build Skills and Coordinate Adaptation Planning Processes

Amount Funded: \$1,803,655

https://www.bia.gov/bia/ots/annual-awards-program

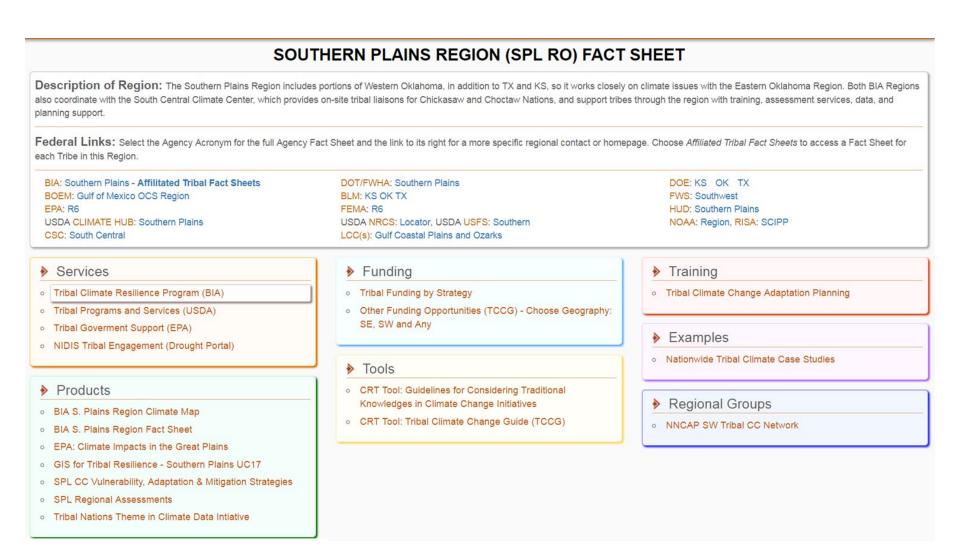
National Climate Assessment



Regional Chapters all include Indigenous-focused content and Key Messages

https://nca2018.globalchange.gov/chapter/15/

Regional Fact Sheet available in Tribal Resilience Resource Guide



Tribal Fact Sheet available in Tribal Resilience Resource Guide

Names (Federal Register): Navajo Nation, Arizona, New Mexico & Utah

Federal Links: Select the Agency Acronym (blue link) for an Agency Fact Sheet and the orange link to its right for regional contacts or homepage.
For more information, hover over a link for agency or program details before making a selection.

Tribal: Official Website (or group site)

BIA Region: Navajo Regional Fact Sheet
Navajo Regional Office
LCC: Southwest
USDA CLIMATE HUB: Southwest
USDA NRCS:Locator USDA USFS: Southwestern
NOAA: Region RISA: CLIMAS

Awards

EPA: R9 FEMA: R9

- FY11 Climate Adaptation Planning
- FY15 Management Internships
- o FY15 Travel (Climate)
- FY15 Youth Engagement
- FY16 Climate Adaptation Planning
- FY16 Travel (Climate)
- o BIA TCRP FY11-16 Awards Map
- More Climate Funding Options

Groups

- Dine College
- Native American Fish and Wildlife Association (NAFWS)
- Navajo Technical College

Documents

DOT/FWHA: Mountain West

- Connectivity of Habitats on Navajo Nation Lands
- Considerations for Climate Change and Variability Adaptation on the Navajo Nation
- NN CC Vulnerability Assessment for Priority Wildlife Species

Tools

- Tribal Drought Information for Monitoring, Assessment, and Planning (DRI MAP)
- CRT Tool: Guidelines for Considering Traditional Knowledges in Climate Change Initiatives
- CRT Tool: Tribal Climate Change Guide
- CRT Tool: Tribal Climate Change Adaptation Planning Toolkit
- Other Tribal Nations Examples

Examples

HUD: Southwest

- CRT Case Study: Navajo Nation: Hotter, Drier Climate Puts Sand Dunes on the Move
- o ITEP TCC Profile: Dune Study Offers Clues to Climate Change
- o Other Tribal Nations Examples

Data & Maps

- Conservation Planning Atlas
- EPA Climate Impacts by State for: AZ
- HUC8: 15020013 Polacca Wash Resource Links
- NN Zoo: Facts on Desert Bighorn Sheep and Other Species
- NOAA NCEI AZ State Climate Summary
- Toolkit Climate Explorer 2.0: Projected Temperature & Precip -Apache County
- Toolkit Climate Explorer 2.0: Projected Temperature & Precip -Coconino County
- o Tribal Nations Geospatial Data
- Tribal Nations Map Gallery



Examples of BIA Resources more focused on energy/renewable energy: TCR and Division of Energy and Mineral Development (DEMD)

TCR Examples



Big Sandy Rancheria Band of Western Mono Indians, 2021 Award

- Advancing Climate Change Adaptation for Big Sandy Rancheria through Wood Energy Development and Workforce Training
- Multiple co-benefits: energy assessment of biomass (feasibility) and preliminary design of biomass combined heat and power system as climate adaptation strategy, training/employment opportunities, reduction in wildfire risk, and increase energy resilience

TCR Examples



Northwest Indian College, 2021 Award

- Summer Solar K-12 Youth Engagement Activities
- Youth focused hand-on STEM unit linking engineering of solar energy to humanitarian service through building and sharing portable solar electric systems called Solar Suitcases.
- Connects students at NWIC to K-12 youth and also provided a Solar Suitcase to youth home or community center where needed.

TCR Examples



Nez Perce Tribe, 2020 Award

- Seeds of Sovereignty- Planning for Food Security and Cultural Survival in a Changing Landscape
- Project assisting in food and energy sovereignty for the Tribe.
- Community garden of traditional foods, food map, food trail design that weaves gardens, native plant areas, future solar projects and sustainability into a cohesive whole.

BIA DEMD Programs and Services

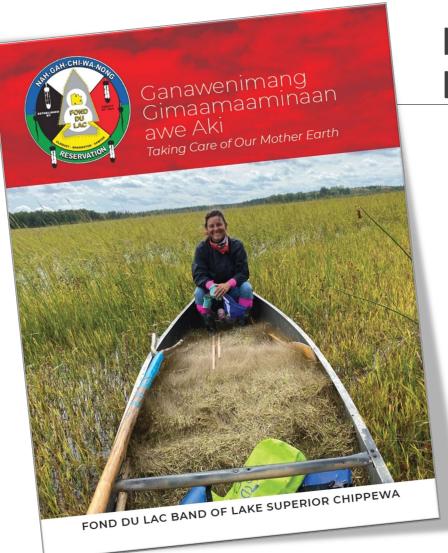
Mission: Provide the best possible technical and economic advice and services in assisting Indian mineral owners to achieve economic self-sufficiency by creating sustainable economies through the environmentally sound development of their energy and mineral resources.

Technical Assistance and Business Advising

Grant Programs

- Energy and Mineral Development Program
- Tribal Energy Development Capacity Program





Implementing the Fond du Lac Band's Energy Vision

2007 Pledge to Kyoto Protocol

Energy Feasibility Studies with DEMD

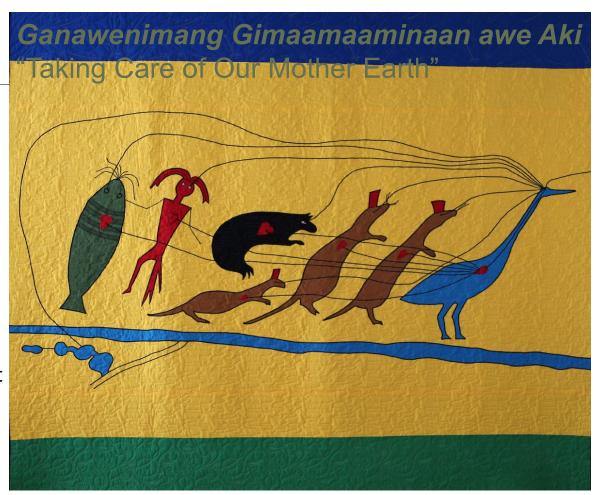
- Wind
- Pellet Manufacturing
- Waste to Energy
- Natural gas
- Solar
- Biomass heating
- Microgrids
- Tribal Utility

Includes both direct and indirect influences on FDL accomplishments.

Fond du Lac Band

Accomplishments – some through DEMD grants and TA

- Kyoto Protocol pledge to reduce emissions
- Vision for energy efficiency and development, within cultural traditions
- 50% reduction in fossil fuels
- 80% reduction in carbon emissions
- 70% broadband deployment
- Improvements to community health and economy
- Midwest Regional leadership



Other Success Stories – DEMD funds can lead to other funding opportunities

Metlakatla Indian Community

- <u>2022 DOE Award-</u> Hydro Turbine Replacement and Battery System; increased energy resilience and increase turbine production by 20%.
- <u>2021 DOE Award-</u> Metlakatla to Ketchikan Intertie; reliable power generation to the community saving \$500K annually.
- 2015 DEMD EMDP- Intertie Feasibility Study
- <u>2014 DEMD EMDP-</u> Purple Lake Hydro Feasibility Study
- <u>DEMD TA-</u> including planning efforts resulting in the Hydro and Intertie Projects.

Pueblo of Laguna

- <u>2022 DOE Award-</u> Installation of 53kW of Solar PV on Community Buildings; savings of \$174K in energy costs.
- 2019 DEMD EMDP- Building Solar Assessment and Design Study.

Pala Band of Mission Indians

- 2021 DOE Award- 1MW of solar PV Systems and 10kW Battery Storage; Saving the Tribe \$6.4 million over 25 years,
- <u>2018 DEMD EMDP-</u> Solar Feasibility Study; determining cost savings.

DEMD CONTACT

Jennifer Reimann Acting Branch Chief, Renewable and Distributed Generation (720) 407-0669 jennifer.reimann@bia.gov

www.bia.gov/DEMD





Other Helpful Resources and Closing

Other Helpful Resources

- BIA's Tribal Resilience Program Home Page: https://www.bia.gov/bia/ots/tribal-resilience-program
- Tribal Resilience Resource Guide: <u>https://biamaps.doi.gov/tribalresilience/resourceguide/</u>
- NAU's Institute for Tribal Environmental Professional's http://www7.nau.edu/itep/main/tcc/Resources/newsletters
- UO's Tribal Climate Change Guide: http://tribalclimateguide.uoregon.edu/
- Cooperative Ecosystem Studies Units: http://www.cesu.psu.edu/

Thank you/Ahe'hee!

For more programmatic questions, please email rachael.novak@bia.gov or alyssa.samoy@bia.gov;

For questions on the application process, please contact jo.metcalfe@bia.gov;

The presentation will be recorded and archived for those unable to attend the live session. A link to this will be available at the ITEP website here:

http://www7.nau.edu/itep/main/tcc/Training/Webinars_Schedule.

