



Biden-Harris Administration Announces \$120 Million from President's Investing in America Agenda to Enhance Climate Resilience in Tribal Communities

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WASHINGTON — The Department of the Interior today announced that more than \$120 million from President Biden's Investing in America agenda will fund 146 projects to help Tribal communities plan for and implement projects to tackle severe climate-related environmental threats to their homelands.

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The Tribal Climate Resilience Annual Awards Program supports both planning and implementation projects, including for climate adaptation planning, community-led relocation, managed and partial relocation, protect-in-place efforts, ocean and coastal management, and habitat restoration and adaptation. A summary of awards by Tribe, title, funded amount, and project description can be found on the [Bureau of Indian Affairs website](#).



Total Number of Awards: 146

Total Amount Funded: \$120,834,164

Category 1: Planning

Category 1, Planning awards are designed to support the development of climate change considerations into formal planning documents, vulnerability assessments, and the development of data analysis efforts including supplementary monitoring. If management plans have already been established, funds may be used for planning and preliminary design related to implementation, such as feasibility studies and desktop assessments. The Planning category is intended to provide as much flexibility as possible and broadens the scope of types of proposals allowed to address diverse and complex Tribal climate concerns.

Number of Awards: 63

Amount Funded: \$13,868,009

Tribe:	Alturas Indian Rancheria, California	Amount Funded:	\$227,273
Title:	<i>Climate Resilience Adaptive Planning</i>		

Project Description: The Alturas Indian Rancheria faces an array of issues that threaten its environment, resources, and traditional way of life. The impacts of climate change reverberate through local ecosystems, impacting customary practices like hunting and gathering, while also altering cultural heritage and socioeconomic dynamics. To address these pressing challenges, the planning project aims to conduct an extensive evaluation of climate change's impacts on the Rancheria's geographic area. By pinpointing vulnerabilities and addressing data gaps specific to this region, the plan will lay a strong foundation for effective resilience strategies. A thorough examination, bolstered by geographic maps and detailed analyses, will illuminate the unique risks the Alturas Indian Rancheria faces due to its location and technology, and ensure a culturally sensitive and robust Vulnerability Assessment and Adaptive Strategic Plan.

Tribe:	Big Valley Band of Pomo Indians of the Big Valley Rancheria, California	Amount Funded:	\$237,225
Title:	<i>Climate Adaptation Plan and Assessing Impacts to Traditional Lifeways for the Big Valley Band of Pomo Indians</i>		

Project Description: The Big Valley Band of Pomo Indians are descendants of the Xa-Ben-Na-Po Band of Pomo Indians and have historically inhabited the area encompassing Clear Lake, the largest natural freshwater lake located wholly within the state of California, for over 11,800 years. Climate change may contribute to increasing frequency and duration of harmful algal blooms in Clear Lake; and wildfires, extreme storm events and increased runoff-induced sediment transport may result in greater mobilization and exposure to metals contamination. The Climate Adaptation Plan to be developed by the Tribe will describe the current and projected climate challenges the Tribe is facing; characterize specific Tribal lifeways that are essential components of the Tribe's identity and how climate change is threatening this way of life (in part based on the monitoring data collected to date); identify climate adaptation actions that can help build resiliency and sustain the Tribe's lifeways; and lay out the Tribe's approach for implementing these actions and monitoring for their success.

Tribe:	Burns Paiute Tribe	Amount Funded:	\$242,500
Title:	<i>Planning for a New Bridge at the Burns Paiute Tribe's Malheur River Wildlife Mitigation Site</i>		

Project Description: The historic bridge crossing the Malheur River at Jonesboro in the Burns Paiute Tribe's Malheur River Wildlife Mitigation Site is aging and was damaged in a recent flash flood and debris slide event. Climate change



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makes it more likely that future events will occur and inflict further damage. As such, the Burns Paiute Tribe will plan a new, climate resilient bridge using modern construction best practices and sited in a better location when considering the likelihood of future floods and slides.

Tribes:	Central Council of the Tlingit & Haida Indian Tribes	Amount Funded:	\$249,804
Title:	<i>Tlingit & Haida Feasibility Study for Water Quality Testing in Southeast Alaska</i>		

Project Description: The Central Council of the Tlingit & Haida Indian Tribes of Alaska's project will enhance climate resilience in Southeast Alaska by assessing the viability of a water quality testing facility in Juneau. The feasibility study will serve as a roadmap to guide prospective laboratory development by outlining recommended methodologies, procedures, and logistics.

Tribes:	Cher-Ae Heights Indian Community of the Trinidad Rancheria, California	Amount Funded:	\$250,000
Title:	<i>Trinidad Rancheria Climate Adaptation Plan Project</i>		

Project Description: The Cher-Ae Heights Indian Community of the Trinidad Rancheria, hereafter referred to as Trinidad Rancheria, is a sovereign Tribal Nation and community of Native American people living within the coastal redwood forest of Northern California. To transform the Tribe's ability to prepare for, recover from, and adapt to climate impacts, it is necessary to understand the Tribe's vulnerabilities, develop a plan to address the Tribe's vulnerabilities through climate adaptation, and build tribal capacity to implement actions identified in the climate adaptation plan. The project will address vulnerability to climate change impacts through a series of planning activities including climate adaptation planning, capacity-building, knowledge gathering, tribal climate resiliency internships, youth engagement, and community outreach. Throughout the process, the Tribe will evaluate threats such as sea level rise, coastal erosion, and marine animal disease that impact the Tribe's economic, cultural, and natural resources and identify well-planned climate adaptation implementation actions that will minimize these harms by counteracting adverse climate impacts and lessen the vulnerability of tribal members. The development of the vulnerability assessment and adaptation plan will incorporate data collection efforts to understand and address climate change impacts to tribal resources integrating climate science, technical information, and Indigenous Knowledge (IK).

Tribes:	Chignik Bay Tribal Council	Amount Funded:	\$248,989
Title:	<i>Indian Creek Bridge and Landfill Road Preliminary Engineering Report</i>		

Project Description: The village of Chignik is located on the Pacific side of the Alaska Peninsula in Anchorage Bay. The project involves developing a Preliminary Engineering Report that will assess alternatives to rehabilitate the Indian Creek Bridge and Landfill Road, which currently serve as the primary and only evacuation route for the Community during extreme tsunami and flood events. Landfill Road is narrow and in poor condition with inadequate drainage, while Indian Creek Bridge is experiencing erosion and other structural issues. The Preliminary Engineering Report will also evaluate options for a new emergency staging pad that will allow people to gather safely on high ground and provide space for a future tsunami shelter.

Tribes:	Chilkoot Indian Association (Haines)	Amount Funded:	\$234,515
Title:	<i>Planning for Resilience – Developing a Climate Adaptation Plan for the Chilkoot Indian Association</i>		

Project Description: The Chilkoot Indian Association (CIA) is the tribal government of the Lkoot Kwáan (Chilkoot Tlingit) people of Deishu (Haines), Alaska at the northern end of the Inside Passage. The changing climate is altering the timing, abundance, and dependability of many traditional resources. Additionally, landscape changes such as altered and more

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intense precipitation, snowpack, and geohazards such as landslides have posed impacts to CIA's infrastructure and tribal members security. Through the development of a Climate Adaptation Plan, the Chilkoot Indian Association will identify those areas of traditional life and infrastructure that are most vulnerable to climate change and develop adaptation strategies to foster climate resilience for the Chilkoot.

Tribes:	Chitimacha Tribe of Louisiana	Amount Funded:	\$250,000
Title:	<i>CTL - Planning Support for Drainage Projects</i>		

Project Description: The Chitimacha Tribe of Louisiana, a federally recognized coastal tribe aboriginal to South Louisiana, has for many years been included peripherally and by addendum in the St. Mary Parish (County) Hazard Mitigation Plans submitted to and approved by FEMA. The Chitimacha Tribe is in the process of preparing their own government-to-government Hazard Mitigation Plan for submission to and approval by FEMA prior to St. Mary Parish Hazard Mitigation Plan's next scheduled update in 2025. The Chitimacha Tribe of Louisiana will perform engineering and other studies necessary to move drainage improvement projects included in the FEMA-approved 2020 St. Mary Parish Hazard Mitigation Plan list to the shovel-ready stage.

Tribes:	Confederated Salish and Kootenai Tribes of the Flathead Reservation	Amount Funded:	\$250,000
Title:	<i>Shrinking my carbon footprint: A baseline for CSKT climate actions</i>		

Project Description: The Confederated Salish & Kootenai Tribes (CSKT) "Shrinking My Carbon Footprint" (AKA "Shrinking Carbon") project will kick off a cross-sector, intergenerational planning effort that will engage leaders from tribal departments, corporate and educational organizations, and tribal youth to establish a Carbon Footprint Baseline and prioritize actions for reducing climate pollution and enhancing climate resilience. CSKT's Third CSKT Climate Change Strategic Plan (scheduled for release in fall of 2023) and the new Tribal Council climate change Resolution (passed in July 2023) provide the foundation for this project. The newly appointed CSKT Climate Coordinator will lead a series of reservation-wide tribal sector workshops to inventory greenhouse gas (GHG) emissions and ecosystem carbon stocks to establish a carbon footprint baseline and prioritize actions for CSKT to shrink its carbon footprint. Shrinking Carbon will also train a new generation of climate leaders through youth climate camps for high school students from Flathead Nation and Blackfeet Tribe, to learn about climate change, GHG emissions, and develop climate actions for their schools. These efforts will advance and support climate resilience on the Flathead Reservation and in surrounding communities.

Tribes:	Confederated Tribes and Bands of the Yakama Nation	Amount Funded:	\$232,169
Title:	<i>Yakama Nation Tract D Water Resources Planning – Developing Assessment & Adaptation Tools</i>		

Project Description: Tract D, a 121,466-acre area of the Yakama Reservation, was contested by Klickitat County before being confirmed as part of the Reservation by a Supreme Court decision in April 2021. The wetland environment was drastically altered during colonization through extensive agricultural ditching and draining, which contrasts with the Yakama tradition of careful stewardship. These actions have resulted in an inequitable distribution of natural and water resources in the area, a decline in ecosystem resilience, and overall degraded conditions across Tract D. The region now faces climate change-related drying and drought, which further exacerbates the situation as glacially fed waters recede. This project aims to build the capacity of the Yakama Nation's natural resources and hydrology staff in Tract D, establish a monitoring network to measure the surface and groundwater conditions, analyze fluxes, and use collected data to enhance water conservation and management decisions and planning for climate adaptation. This project prioritizes Education and Outreach efforts and capacity building for tribal youth, as well as support for facilitating community conversations to address community impacts, identify priorities, and open dialogue to find a path forward. The project will protect and promote Treaty Reserved Rights in a way that increases resilience to a warming climate. As the Yakama Water Code emphasizes, water provides for all life, and humans must provide for water.



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Tribe:	Confederated Tribes of the Umatilla Indian Reservation	Amount Funded:	\$250,000
Title:	<i>CTUIR Energy and Carbon Management</i>		

Project Description: The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) is a federally recognized Indian tribe that is composed of the Cayuse, Umatilla, and Walla Walla Tribes. Currently in the Columbia and Snake River basins, energy "base load" is generated by three sources, all which harm CTUIR's culturally important plant and animal species, First Foods. This project will provide capacity to conduct community engagement and document development to generate an updated Confederated Tribes of the Umatilla Indian Reservation Energy Policy, and an Energy Conservation Plan. Additionally, dedicated capacity to build understanding and consent within Tribal communities for carbon removal strategies is urgently needed due to the sudden influx of proposed projects from private industry. This project will provide CTUIR staff capacity to explore and compile carbon removal approaches into a Carbon Management Inventory.

Tribe:	Coquille Indian Tribe	Amount Funded:	\$250,000
Title:	<i>Development of a Resilience Management Plan for the Coquille Indian Tribe</i>		

Project Description: The Coquille Indian Tribe has unique rights, cultural traditions and economic interests that are vulnerable to climate change impacts. While preventing climate change is an important global issue, the Tribe wishes to focus its' efforts on defining specific challenges and issues facing the Tribe. These issues can be identified through developing strategic climate resilience recommendations, prioritizing these issues and coordinating solutions and integrating them into a Resilience Management Plan for the Tribe.

Tribe:	Coushatta Tribe of Louisiana	Amount Funded:	\$225,000
Title:	<i>Coushatta Climate Adaptation Plan</i>		

Project Description: The Coushatta Tribe of Louisiana will develop a Tribal Climate Resilience Plan. This Plan will chart a road map for reducing the Tribe's social, cultural, economic, and environmental risk through recommendation of strategically prioritized short-, medium-, and long-term risk mitigation actions. The Plan will function as a comprehensive guide for implementation of resilience projects, detailing relevant funding sources, timelines, and Tribal and non-tribal partner authorizations needed to enact projects. While the Tribe has completed a few significant steps toward assessing and planning for climate resilience, the Plan is needed to weave together all existing elements, combine them with new analysis, and provide a single, cohesive strategy and workplan for the Tribe's future.

Tribe:	Cow Creek Band of Umpqua Tribe of Indians	Amount Funded:	\$225,668
Title:	<i>Cow Creek Band of Umpqua Tribe of Indians Cultural and Natural Resilience Plan</i>		

Project Description: The Cow Creek Band of Umpqua Tribe of Indians will undertake a culturally centered and collaborative assessment of the impacts of climate change on cultural and natural resources across four key watersheds. Natural Resources are cultural resources, therefore the two must be assessed together. Utilizing the best available climate projections and customized climate-driven habitat modeling, the Tribe will bring together multiple departments to better understand risk and develop a resilience plan to reduce those risks and protect these critical resources.



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Tribe:	Dry Creek Rancheria Band of Pomo Indians, California	Amount Funded:	\$245,000
Title:	<i>Wildfire Resilience Plan for the Bi'Du Khaale Property</i>		

Project Description: The Dry Creek Rancheria intends to develop a fire resilience plan for the Cloverdale Property that will house tribal members called Bi'Du Khaale Housing Project that is located on 47 acres about 10 miles to the northwest of the Dry Creek Rancheria. The project will integrate Indigenous Knowledge (IK), education and outreach to the community, and tribal members. This project will build on efforts already started by the Tribe for a 20-acre post-fire management pilot project on the Dry Creek Rancheria. The plan will identify fire risks and landscape management actions that will help Dry Creek Rancheria adapt to changes in weather patterns by efficiently managing wildland vegetation, improving wildlife habitat, and adaptively managing these projects. The Bi'Du Khaale Housing Project is located about 10 miles to the northwest of the Dry Creek Rancheria in the community of Cloverdale. Resiliency and adaptation strategies are needed to manage the threat of wildland fire at the Bi'Du Khaale Housing Project.

Tribe:	Eastern Shoshone Tribe of the Wind River Reservation, Wyoming	Amount Funded:	\$250,000
Title:	<i>Implementing A Sustainable Eastern Shoshone Tribal Climate Change All-Hazard Adaptation Plan for a Climate Change Ready and Resilient Community</i>		

Project Description: A Climate Change Adaptation Plan (CCAP) will be critical for the Eastern Shoshone Tribe to aggressively prepare a plan to meet the rapidly changing climate and extreme weather patterns affecting the WRIR. The comprehensive CCAP will be a planning and mitigation document building on actionable disaster resilience and climate change focus group discussion and feedback results collected by the previous FY 2020 Bureau of Indian Affairs Tribal Climate Resilience Workshops award and with the completion of two workshops and continued research with this project. The CCAP project will be developed and written by experienced disaster resilience planners and implemented by local planners from the Eastern Shoshone tribe. This sustainable planning process will continually assess and assist in future CCAP implementation, identified by the most current science, applications, and data. The CCAP will produce a proactive resiliency plan geared towards sustainable long-term public safety, all- hazards and new technology economic improvements to mitigate all hazards.

Tribe:	Hoh Indian Tribe	Amount Funded:	\$250,000
Title:	<i>Hoh Highlands Master Plan Project</i>		

Project Description: The Hoh Indian Tribe is a federally recognized tribe which resides on the Hoh Indian Reservation on the Pacific Coast of Washington State. Due to its location and low elevation, the Reservation and its residents are at extreme high risk of catastrophic weather events, including wind, flooding and tsunamis. To protect the health and safety of its citizens and Reservation residents, the Tribe has implemented the Hoh Highlands Development Project, which aims to move the residents and all tribal facilities to higher ground. As a result of the Hoh Indian Tribe Safe Homelands Act (2011) the Bureau of Indian Affairs placed 471 acres of new land into trust for the Tribe's benefit and safety. The Tribe has developed plans and received some funding for a resilience center and infrastructure funds to develop a parcel of about 8 acres of 45 acres of land and up to fourteen (14) initial houses, which comprises Phase I of the development. The Tribe will implement Hoh Highlands Master Plan Project and create a land use plan for the highlands, develop a master long-range plan for relocation of the Hoh Reservation, for training, and for other purposes. The Tribe will assess tribal citizen needs and plan for the usage of the remaining Hoh Tribal acreage.

Tribe:	Hoonah Indian Association	Amount Funded:	\$201,795
Title:	<i>Youth Climate Education and Stewardship in Hoonah</i>		

Project Description: The Youth Climate Education and Stewardship in Hoonah project will bring in new partners to deliver climate change relevant curriculum and opportunities for Hoonah students and builds upon previous



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partnerships through dual enrollment (college courses in the high school) and workforce development trainings and conferences. The Hoonah Indian Association follows recommended steps for building youths' ability to adapt to climate change and be stakeholders in the process. Hoonah Indian Association has developed a Climate Adaptation Plan to guide the Tribe's environmental programs and is committed to climate-linked environmental work and fostering youth stewards. This award will result in new capacity for Tribal members, help fill crucial gaps in Hoonah's workforce related to climate resilience and increase the ability of the Tribe's youth and citizens to cope with climate change in their community.

Tribe:	Kashia Band of Pomo Indians of the Stewarts Point Rancheria, California	Amount Funded:	\$250,000
Title:	<i>Planning for Climate Resilient Water and Wastewater System Upgrades at the Stewarts Point Rancheria</i>		

Project Description: The Stewarts Point Rancheria is a remote community in Sonoma County, California, about an hour outside of Santa Rosa. The Rancheria is vulnerable to damage from severe thunderstorms, winter storms, fires, flooding, and rockslides. The Tribe believes the impacts of climate change will only worsen these conditions - more wildfires, stronger storms, worse flooding, etc. The Kashia Band of Pomo Indians will plan for Climate Resilient Water and Wastewater System Upgrades at the Stewarts Point Rancheria. The Tribe will hire an engineering firm to conduct a climate vulnerability and resilience assessment of the existing water and wastewater infrastructure to better determine what aspects of the system require updates or modifications. This information will inform future efforts to secure implementation funding and make the recommended changes to ensure the safety and reliability of the water system for generations of Rancheria residents to come.

Tribe:	Kootenai Tribe of Idaho	Amount Funded:	\$205,868
Title:	<i>Identifying Vulnerabilities and Planning for Climate Resilience</i>		

Project Description: This project will help the Tribe to identify areas of vulnerability to climate change and to create a climate adaptation plan in response to growing concerns about the impacts of climate change on tribal members and on their homelands. The Kootenai Tribe has deep ties to the land and reliance on fishing, hunting, and gathering. It is hoped that a better understanding of possible areas of impact can allow for a plan to be created that will integrate traditional, indigenous knowledge and science. The creation of a plan that holds meaning and offers avenues for needed change to be implemented will begin with engaging community members and gathering information. It is vital to include the stories and pieces of indigenous knowledge from tribal citizens and, especially, elders. These efforts will provide a better understanding of how exposure may impact areas identified as important.

Tribe:	La Posta Band of Diegueno Mission Indians of the La Posta Indian Reservation, California	Amount Funded:	\$71,114
Title:	<i>La Posta Noxious and Invasive Species Treatment and Prevention Program Plan</i>		

Project Description: La Posta Band of Mission Indians will develop an investigation and planning program for noxious and invasive species. This program would include a noxious and invasive species survey, and treatment and prevention program plan. The Tribe would use biological services to conduct a survey to identify noxious and invasive species and will use an environmental technical consultant to assist in the development of a treatment and prevention plan.



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Tribe:	Lummi Tribe of the Lummi Reservation	Amount Funded:	\$249,990
Title:	<i>Empirical assessment of Chinook salmon egg-to-fry survival in the Nooksack basin relative to habitat restoration strategies</i>		

Project Description: This study will assess egg-to-fry survival rates for early South Fork Chinook salmon in the Nooksack River and investigate how these survival rates are impacted by the ongoing threat of climate change. Artificial Chinook salmon redds will be constructed and monitored throughout the upper SF basin to assess egg-to-fry survival both in areas with and without habitat restoration efforts. Each site will have three replicate artificial redds and will be monitored throughout the incubation period to examine impacts and variation of temperature, dissolved oxygen, fine sediment intrusion, scour, river discharge, substrate size, and overall condition. These data are critical to inform the Nooksack early Chinook life cycle model, a developing management tool used to inform the impacts of environmental conditions on the abundance and survival of Chinook salmon. A key application of this model is forecasting future scenarios and conditions under various levels of threat due to climate change for the purposes of planning habitat restoration projects and improving hatchery management strategies.

Tribe:	Metlakatla Indian Community, Annette Island Reserve	Amount Funded:	\$155,922
Title:	<i>Climate Change Adaptation Plan Update, Annette Islands Reserve</i>		

Project Description: Metlakatla Indian Community (MIC) applied for and was funded to complete a Climate Change Adaptation Plan in 2014. This plan was completed, approved by Tribal council and BIA in 2018. It has been invaluable as to inform planning and grant applications for a wide array of purposes, however, due to rapidly changing climate conditions, MIC needs to update their current plan to adequately reflect current and anticipated climate fluctuations and impacts. Additionally, the existing plan was written during a time of an unprecedented drought that had not been clearly identified until the completion of the plan. The plan needs to be updated to reflect this drought, and consider future drought impacts as well as address information gaps identified in the Plan. To properly inform the MIC Tribal leadership, protect the natural resources and valuable lifeways of the Tribe, it is essential to update the existing Climate Change Adaptation Plan for MIC.

Tribe:	Nansemond Indian Nation	Amount Funded:	\$249,942
Title:	<i>Nansemond Indian Nation Bridge Road Complex Resilience Planning</i>		

Project Description: The Nansemond Indian Nation will hire subject-matter experts to help devise a plan for emergency operations at their Bridge Road property in Suffolk, Virginia. As a sovereign, federally recognized Tribe located in Coastal Virginia, hurricanes and major weather events are increasing in intensity and frequency, bringing more instances of flooding, power-outage, and evacuation to the area. This plan will help the Nation hire three contractors: an emergency management consultant, an energy consultant, and an architecture and environmental engineering consultant. These firms will help the Tribe create a plan to fortify the Bridge Road property so that it can serve as an emergency operations center and storm shelter. Additional training and an outreach campaign to Tribal citizens will couple with the plan to increase the Nation's resilience in the face of changing climate and worsening weather events.

Tribe:	Native Village of Chenega (aka Chanega)	Amount Funded:	\$100,140
Title:	<i>Empowering Tribal Resilience: Floating Wave Attenuation Breakwater Planning and Design for Climate Change Mitigation and Adaptation.</i>		

Project Description: The Native Village of Chenega places a high priority on climate change resilience, will develop a floating wave attenuation system in its planning and engineering design phase. This innovative approach aims to protect approximately 2,000 feet of shoreline, preserve water quality, and safeguard the village and harbor infrastructure from climate-induced damage. This cost-effective solution provides a protective breakwater against



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rising wind surges and waves, directly linked to climate change. The project's significance lies in protecting the community's small boat harbor, which is essential for subsistence and cultural preservation. Chenega's economic sustainability is closely tied to maintaining access to fisheries resources, making the harbor's functionality vital for both residents and traditional practices. In summary, this initiative is a pivotal step toward ensuring the community's resilience, safeguarding its culture, and supporting economic growth through the protection of vital traditions.

Tribe:	Native Village of Diomed (aka Inalik)	Amount Funded:	\$232,036
Title:	<i>Planning for Resilience – Developing a Climate Adaptation Plan for the Native Village of Diomed</i>		

Project Description: The Native Village of Diomed (NVD) is a small rural community located on Little Diomed Island (Inalik) in western Alaska within the Bering Strait. These changes are taking place at a much greater rate in northern climates and the NVD has identified the need to develop a climate adaptation plan that identifies climate vulnerabilities and adaptation strategies to foster cultural resilience for the Ingalikmiut people of NVD. The climate adaptation plan will be used to guide and prioritize the efforts of the NVD. This will be accomplished through conducting an initial gap analysis, data gathering, and community assessment, conducting a vulnerability assessment and prioritization, and finalizing a Climate Adaptation Plan with adaptation strategies to foster climate resilience.

Tribe:	Nez Perce Tribe	Amount Funded:	\$224,099
Title:	<i>Titoqua Hipt Project: Adaptive Management Data Gathering, Planning, and Education to Protect Traditional Plants in a Changing Climate</i>		

Project Description: In 2021 and 2023, the Nez Perce Tribe started collecting traditional plant utilizing small grants from non-profit partners as pilot projects to trial methodology, start documenting impacts, and find partners and methods that could work for the Tribe. The Tribe will continue and expand upon the traditional plant surveys that have been completed to gather the information required to support adaptive management planning for traditional foods. The Tribe will also continue community-based involvement with this project through workshops and field trips focused on traditional gathering, documentation, and climate planning. Involving the community of Nimiípuu gatherers in this effort increased the relevance, impact, timeliness, and effectiveness of this work. Nimiípuu gatherers have started a grassroots movement to help address climate impacts to traditional foods through educational and community building field-based workshops, trainings, and meetings. In the summer of 2023, a Northwest Indian College Intern led a series of field-based workshops about gathering and preparing traditional plant foods. The Tribe will continue this effort and expand upon it to protect Titoqua Hipt because climate change impacts are occurring so rapidly.

Tribe:	Nooksack Indian Tribe	Amount Funded:	\$204,738
Title:	<i>Enhancement of hydroclimate model certainty and development of a climate resilience plan for forest management in the South Fork Nooksack watershed to increase summer streamflow that supports salmon recovery.</i>		

Project Description: The Nooksack Tribe has directed significant resources to build the frameworks for the DHSVM and VELMA models for the South Fork Nooksack watershed, yet data gaps remain. This award funding will support field monitoring activities to measure soil moisture and sap flux to more accurately estimate evapotranspiration rates across a range of forest types. Field data generated will then be utilized to update the model frameworks and run additional scenarios that explore forest management effects on summer streamflow into the future with climate change projections. The model outputs will ultimately be used to identify and prioritize streamflow restoration actions in the watershed that will ameliorate current water needs that support salmon recovery. As popularity in these models grows through the region, Tribes can take a leading role in shaping their applicability to holistically prepare for climate change and protect treaty resources.



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Tribe:	Northern Arapaho Tribe of the Wind River Reservation, Wyoming	Amount Funded:	\$250,00
Title:	<i>Implementing A Sustainable Northern Arapaho Tribal Climate Change All-Hazard Adaptation Plan for a Climate Change Ready and Resilient Community</i>		

Project Description: A Climate Change Adaptation Plan (CCAP) centered upon wildfire resiliency, drought management, and an improved threat and hazard identification and risk assessment will be completed specifically for the Northern Arapaho tribe. This comprehensive CCAP will be a planning and mitigation document building on actionable disaster resilience and climate change focus group discussion and feedback results collected by the previously funded FY 2020 Bureau of Indian Affairs Tribal Climate Resilience Workshops and with the completion of two workshops and continued research with this project. The CCAP project will be developed and written by experienced disaster resilience planners and implemented by local planners from the Northern Arapaho Tribe. This sustainable planning process will continually assess and assist in future CCAP implementation, identified by the most current science, applications, and data. The Northern Arapaho Homeland Security will develop an updated Drought Plan and a Threat and Hazard Identification and Risk Assessment to mitigate all-hazards and improve climate change resiliency on the WRIR.

Tribe:	Pala Band of Mission Indians	Amount Funded:	\$249,429
Title:	<i>SoCal Tribal Adaptation Planning and Training (STAPT) Project</i>		

Project Description: The Pala Band of Mission Indians (PBMI) SoCal Tribal Adaptation Planning and Training (STAPT) Project will advance climate and health adaptation planning, data development, training and other knowledge sharing and capacity building efforts primarily for Tribal leaders, program coordinators, planners, managers, and their partners at Pala and other Southern California Tribes that recently formed the Tribal Energy & Climate Collaborative (TECC). STAPT will develop and analyze the latest regional climate and health information, including Indigenous Knowledge, for a five-year summary update to PBMI's Climate Change Vulnerability Assessment and Adaptation Plan. STAPT will also develop summary vulnerability data analyses and advanced plans within select adaptation strategies for 11 participating TECC Tribal partners using tools from PBMI's Tribal Climate Health Project (TCHP) as well as State and federal partner agencies. TCHP will continue its long-standing national training and information sharing efforts to ensure that Tribes have better access to meaningful vulnerability data. Building upon seven successful years providing Tribal health and adaptation capacity-building opportunities to more than 1,000 Tribal-serving professionals, PBMI will invite TECC Tribes to participate in regional in-person climate and health adaptation training summits at Pala co-hosted with the National Disaster Preparedness Training Center.

Tribe:	Pascua Yaqui Tribe of Arizona	Amount Funded:	\$250,000
Title:	<i>PYT Climate Adaptation Plan Development</i>		

Project Description: The Pascua Yaqui Tribe will develop a Climate Adaptation Plan. The Plan will contain a risk and vulnerability assessment based on available social vulnerability, environmental justice, and climate data; models of climate impacts; and community engagement. It will include the identification and prioritization of community-based climate adaptation strategies as well as potential avenues for strategy implementation. This Plan will outline the Tribe's next steps in continuing to build capacity to respond to climate change. It will fulfill the Pascua Yaqui Tribe's objective of a comprehensive plan for climate change adaptation that assesses current vulnerabilities, strategies for alleviating them, and a plan for bringing strategies to fruition.



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Tribe:	Pit River Tribe, California	Amount Funded:	\$250,000
Title:	<i>Pit River Tribe Integrated Resources Management Plan (IRMP) and Framework for Advancing Climate Resilience</i>		

Project Description: The Pit River Tribe recognizes the need for a comprehensive Integrated Resources Management Plan (IRMP) that prioritizes economic and community development, cultural and biological resource protection, emergency preparedness, water management, water rights protection and considers nature-based solutions to mitigate projected regional climate-change impacts to the Tribe, its community, and resources. An IRMP that organizes the interrelationships between the social, environmental, and economic components of the Pit River Tribe land base, and incorporates climate-change considerations is vital to the Tribe's efforts to build community resilience and adaptation planning efforts. The Pit River Tribe will engage in vital strategic planning needed to complete the IRMP and framework for advancing climate resilience.

Tribe:	Pokagon Band of Potawatomi Indians, Michigan and Indiana	Amount Funded:	\$176,213
Title:	<i>Developing Climate Resiliency for the Pokagon Band through Greater Capacity</i>		

Project Description: The Pokagon Band of Potawatomi Indians will hire a Climate Resilience Specialist to spearhead the development of climate change plans and the implementation of resilience measures. The Climate Resilience Specialist position will allow the Pokagon Band to enhance its capacity to lower greenhouse gas emissions and prepare for and respond to the effects of climate change.

Tribe:	Prairie Band Potawatomi Nation	Amount Funded:	\$237,285
Title:	<i>PBPN Food Systems Climate Adaptation Plan</i>		

Project Description: The Prairie Band of Potawatomi Nation (PBPN) is currently experiencing increased extreme weather events because of climate change. To respond to the damages of climate change and mitigate future risks, PBPN will develop a comprehensive Food Systems Climate Adaptation Plan.

Tribe:	Pueblo of Santa Ana, New Mexico	Amount Funded:	\$195,870
Title:	<i>Planning and assessing the Water Resources for the Pueblo of Santa Ana's Climate Adaptation Plan</i>		

Project Description: Water resources have served as a way of life for the Tamayame people since time memorial. The unbalance of the hydrologic cycle makes it hard for the Pueblo to predict the future of water access. It is more critical now to protect this valuable resource for the Pueblo with the current and future changes in climate. The impacts of climate change in the Rio Grande and Rio Jemez Basin are projected to increase temperatures by approximately six degrees and reduce flows by twenty-five percent, and due to increased demand of water use by non-pueblo irrigators in this basin, it is critical that the Pueblo prepares for this adaptation. This project will help the Pueblo to better understand and plan for the future. This plan will be implemented in the overall Climate Adaptation Plan.

Tribe:	Quapaw Nation	Amount Funded:	\$106,250
Title:	<i>Quapaw Comprehensive Vegetation Planning Project</i>		

Project Description: The Quapaw Nation of Oklahoma will develop a Native Plant Nursery and Natural Resource Restoration Training Hub. The nursery and training hub will serve to address surface and ground water data gaps that have been barriers to completing a large-scale conceptual design project for the Tar Creek Superfund site, while providing a source for native plants and necessary training to allow other tribes to complete their restoration projects. These restoration efforts will address storm water runoff and its effects on the impaired water quality and sediment in the area that has plagued the Quapaw Nation and other tribes for many decades, as a result of historical lead and



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zinc mining. A previous phase of that project resulted in a data gap analysis funded by the BIA Tribal Resilience Program in 2018. The restoration of natural areas is expected to include abundant wetlands and riparian areas that fall within the Quapaw Nation's reservation boundaries. Restoration with native vegetation will address flood and drought conditions that have worsened from climate change. Establishment of a native plant nursery and natural resource training hub would be a preliminary step toward other more sophisticated land use improvements for the future. The planning will involve a feasibility study and business plan for a scalable and sustainable native nursery and would involve partnerships with three entities that include nursery and permaculture design, native plant education, and wetland design, development and management techniques. The nursery will be the catalyst for a direct, streamlined implementation process for the natural area restoration effort for years to come.

Tribe:	Rappahannock Tribe, Inc.	Amount Funded:	\$221,387
Title:	<i>Rappahannock Tribe: Tribal Climate Resilience Planning</i>		

Project Description: The Rappahannock Tribe seeks to build a climate resilience plan for its property along the Rappahannock River at Fones Cliffs. The river is named after the Tribe, which lived for thousands of years along the banks on both sides. The colonial settlers soon dispossessed the Tribe of its home on the river and forced their removal inland, miles away from the river, which was rich with natural and spiritual resources. By spring of 2024, the Tribe will own 2,132 acres, with conservation easements held by the FWS. The Tribe and the Rappahannock River Valley National Wildlife Refuge will co-manage the land together. Because climate change and commercial development have endangered the river and its lands, the Tribe will purchase equipment, hire and train staff to collect data, understand the state of the property's natural resources, study the effects of climate change on the fish and wildlife, and build a plan that will address the overall health of the river and fish and wildlife habitat.

Tribe:	Red Lake Band of Chippewa Indians, Minnesota	Amount Funded:	\$246,500
Title:	<i>Regional Climate Change Monitoring Program Coordination</i>		

Project Description: This project will fund a portion of a Regional Climate Change Monitoring Coordinator (RMC) position and activities associated with the National Science Foundation funded Global Center. The RMC will work with tribes across the Midwest region to assist with protocols, data analysis, and coordination of monitoring and assessment associated with climate change.

Tribe:	Rosebud Sioux Tribe of the Rosebud Indian Reservation, South Dakota	Amount Funded:	\$202,500
Title:	<i>Planning for Oceti Sakowin Regional Climate Collaboration</i>		

Project Description: This planning project is designed to strategically initiate outreach, engagement, and garner support among tribes from the Oceti Sakowin Nation, (Lakota, Nakota, and Dakota Nations) to determine the need, interest, and viability of a regional approach to climate resilience. The year-long effort would culminate in a climate summit and the creation of a Charter to be signed by all interested and willing tribes. It builds on extensive efforts at both the regional scale related to Treaty rights, language, culture, the Tribe's common history, and climate change. It also builds on funded projects by the Sicangu Lakota Oyate (Rosebud Sioux Tribe) including a climate adaptation plan, a Sicangu Climate Center, traditional ecological knowledge (TEK), as well as many existing data resources, federal, nonprofit, and academic partnerships. The Sicangu Lakota Oyate have already demonstrated a commitment to building local resilience, and the Tribe also seeks to unify the Oceti Sakowin tribes under a spirit of collaboration, unity and diversity, and strength in the collective to prepare for current and future climate events.



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Tribe:	Saint Paul Island (See Pribilof Islands Aleut Communities of St. Paul & St. George Islands)	Amount Funded:	\$249,215
Title:	<i>Strengthening Indigenous Narratives Through Data Dissemination and High Impact Story Telling within the Indigenous Sentinels Network</i>		

Project Description: Indigenous communities possess a rich cultural heritage often overlooked in climate resilience discussions. To bridge this gap, Saint Paul Island's "Strengthening Indigenous Narratives through Data Dissemination and High-Impact Storytelling" project will hire an Indigenous Communication and Storytelling Specialist to empower Indigenous voices and preserve their wisdom during rapid environmental change. The Tribe's initiative aims to develop a climate change communication and storytelling strategy for the Indigenous Sentinels Network (ISN), a technology-based data collection program led by the Tribal Government of St. Paul Island. This project not only addresses the persistent challenge of gathering consistent Arctic climate impact observations, but also aligns with the emerging need for Indigenous self-determination in research and knowledge co-production efforts. The project focuses on creating story maps, enhancing community engagement, improving science communication surrounding climate adaptation efforts, fostering transparency around how data is used to communicate deliverables from community-driven environmental monitoring efforts, and building capacity for Indigenous-led research.

Tribe:	Samish Indian Nation	Amount Funded:	\$250,000
Title:	<i>Samish Indian Nation Managed Retreat, Greenhouse Gas Emissions Reduction and Climate Emergency Management Planning</i>		

Project Description: The Tribe has several properties near the coast including a major business unit in the form of an RV Resort on Fidalgo Bay in Anacortes, Washington. Initial sea level rise analysis indicates that at least a significant section of this park will need to be relocated. A Planning effort to remove electrical, communications and sewer infrastructure is needed and will be conducted under this effort in addition to more fully analyzing all the Tribe's properties to determine if similar efforts are needed. Samish is currently conducting a full greenhouse gas (GHG) emissions report under EPA funding which will be completed in March of 2024. The Tribe will develop projects that will reduce Samish's GHG emissions, preparing the tribe to apply for implementation funds for "shovel ready" projects. Currently, Samish is not able to participate in tribal, local, or regional emergency planning and coordination efforts, which is a critical table for the Tribe to sit at. Most of the emergencies we face can be either directly or indirectly linked to climate change and a portion of this funding will be utilized to meaningfully participate in emergency planning efforts and the much-needed update to the Samish Emergency Management Plan.

Tribe:	Santo Domingo Pueblo	Amount Funded:	\$201,304
Title:	<i>Santo Domingo Pueblo - Strategic Water Management Plan Development</i>		

Project Description: The primary objective of the project is to develop a Strategic Water Management Plan for the Santo Domingo Pueblo. This initial planning project will be used to identify projects that address vulnerability to climate change, the impacts that affect water supply reliability, and identify strategies that support ecological values along the Middle Rio Grande River.

Tribe:	Seminole Tribe of Florida	Amount Funded:	\$249,886
Title:	<i>Seminole Tribe of Florida Climate Change Workshops and Action Plan</i>		

Project Description: The Seminole Tribe of Florida (STOF) will use grant funding for the Tribe's first community-led climate adaptation plan. This will support STOF in creating a roadmap for long-term climate resiliency in the face of extreme weather and environmental trends across the Tribe's seven reservations/trust lands. The Tribe will create a "Sustainable and Climate Resilient Communities" workshop series that brings Tribal citizens and technical staff



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together to share knowledge, collaborate, and co-develop their first Climate Action Plan. The Tribe will also be able to increase their staff's capacity by hiring one part-time Climate Resiliency Training Coordinator, in addition to contracting facilitation and planning support to address climate risk.

Tribe:	Shoalwater Bay Indian Tribe of the Shoalwater Bay Indian Reservation	Amount Funded:	\$248,097
Title:	<i>Shoalwater Bay Preparedness for Relocation Project</i>		

Project Description: This project includes climate adaptation planning through a road assessment to support planning and road design for the Shoalwater Bay Indian Tribe's relocation village; data development through drone technology in the Tribe's efforts to monitor coastal erosion and the berm; youth engagement through STEM classes involving drone technology; and travel to access climate adaptation training and technical workshops to build capacity of the Tribe's staff and tribal leaders.

Tribe:	Squaxin Island Tribe of the Squaxin Island Reservation	Amount Funded:	\$215,192
Title:	<i>The Cost of Rising Seas vs. The Risks of Inaction</i>		

Project Description: The Squaxin Island Tribe will build on previous work titled "Where Fresh Water Meets Salt Water" quantifying changes in streamflow and sea level. The Squaxin Tribe determined the need to take action to reduce inundation and flood risk near marine waters but also near freshwater systems adjacent to marine waters. The purpose of this funding titled, "The Cost of Rising Seas vs. The Risks of Inaction" is to act by reducing the Tribes impact on global sea level rise and empower and educate Tribal leadership to take action against rising seas as well as to model a sustainable future. The action plan will be used to identify and prioritize actions that the Tribe may take to manage impacts on fish and tribal infrastructure, acquisition of property and water rights, riparian shading, zoning ordinances, and infrastructure investments. Finally, the Tribe will have education and outreach workshops with Education Director to incorporate use of the ESRI story map deliverables for youth climate change education.

Tribe:	Stillaguamish Tribe of Indians of Washington	Amount Funded:	\$195,656
Title:	<i>Mountain Goat Monitoring: North Cascades, WA</i>		

Project Description: The Stillaguamish Tribe, in partnership with the Lummi Nation and Tulalip Tribes, will update their Climate Change Adaptation Plan with specific actions to address monitoring and recovery of mountain goats (*Oreamnos americanus*) in the Mount Baker/Snoqualmie National Forests in the North Cascades Range of Washington State. This project will allow for supplementary monitoring to address climate change impacts to an important treaty resource. In order to update and create new adaptation actions, the Tribe will work with partners to understand current mountain goat distributions and habitat use using non-invasive traditional and innovative methods in the Mount Baker and Darrington, WA regions. This monitoring effort will include new survey units to investigate whether goat populations have shifted their ranges in response to a changing climate or other stressors. Innovative monitoring approaches may include camera traps, thermal imaging drones, and citizen science. Following the monitoring activities and population distribution mapping, the Tribe and partners will create specific actions to investigate the causes of decline and incorporate recovery measures into Adaptation Plans. The Tribe and others will use the results of this work to plan future projects and secure funding for further monitoring and recovery efforts in the North Cascades.

Tribe:	Suquamish Indian Tribe of the Port Madison Reservation	Amount Funded:	\$98,015
Title:	<i>Addressing Emergency Management Climate Change Impacts on the Port Madison Reservation</i>		

Project Description: The Suquamish Indian Tribe's project is to develop a plan to help mitigate and respond to the consequences of climate change in the Tribe's community. With the expansion of residents on the reservation and the increasing severity of weather events, the Tribe has experienced significant impacts on the health and safety of their



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people and lands. The Suquamish's project will hire an Emergency Management Planner to focus on adapting the Tribe's emergency capabilities due to climate change, including updating their Hazard Mitigation Plan, Comprehensive Emergency Response Plan, Continuity of Government, and Emergency Operations Center Standard Operating Procedures.

Tribe:	Swinomish Indian Tribal Community	Amount Funded:	\$249,719
Title:	<i>Swinomish Climate Resilience Infrastructure Strategic Plan</i>		

Project Description: The Swinomish Indian Tribal Community's ("Swinomish" or "Tribe") Senate passed the first climate change resolution by a United States Native American tribe in 2007. This landmark proclamation established the Swinomish Climate Change Initiative, which initiated the Tribe's path to begin addressing climate warming-related effects and impacts to the Swinomish Reservation. The goal of this project is to develop a Climate Resilience Infrastructure Strategic Plan that incorporates updated climate science, build capacity among Swinomish staff, increase the resilience of Swinomish infrastructure, and identifies the highest adaptation action priorities for the Tribe's most valued infrastructure. The Swinomish Senate and community will be readily engaged to evaluate the staff's actions resulting in a comprehensive strategic infrastructure resilience plan that builds preparedness for climate change impacts to tribal infrastructure on the Swinomish Reservation.

Tribe:	The Chickasaw Nation	Amount Funded:	\$250,000
Title:	<i>The Chickasaw Nation Tribal Property Climate Vulnerability Assessments Project</i>		

Project Description: The Chickasaw Nation (CN) will prepare climate change vulnerability assessments that will advance the CN's adaptation planning and resilience. These vulnerability assessments will address climate change-related exposure across the CN's 13-county treaty territorial boundaries, including sensitivity, adaptive capacity and vulnerability for facilities and infrastructure. This project aims to develop and conduct vulnerability assessments that will advance The CN's capacity for both adaptation planning and climate resilience by focusing on climate change-related exposure within five CN-owned properties. Information from these vulnerability assessments will immediately be incorporated into existing programs and operations within the CN, as well as used to develop new means of adaptation planning.

Tribe:	The Choctaw Nation of Oklahoma	Amount Funded:	\$250,000
Title:	<i>The Choctaw Nation of Oklahoma Water Infrastructure Vulnerability and Resilience Planning</i>		

Project Description: The Choctaw Nation of Oklahoma will conduct Water Infrastructure Vulnerability and Resilience Planning (CNO). The CNO will provide consultants to various water districts and communities in the reservation for the purpose of conducting water rate studies, and to perform utility rate & funding analysis, infrastructure vulnerability reviews, and other reviews as deemed needed. The districts will be chosen by the CNO Office of Water Resource Management team and will be spread over the entire CNO reservation. These studies and analysis will benefit thousands of Tribal and community members for decades to come through the resiliency planning that they will produce.

Tribe:	Tulalip Tribes of Washington	Amount Funded:	\$145,428
Title:	<i>Monitoring Changing Ocean Conditions and Effects on Critical Species, Building Sovereign Management, Planning, Training and Partnerships</i>		

Project Description: The Tulalip Tribes will utilize FY2023 BIA Tribal Climate Resilience funding to conduct and administer Puget Sound-wide purse seine sampling for juvenile salmon, herring and zooplankton. The Tribe will analyze samples from all species of salmon and herring, further training in several laboratory and data analysis techniques



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afforded to all Tribes and continue building wide support to institutionalize and secure other funding (not BIA) for a Puget Sound Juvenile Salmon and Herring Monitoring Program. This is not simply the same annual monitoring, it is a unique pilot project involving new, changing research that is evolving from previous year's efforts.

Tribe:	Upper Mattaponi Tribe	Amount Funded:	\$250,000
Title:	<i>Upper Mattaponi Indian Tribe's Climate Adaptation Plan</i>		

Project Description: The goal of the project is to build upon the Upper Mattaponi Tribe's Climate Vulnerability Assessment by developing a holistic Climate Adaptation Plan. The Tribe will work with technical climate experts and the tribal community to weave climate science and traditional knowledge into appropriate adaptation actions. The plan will provide direction on priority resilience actions, data gaps to be filled, emissions, capacity-building, and future implementation. The results will increase the Tribe's resilience through an impactful climate response that will benefit the Tribe and region for generations to come.

Tribe:	Wrangell Cooperative Association	Amount Funded:	\$222,952
Title:	<i>Earth Branch Climate Action and Adaptation Plan</i>		

Project Description: The Wrangell Cooperative Association (WCA) will develop a comprehensible Climate Action and Adaptation Plan (the Plan) in response to the growing concerns and risks of climate change. The WCA recently conducted a climate impact survey with members of the Tribe to determine the concerns and priorities of the members. The WCA will utilize the survey results to develop the Plan to address the concerns of the Tribe and to protect important traditional species and resources. The Plan is expected to aid the WCA in adapting and mitigating the harms climate impacts may cause to the local environment and Tribal members, with information being shared amongst Tribal organizations and programs to best meet the goals and priorities of the Tribe. The WCA, acting through their Environmental Department, Tl'átk̓ | Earth Branch (Earth Branch Team), will collaborate with stakeholders and a contractor to complete the Plan.

Tribe:	Yakutat Tlingit Tribe	Amount Funded:	\$189,219
Title:	<i>Developing a Climate Adaptation Plan through Integrating Traditional Ecological Knowledge and Environmental Assessments in Yakutat, Alaska</i>		

Project Description: The Yakutat Tlingit Tribe (YTT) has a vested interest in protecting traditional and subsistence natural resources and the health of tribal citizens in their traditional tribal territory. YTT is one of the original members of the Southeast Alaska Tribal Ocean Research (SEATOR) network, a consortium of tribal governments committed to ensuring that Southeast Alaska community members have access to safe traditional foods and has passed resolutions to support ongoing research and monitoring programs that help assess the vulnerability of climate change impacts on significant resources and the community. Salmon, shellfish, halibut, berries, deer, and cultural sites need to be protected and monitored as climate change impacts increase. Central Council Tlingit and Haida Indian Tribes of Alaska has developed a Climate Adaptation Plan template that outlines the common subsistence resources and potential climate change impacts. YTT will utilize the template to integrate community Traditional Ecological Knowledge (TEK) input and current environmental monitoring data to determine the adaptive capacity and vulnerability of key subsistence resources and develop strategies that ensure sustainable access to resources. YTT will then use vulnerability rankings to develop mitigation and adaptation strategies critical to building resiliency.



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Tribal Organization:	Affiliated Tribes of Northwest Indians (ATNI)	Amount Funded:	\$249,897
Title:	<i>Climate Workforce Development Fellowship Program</i>		

Project Description: This Affiliated Tribes of Northwest Indians (ATNI) workforce development program project is focused on Tribal climate resilience. The project will hire and train early-career tribal citizens as climate fellows to support ATNI's Climate Resilience Program. ATNI will also develop a Tribal Climate Resilience board game and curriculum to have a broader impact across Indian Country.

Tribal Organization:	Ahtna Intertribal Resource Commission	Amount Funded:	\$248,013
Title:	<i>Restoring Nature's Pathways – A Collaborative Mission in the Ahtna Territory</i>		

Project Description: The Ahtna Intertribal Resource Commission (AITRC), on behalf of the eight Ahtna Tribes and two ANCSA corporations, will introduce the first habitat restoration biologist position within the Ahtna Territory of southcentral Alaska. This position will concentrate on improving waterways and designing wildlife corridors, with other areas of focus to be determined by further consultation with the Ahtna tribes. Upon identifying cultural and traditional areas of concern impacted by the changing climate, the habitat restoration biologist will prioritize necessary trainings and pursue applicable funding sources to implement restoration efforts. These initiatives will blend Indigenous Knowledge with western science to protect the Ahtna Territory's natural resources and rich cultural heritage.

Tribal Organization:	Bristol Bay Native Association	Amount Funded:	\$106,501
Title:	<i>New Stuyahok Road and Drainage Improvements Planning Project</i>		

Project Description: New Stuyahok is an Alaska Native village located in the Bristol Bay Region of Alaska's west coast. The community is situated on a hill that experiences severe rainfall during heavy storms and significant snowmelt runoff each spring. Existing roadway drainage systems within the project area are inadequately designed to convey the volume of runoff, which causes frequent flooding of roads and surrounding properties. Severe potholes and rutting, road washouts, and embankment erosion are a continuous maintenance issue for the community as well as a transportation safety concern. The project involves a hydrology analysis and preliminary engineering activities to identify how to improve the climate resiliency of the local road system. Bristol Bay Native Association, on behalf of the New Stuyahok Traditional Council, will hire an engineering consultant to develop a Design Study Report that will evaluate options to improve the drainage and road conditions. The report will provide a 15% preliminary design and will identify next steps for completing full design and construction of the recommended improvements.

Tribal Organization:	Chugach Regional Resources Commission	Amount Funded:	\$208,086
Title:	<i>Chugach Imaq - long-term evaluation of the effects of climate change on Indigenous marine mammals in the Chugach region</i>		

Project Description: This unique pilot project on marine mammals will advance Chugach Tribal resilience and adaptation called the 'Chugach Imaq' program. This project will support the capacity development for the organization to plan and implement marine mammal aerial surveys to discern population dynamics while simultaneously collecting Indigenous Knowledge on perceived threats to these populations in the face of a changing climate in the Chugach region of Southcentral Alaska.

Tribal Organization:	Eight Northern Indian Pueblos Council	Amount Funded:	\$228,000
Title:	<i>Phase II - Southwest Tribal Climate Adaptation Menu (SWTCAM)</i>		

Project Description: The Eight Northern Indian Pueblos Council, in coordination with the New Mexico Tribal Resilience Action Network, will conduct a 2-year project with the Bureau of Indian Affairs (BIA) fiscal year 2024 Tribal Climate

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Resilience funding for the design, development, and deployment of the Southwest Tribal Climate Adaptation Menu (SWTCAM), which will serve as a framework tool to facilitate the climate adaptation planning process for Tribes across the Southwest. The SWTCAM will incorporate relevant case studies and existing resources that are appropriate and valid for Southwest Tribes, reflect Southwest ecology, and address Tribes' regional climate concerns. The SWTCAM will focus on adaptation actions for natural and cultural resources and will incorporate other sectors as determined by the SWTCAM planning committee.

Tribal Organization:	Kawerak Inc	Amount Funded:	\$249,147
Title:	<i>Bering Strait Climate Adaptation Planning Project: Accelerating Regional Adaptation and Resilience</i>		

Project Description: The twenty federally recognized Tribes of the Bering Strait region of Northwest Alaska are already experiencing the negative effects of climate change. The development of climate mitigation and resiliency plans for Kawerak, Inc.'s twenty regional Tribes will be substantially accelerated with the addition of a Climate Change Specialist. This position will increase the capacity for comprehensive adaptation and mitigation planning activities for the 20 Tribes and 15 communities served by Kawerak. Community plans will incorporate mitigation efforts and plans across agencies working in communities and identify additional priorities for action and mitigation for each Tribe. The Climate Change Specialist will work closely with Tribes to facilitate the integration of Traditional Knowledge and current scientific insights through workshops and meetings into holistic adaptation and mitigation plans that will enable Tribes to advance to the next step in implementing adaptation and mitigation activities to increase Tribes' preparedness and collective resiliency in the face of the negative impacts of climate change.

Tribal Organization:	Northwest Indian Fisheries Commission	Amount Funded:	\$250,000
Title:	<i>Northwest Indian Fisheries Commission Tribal Fish Hatcheries Climate Resilience Planning</i>		

Project Description: The Northwest Indian Fisheries Commission will collaborate with the 20 treaty tribes in western Washington and non-tribal partners to evaluate the effects of climate change on tribal fish hatcheries and to identify adaptation strategies. Decreasing Pacific salmon and steelhead populations leave tribes increasingly reliant on hatcheries for the ability to exercise their treaty fishing rights. Better understanding of the challenges facing tribal fish hatcheries will inform decisions around investments that will make hatcheries more resilient to climate impacts, thus helping to ensure that treaty-protected fish runs persist into the future for generations to come.

Tribal Organization:	Point No Point Treaty Council (PNPTC)	Amount Funded:	\$221,366
Title:	<i>PNPTC's Development of a Tribal Near-Term 10-Day Flood Forecasting Tool and Enhanced Climate Program Capacity</i>		

Project Description: The Jamestown S'Klallam and Port Gamble S'Klallam Tribes, along with many other tribes and local communities in the Pacific Northwest, rely on fisheries and shell fisheries for economic, subsistence, and cultural means. The Point No Point Treaty Council (PNPTC) is proposing a pilot study to create and evaluate a near-term streamflow forecasting tool in three mountainous watersheds to provide climate streamflow forecasts for Tribal members and the public. This tool will allow for a better understanding of flood risk, improved preparation time in cases of likely flooding, and can even help Tribal resources managers and fishers have a better understanding of low flow conditions during critical fish migration times. In addition, PNPTC hopes to update and amalgamate additional existing and ongoing in-house coastal and watershed modeling efforts to get a more holistic picture of climate change related vulnerabilities in the traditional S'Klallam lands. In this way, natural resources planners, managers and Tribal communities as a whole, can better adapt to the increased risks posed by a changing climate.



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Tribal Organization:	Upper Snake River Tribes Foundation, Inc.	Amount Funded:	\$193,095
Title:	<i>Planning for Sustainable Riparian Climate Resiliency in the Snake River Basin</i>		

Project Description: The Snake River is the lifeblood of the Upper Snake River Tribes Foundation, Inc.'s (USRT) member tribes; the Burns Paiute Tribe, Fort McDermitt Paiute Shoshone Tribes, Shoshone-Paiute Tribes, and Shoshone-Bannock Tribes. The USRT will develop programmatic guidance for their member tribes on promoting climate resiliency in riparian habitats on the member tribes' respective reservations; it is anticipated that this programmatic guidance will also have regional benefits for any Tribe seeking to implement projects to improve stream function and/or resiliency. USRT staff will work directly with a qualified contractor and the member tribes to develop an addendum, restoration adaptation documents that are consistent with the priorities established in the existing Climate Vulnerability Assessment funded by the BIA and completed in 2017. The protection and restoration of impacted riparian habitat was a common theme for each of USRT's member tribes, and this funding will ensure that tribal staff will have the tools they need to engage in implementation restoration actions that benefit their communities and the region at large.



Category 2: Implementation

Category 2, Implementation awards are designed to support application of on-the-ground, shovel-ready activities that already have a completed plan in place and are identified in official Tribal planning document(s). Implementation proposals can emphasize co-stewardship opportunities, sacred site access and/or protection, as well as treaty rights protection efforts.

Number of Awards: 30

Amount Funded: \$73,590,743

Tribe:	Bad River Band of the Lake Superior Tribe of Chippewa Indians of the Bad River Reservation, Wisconsin	Amount Funded:	\$3,489,545
Title:	<i>Mashkiiziibii NRD (MNRD) Sustainable Roofing Project</i>		

Project Description: The Bad River Band of Lake Superior Tribe of Chippewa Indians will install metal roofs on fifty-six homes and one community center in the Birch Hill community of the Bad River Reservation. Climate change increases the risk of wildfire and heavier snowfall and increases the need for energy efficient homes and renewable energy. Metal roofs handle heavy snow loads, prevent snow accumulation, are fireproof, last longer than asphalt roofs, are energy efficient, and can support solar arrays. Replacing asphalt roofing with metal in the Birch Hill community supports the Bad River Band's climate adaptation implementation and climate resilience goals.

Tribe:	Blue Lake Rancheria, California	Amount Funded:	\$3,929,510
Title:	<i>Toma Resilience Campus, Construction Phase 2</i>		

Project Description: The Blue Lake Rancheria will conduct Phase 2 of the Toma Resilience Campus (Toma), a climate-resilience focused economic and workforce development. The Toma is designed to help BLR tribal members and regional stakeholders prepare for and be more resilient to disasters and climate change impacts on tribal land through development tribal and regional economies, around climate resilience. The focus areas of the Toma include disaster preparedness, clean and renewable energy, regenerative agriculture and food sovereignty, light manufacturing, smart technology, infrastructure, and human health and safety. The Toma supports tribal climate resilience with programming that incorporates science, indigenous knowledge and languages, and technical information. The Toma campus provides training and conference facilities, a business incubator, a makerspace/fabrication lab, classrooms, a commercial kitchen and cafe, and a retail store for emergency supplies. The facility will serve many functions in times of emergency (evacuation assembly point, operations center, clean air facility) and will provide a wide array of resilience programming in business-as-usual (BAU) times. The Toma's primary resilience strategy is climate resilience and whole community disaster preparedness achieved through greater self-reliance, innovation, entrepreneurship, increased knowledge, and regional collaboration and coordination.

Tribe:	Burns Paiute Tribe	Amount Funded:	\$3,311,000
Title:	<i>New Climate-Resilient Natural Resources Management Headquarters at the Burns Paiute Tribe's Malheur River Wildlife Mitigation Site</i>		

Project Description: In June 2023, most of the Tribal facilities at Jonesboro were destroyed in a catastrophic flash flood and debris-slide. The Tribe expects greater frequency and severity of storms in the area in future years due to the impacts of climate change, leading to greater risk of flooding and rockslides at the Tribe's facility location. As a result, the Burns Paiute Tribe's plans for recovery and restoration of their capacity at Jonesboro consider the need to relocate and rebuild a facility in a location and manner designed to withstand the expected worsening conditions in the future, and to ensure continued capacity to respond to fire, flood, and other disasters. This BIA Tribal Climate Resilience



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implementation project will fund the currently shovel-ready construction of a new, climate-resilient Burns Paiute Tribe MRWMS Resource Management Headquarters facility.

Tribe:	Chignik Bay Tribal Council	Amount Funded:	\$249,638
Title:	<i>East Side Electric Distribution System Upgrades Preliminary Engineering Report</i>		

Project Description: Chignik, Alaska is located on the pacific side of the Alaska Peninsula in Anchorage Bay. The community experiences high winds and severe cyclone storm events that impact community infrastructure. The east side electrical distribution system is in poor condition due to its old age combined with frequent high winds, precipitation, and erosion that has caused damage to existing poles and electrical components. The power generation system and bulk fuel facilities also have deficiencies related to environmental factors which need to be addressed. This project involves development of a Preliminary Engineering Report to recommend upgrades to the east side electrical distribution system, power generation system, bulk fuel system, and utility equipment. The project was identified as top priority in the Chignik Bay Tribal Council Climate Resiliency Action Plan, dated May 2023. The project will provide planning to improve the community's resilience to climate-related disasters.

Tribe:	Chitimacha Tribe of Louisiana	Amount Funded:	\$1,472,493
Title:	<i>CTL - Implement Outstanding HMP projects</i>		

Project Description: The Chitimacha Tribe of Louisiana, a federally recognized coastal tribe aboriginal to South Louisiana, has for many years been included peripherally and by addendum in the St. Mary Parish (County) Hazard Mitigation Plans submitted to and approved by FEMA. The Chitimacha Tribe of Louisiana will establish an Emergency Operations Center and implement wind hardening, redundant power, and other outstanding projects listed in the 2020 St. Mary Parish Hazard Mitigation Plan. Funding will support purchasing heavy equipment to address drainage issues, establishing an Emergency Operation Command Center/Public Saferoom, implementing hardening/wind retrofitting tribal/tribally owned buildings, purchasing generators to provide redundant power to critical tribal facilities, and ensuring that tribal members have access to potable water in event of emergency.

Tribe:	Eastern Shoshone Tribe of the Wind River Reservation, Wyoming	Amount Funded:	\$3,979,120
Title:	<i>Implementing the Sustainable Eastern Shoshone Tribal Climate Change Resilience Project for Climate and All-Hazards Ready and Resilient Community</i>		

Project Description: The Eastern Shoshone tribe on the remote and vulnerable Wind River Reservation (WRIR) has experienced increasingly frequent extreme weather since 2010, with 17 different identified all-hazard events occurring, including floods and droughts. Five implementation projects have been identified from Climate Adaptation Strategies developed from the 2020 Bureau of Indian Affairs (BIA) Tribal Climate Resilience Workshops funding. The project's technical objective will involve being Climate Change Ready and improve resiliency by utilizing Tribal Climate Adaptation Planning, the WRIR BIA wildfire management plan, and updating the WRIR drought contingency and state and Regional Hazard Mitigation plans. Eastern Shoshone Homeland Security and planners will lead five all-hazards resiliency implementation projects centered upon mitigating the extreme weather and all-hazard issues resulting from increasing Climate Change affecting the WRIR.

Tribe:	Hoh Indian Tribe	Amount Funded:	\$4,000,000
Title:	<i>Hoh Highlands Development Project Phase I. Housing</i>		

Project Description: The Hoh Indian Tribe is a federally recognized tribe which resides on the Hoh Indian Reservation on the Pacific Coast of Washington State. Due to its location and low elevation, the Reservation and its residents are at extreme high risk of catastrophic weather events, including wind, flooding and tsunamis. To protect the health and



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safety of its citizens and Reservation residents, the Tribe has implemented the Hoh Highlands Development Project, which aims to move the residents and all tribal facilities to higher ground. Through the Hoh Indian Tribe Safe Homelands Act (2011) the Bureau of Indian Affairs placed 471 acres of new land into trust for the Tribe's benefit and safety. The Tribe has received grants and earmarks for a resilience center and infrastructure funds to develop 45 acres of land and fourteen houses, which comprises Phase I of the development. The Hoh Indian Tribe will conduct Relocation, Managed Retreat, and Protect-in-Place Implementation activities, specifically, the Tribe plans to construct at least nine houses at the identified highlands and will focus on other associated expenses and contingencies related to construction for this project.

Tribe:	Jamestown S'Klallam Tribe	Amount Funded:	\$3,999,027
Title:	<i>Jamestown Relocation of Tribal Trust Assets</i>		

Project Description: The Jamestown S'Klallam Tribe is earnestly retreating from the marine shoreline. The Tribe has identified (2013) the need to relocate the Natural Resources Lab and associated office space to higher safer location. Building a new government lab/office on existing Tribal property will ensure safe working conditions for staff, protection of treaty resources, and climate increased climate resilience. The project design is complete, permit packages complete, internal environmental review underway, and some site preparation aspects (utilities and clearing are completed as part of a previous project. The remaining key project tasks for this project are: to complete site prep, construction of the new facility, to relocate staff & equipment, demolition of existing facility, and to decommission existing wells and septic system, revegetation of shoreline and any disturbed areas.

Tribe:	Kashia Band of Pomo Indians of the Stewarts Point Rancheria, California	Amount Funded:	\$3,265,075
Title:	<i>Islanding Microgrid to Provide Uninterrupted Power for the Stewarts Point Rancheria As Climate Change Worsens Already Unreliable Grid Power</i>		

Project Description: The Stewarts Point Rancheria is in a remote location in Sonoma County, California, located at the end of a single-phase PG&E line. The community experiences frequent power outages (average 250-300 hours per year) from a combination of planned PSPS events and unplanned damage to the grid infrastructure in the region from storms, fires, equipment failure, or other occurrences. The Tribe believes the impacts of climate change will only worsen these conditions -- more wildfires, stronger storms, worse flooding, etc. The current outages are often lengthy, covering several days or more at a time. These outages endanger the Tribe's water system and broadband access, impact residents' food storage and communication devices, and prevent adequate lighting, heating, and cooling of their homes. It also renders the Tribe's community center unusable for similar reasons. A detailed conceptual design for the microgrid has already been completed, and the Tribe is already working with PG&E to develop the required grid-side elements of the system. The Climate Resilience award will allow the Tribe to begin work on the Tribal-side elements of the microgrid, speeding implementation of this critical climate resilience solution.

Tribe:	Ketchikan Indian Community	Amount Funded:	\$3,944,640
Title:	Climate Resilient Drinking Water Infrastructure to Support New Affordable Housing Development for the Ketchikan Indian Community		

Project Description: The Ketchikan Indian Community (KIC), located on the Revillagigedo Island in Southeast Alaska, is experiencing an acute housing crisis, with hundreds of new units needed to address the housing needs of Tribal members in the region. New affordable housing development is planned but must take into account the future impacts of climate change, including increased risk of flooding in lower elevations, particularly when considering the dual threats of sea level rise and increasingly severe storms and extreme precipitation events. As a result, the Tribe's new housing (as well as other new housing development in Ketchikan) is planned for higher elevations further inland from



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the shore. However, the Tribe's planned development is not currently served by a viable drinking water source with sufficient pressure to serve the units as well as firefighting needs. In order to proceed with construction of the planned new homes, the Tribe must first construct a high-elevation 750,000-gallon water reservoir and the associated water distribution line infrastructure to provide water and public safety service to the Tribe's already permitted buildable lots. The Tribe will invest in critical climate-resilient water system infrastructure, further enabling the immediate construction of desperately needed climate-resilient affordable housing for Tribal members.

Tribe:	Keweenaw Bay Indian Community, Michigan	Amount Funded:	\$2,124,106
Title:	<i>KBIC Sustainable Fishery Restoration Adaptation for Tribal Climate Resiliency</i>		

Project Description: KBIC is facing challenges to maintaining their traditional fishery that include climate change, habitat loss and/or degradation, and aquatic invasive species (AIS) introductions and expansions. To meet these challenges to keep native fish species important to the Tribe's cultural identity and way of life, KBIC will expand current fishery facilities to increase capacity for fishery restoration. A new energy efficient, bio-secure building will be constructed to house wild trout gametes, serving as a stepwise quarantine facility to further enhance protection and resiliency of brood stock aquaculture and management programs. The facility will include space for fish transport and stocking equipment, increasing ability to secure and utilize innovative techniques in stocking, as well as provide critically needed space for proper disinfecting and storage. An on-site fishery assessment storage space, lab and offices will provide areas for essential research capacity and equipment, sample and data processing/analyses, archiving, and dissemination of evaluative elements of hatchery program successes, and/or adjustment/expansion needs and priorities. Investments from these programs are crucial for safeguarding tribal well-being and ensuring sustainable adaptation to climate change.

Tribe:	Knik Tribe	Amount Funded:	\$2,870,666
Title:	<i>Strengthening Knik Tribe's Co-Stewardship of Aquatic Wildlife Resources in Cook Inlet, Alaska: Gathering Knowledge to Ensure Long-Term Food Sovereignty by Learning from the Past, Taking Stock of the Present, and Planning for the Future</i>		

Project Description: Through this project, the Knik Tribe will document Indigenous Knowledge (IK), collate other existing information, and collect new data on the anadromous fishes and beluga whales of Cook Inlet, Alaska. The Knik Tribe and other Dena'ina people have depended on these aquatic species for millennia as food and cultural resources, but their populations have declined under climate change and other human impacts, along with the Knik Tribe's use of them. This project is designed to increase knowledge about the past, present, and future status of these resources and their interconnection with one another, the climate, and with the Dena'ina people. By completing this work, The Tribe is contributing to a broader, culturally inclusive understanding of these resources and improved management and conservation efforts, thus positioning the Tribe as a leader in co-stewardship efforts and ensuring the Tribe's long-term food and cultural sovereignty.

Tribe:	La Jolla Band of Luiseno Indians, California	Amount Funded:	\$3,138,343
Title:	<i>La Jolla Band of Luiseno Indians Climate Resilience Project</i>		

Project Description: The La Jolla Band of Luiseno Indians project will provide infrastructure to manage climate change impacts on Trust lands, forest and wildlife ecology, economies, cultural and natural resources using indigenous knowledge with research, education, ecotourism, and outreach. A cultural complex will be developed including a trail of indigenous plants, Oak restoration, food sovereignty and facility to showcase climate change resilience efforts for all Tribal Members and 300,000 annual visitors.



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Tribes:	La Posta Band of Diegueno Mission Indians of the La Posta Indian Reservation, California	Amount Funded:	\$349,750
Title:	<i>La Posta Wildfire Treatment and Prevention Program</i>		

Project Description: La Posta Band of Mission Indians will conduct an implementation program for wildfire fuels reduction treatment and prevention utilizing traditional cultural practices for fuels reduction. The program would include training and establishment of a Wildfire Treatment and Prevention Program. Following training and establishment of this program, fuels reduction treatment would occur on an estimated three priority locations.

Tribes:	Makah Indian Tribe of the Makah Indian Reservation	Amount Funded:	\$3,999,562
Title:	<i>Makah Critical Infrastructure & Community Health Resilience Project</i>		

Project Description: The Makah Tribe of the Makah Reservation is in the process of integrating climate adaptation measures across its operations to prevent threats to the health and safety of Makah lands and community. This includes addressing the Tribe's vulnerability to ageing infrastructure, and natural hazards magnified by coastal climate change. The Makah Critical Infrastructure and Community Health Resilience Project will mitigate health and safety impacts to the Makah community, habitat, fish, and wildlife, and allow for the construction of climate-resilient infrastructure to withstand climate-induced impacts, such as extreme weather, flooding, sea-level rise, and storm surge. The Project will also reduce the risk of transmission of sickness and disease that result from exposure to contaminated wastewater.

Tribes:	Manzanita Band of Diegueno Mission Indians of the Manzanita Reservation, California	Amount Funded:	\$414,278
Title:	<i>Revitalizing Our Food Systems: The Manzanita Traditional Plants Project—supporting and building community food security and food sovereignty</i>		

Project Description: Improving knowledge, maintaining resources, and developing a diverse array of alternative food resources is a critical component of the Kumeyaay culture, religion, and way of life. The "Revitalizing Our Food Systems" project, through the propagation and growth of the Manzanita Band of Diegueno Mission Indians' traditional plants will enhance community wellness and strengthen the Tribe's sense of community, thereby supporting and building community food security and food sovereignty. The Tribe has a plan to restore and upgrade the old Manzanita Community greenhouse and install additional propagation houses, which will be a community center for learning and relationship building for the Manzanita Tribal Community. Manzanita Tribal Environmental staff and community members will work together to learn how to care and establish the center as a place for learning and gathering. Tribal community members will build capacity and revitalize knowledge around five traditional Native plants which are derived from Manzanita's culturally significant plant list and are to be chosen for this project. Active management, planting, and restoration of oak environments for acorns and other resources reflects the importance of these resources as a central part of the Kumeyaay culture.

Tribes:	Match-e-be-nash-she-wish Band of Pottawatomi Indians of Michigan	Amount Funded:	\$4,000,000
Title:	<i>The Gun Lake Tribe Electric Infrastructure Implementation Project</i>		

Project Description: The Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians, DBA the Gun Lake Tribe, is a federally recognized tribe headquartered in Shelbyville, Michigan. The Tribe established the climate change adaptation steps of "Improve governmental car fleet through the purchase of fuel efficient, hybrid, and low emission vehicles" and "Increase the energy efficiency of Tribally owned buildings/industries and residences of Tribal Citizens" in 2015. The Gun Lake Tribe Electric Infrastructure Implementation Project will allow the Gun Lake Tribal Government to improve and increase vehicle fleets of the Tribal Government and Tribal Enterprises through purchasing various electric vehicles



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as well as install solar infrastructure on the Tribal Government's campus. The completion of this project will be a major step forward in reducing the Tribe's overall carbon footprint.

Tribe:	Metlakatla Indian Community, Annette Island Reserve	Amount Funded:	\$1,017,230
Title:	<i>Metlakatla Indian Community Tribal Climate Resilience Implementation 2023</i>		

Project Description: The Metlakatla Indian Community (MIC) is one of the only Federally recognized Indian reserves in the State of Alaska, located on the Annette Island Reserve (AIR). Through the MIC Climate Change Adaptation Plan (2017-2027) it was identified that an increasing prevalence of invasive species within the AIR and shifts in subsistence practices including shellfish harvesting were community priorities to be addressed through adaptive strategies. The overall goal of this initiative is to ensure the resilience of the MIC in the face of a changing climate. This will be accomplished through expanding MIC's Environmental Lab capacity to implement environmental DNA and biotoxin sample collection and analysis, implementing a strategic invasive species monitoring program that enables MIC to identify susceptible habitats, respond to new invasions, and mitigate impacts from invasive species within the AIR, and implementing a strategic water quality monitoring program that enables MIC to monitor biotoxins within its waters that could pose a threat to human health, subsistence resources, and cultural practices.

Tribe:	Native Village of Kongiganak	Amount Funded:	\$200,000
Title:	<i>Kongiganak Erosion Mitigation Preliminary Engineering project</i>		

Project Description: A Riverine Erosion Risk Assessment (Assessment), dated July 2023, was developed for the Native Village of Kongiganak (Tribe) to identify erosion-threatened infrastructure in the community of Kongiganak, Alaska. One outcome of the Assessment is to develop three priority projects based on community input. The goals of the project are to: evaluate and compare potential alternatives to mitigate erosion, identify a preferred mitigation measure with construction costs, provide a preliminary design for the recommended project, identify next steps including design, permitting, and construction requirements, and ensure the mitigation strategy will protect existing infrastructure while accommodating the community's barge and boat access needs.

Tribe:	Native Village of Kwinhagak (aka Quinhagak)	Amount Funded:	\$4,000,000
Title:	<i>Community Resilience to Permafrost Degradation Threats Project</i>		

Project Description: This project builds on years of visioning, planning, and assessments to implement the desired solutions of community leaders. The Native Village of Kwinhagak will assess homes threatened by permafrost degradation, assess options to sustain barge landing access, design a new multi-purpose facility to replace the damaged and failing building, replace the foundation on the damaged Head Start preschool building, and plan and design a new managed retreat subdivision site for safe housing. This project addresses urgent threats and benefits the entire community.

Tribe:	Native Village of Nelson Lagoon	Amount Funded:	\$4,000,000
Title:	<i>Native Village of Nelson Lagoon Shoreline Protection and Water Security</i>		

Project Description: Nelson Lagoon is located on a narrow sand spit that is washing away into the ocean due to lack of protective sea ice and increasingly severe storms. Homes, community buildings, and the water line to the Native Village of Nelson Lagoon's only water source are threatened. This project addresses immediate needs by finalizing the construction of an erosion protection structure and constructing two 300,000-gallon water storage tanks.



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Tribe:	Oglala Sioux Tribe	Amount Funded:	\$375,210
Title:	<i>Implementation of a Non-Potable Water Supply to Prepare and Mitigate for Periods of Drought</i>		

Project Description: The Oglala Sioux Tribe (OST) Water Resources Department maintains a map and inventory of deactivated wells and pumphouses within the Pine Ridge Reservation (Reservation). This project is the implementation of three mitigation strategies provided in the OST Drought Adaptation Plan (DAP). Mitigation strategies from the DAP include protection of groundwater recharge for aquifers, identification of water sources for fire suppression, and livestock management for wells that have suitable water quality for livestock consumption. The purpose of this project is to reactivate existing wells and pumphouses and regulate the use of the Non-Potable Water Supply within the Pine Ridge Reservation. This project will support tribal resilience by reducing the demand on the rural water system during drought periods and improve OST's agriculture and food sovereignty by giving the Tribe more authority over the use of water and conservation practices on the Reservation.

Tribe:	Puyallup Tribe of the Puyallup Reservation	Amount Funded:	\$594,940
Title:	<i>Traditional Agriculture and Green House Infrastructure Implementation Project</i>		

Project Description: This Traditional Agriculture and Green House Infrastructure Implementation Project will develop an agricultural space to increase climate resiliency principles and strategies, provide cultural resources, and promote land stewardship. This implementation project is based on the climate adaptation strategies established from the 2019 Tribal Climate Resilience award that funded the Tribe's Comprehensive Land Use Plan.

Tribe:	Red Lake Band of Chippewa Indians, Minnesota	Amount Funded:	\$250,000
Title:	<i>Developing Implementation Project Plans for Climate Adaptation</i>		

Project Description: The Red Lake DNR Water Resources Program has developed several projects since the development of the Climate Adaptation Plan in 2014. Development of engineered plans will be relatively straight forward and will require the identification of a needed engineered plan for the completion of an implementation project. The plans will then be developed either by the Tribe's partners at the Natural Resources Conservation Service or by an engineering firm. The second phase of the project will require more planning and outreach but is fully within the capabilities of the tribal program. This project phase will require revisiting the Red Lake Tribe's existing Climate Adaptation Plan and updating the plan with on the ground implementation projects. The project will also support EV infrastructure and GHG reduction efforts.

Tribe:	Rosebud Sioux Tribe of the Rosebud Indian Reservation, South Dakota	Amount Funded:	\$1,942,740
Title:	<i>Open Loop Geothermal Heat System for the White River Health Care Center</i>		

Project Description: This planning project is designed to strategically initiate outreach, engagement, and garner support among tribes from the Oceti Sakowin Nation, (Lakota, Nakota, and Dakota Nations) to determine the need, interest, and viability of a regional approach to climate resilience. The year-long effort would culminate in a climate summit and the creation of a Charter to be signed by all interested and willing tribes. It also builds on funded projects by the Sicangu Lakota Oyate (Rosebud Sioux Tribe) including a climate adaptation plan, a Sicangu Climate Center, traditional ecological knowledge (TEK), as well as many existing data resources, federal, nonprofit, and academic partnerships. The Sicangu Lakota Oyate have already demonstrated a commitment to building local resilience, and now the Tribe seeks to unify the Oceti Sakowin tribes under a spirit of collaboration, unity and diversity, and strength in the collective to prepare for current and future climate events. Through research, a series of workshops, interviews, community meetings, conversations with elders, and other culturally relevant means of outreach and engagement with neighboring tribes



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across the region, the Tribe hopes to identify each tribe's resilience priorities and any barriers that may impede a successful collaboration.

Tribe:	Saint Paul Island (See Pribilof Islands Aleut Communities of St. Paul & St. George Islands)	Amount Funded:	\$3,530,654
Title:	<i>Erosion Stabilization of Community Cemetery located on Black Bluffs, St. Paul Island, AK</i>		

Project Description: St. Paul Island, Alaska, is experiencing increased rates of coastal erosion due to high tides, storm surges, wind, and waves. Coastal erosion is currently threatening critical infrastructure and the area of greatest concern is the community cemetery. The Aleut Community of St. Paul Island Tribal Government has identified this threat in its Hazard Mitigation Plan (2016), has completed feasibility analysis, engineering, and design for preferred alternative and with this project, will mitigate the erosion threat to the cemetery located on the Black Bluffs by: 1. Stabilize the top bluff by excavating an overburden layer to finish grade and place an erosion control blanket with topsoil and revegetate the area 2. Stabilize the toe bluff by placing and grading a stone armor layer.

Tribe:	Samish Indian Nation	Amount Funded:	\$750,000
Title:	<i>Samish Indian Nation Greenhouse Gas Footprint Reduction Through Solar Retrofits</i>		

Project Description: The Samish Indian Nation will place solar panels on approximately 19 buildings to provide renewable energy benefits to Tribal Citizens and Government offices. Solar will be installed on Samish's 14 cottage elder's housing project, Xwch'a'nteng or Place of Coming Home. In addition, solar will be installed on the Natural Resources Department, two early learning centers and the Chela'ngen or Cultural Department Building. The result of this power production will result in measurable greenhouse gas reductions at Samish residential and government buildings and assist Samish citizens by lowering utility costs. This project will also provide power grid stability through diversification and assist the Tribe, State of Washington and the United States in meeting greenhouse gas emission reduction and meet climate resiliency goals.

Tribe:	Tulalip Tribes of Washington	Amount Funded:	\$556,008
Title:	<i>Mountains, Meadows and Mammals: Climate Change and Alpine Wildlife Communities in the North Cascades, Washington</i>		

Project Description: The North Cascades Mountain Range of Washington State is facing accelerated impacts of climate change compounded with a substantial rise in outdoor recreation. The Tulalip Tribes have a growing concern over how these factors may be influencing wildlife population declines in this area. To address this, The Tulalip Tribes will employ advanced technologies including camera traps and artificial intelligence to monitor wildlife communities, climate variables, and human use in alpine landscapes. The aim of this project is to support indigenous knowledge, enhance climate resilience, and strengthen tribal relationships. The data will be used to inform conservation and management of natural and cultural resources in the Pacific Northwest and beyond.

Tribe:	Upper Skagit Indian Tribe	Amount Funded:	\$3,837,208
Title:	<i>Final Design and Construction of Potable Water Intertie to Mitigate Climate Change Risks</i>		

Project Description: The Upper Skagit Indian Tribe operates a Class A public water system to serve its Helmick Road Reservation and several adjacent off-Reservation residential properties. The Tribe received FY20 BIA Tribal Resilience (TCR) funds to complete an alternatives analysis and preliminary design for an emergency intertie with Skagit PUD #1. This award will provide the resources to advance the preliminary design to final design and construction of the intertie with the Skagit PUD #1 water system to provide a backup source of water in an emergency such as a wildfire. This will help the Tribe protect-in-place its Helmick Road Reservation public water system from these climate risks.



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Tribe:	Village of Chefnak	Amount Funded:	\$4,000,000
Title:	<i>Home stabilization and construction</i>		

Project Description: This project addresses severe ongoing threats from erosion, flooding, and permafrost degradation. The Village of Chefnak will repair and replace up to 30 home foundations that have been or will be damaged by permafrost degradation. The Village will also construct two homes to replace damaged homes that are threatened and cannot be relocated to a safe location.



Set-Aside 1: First Time Awardee

First Time Awardee awards are designed to assure equity in available funding for Tribes at different places in their climate resilience and adaptation planning efforts. This funding has been set aside for Tribes who have not received a planning or implementation award in previous years, and is intended to support Tribes without dedicated staffing or climate programs who are at the beginning stages of their climate change program development.

Number of Awards: 16

Amount Funded: \$3,420,505

Tribe:	Asa'carsarmiut Tribe	Amount Funded:	\$235,000
Title:	Asa'carsarmiut Adaptation Planning Project		

Project Description: The Asa'carsarmiut Tribe will conduct a multi-threat disaster resilience planning effort for the community of Mountain Village, Alaska including wildfires, permafrost degradation, erosion, and flooding. The Tribe represents Tribal members residing in Mountain Village and those tribal members who have relocated to other communities. The outcomes and outputs for the Tribe's planning efforts include an environmental threat analysis on erosion, flooding and permafrost degradation and potential impact to structures, roads and the solid waste site, a Solid Waste Site and access road - preliminary engineering report, a Community Wildfire Protection Plan, and based upon these reports - drafting of an Asa'carsarmiut hazard mitigation plan.

Tribe:	Cocopah Tribe of Arizona	Amount Funded:	\$152,062
Title:	Cocopah Climate Resilience Capacity Building		

Project Description: The Cocopah Indian Tribe is in the beginning stages of developing a climate change resilience program. The Cocopah Indian Tribe will build capacity to plan for and adapt to impacts of climate change through staff support, training, and climate resilience program development. The Tribe will build internal tribal capacity for climate resilience through staff support, training, and program development efforts. The Climate Resilience Specialist will work to develop the tribal climate change resilience program by completing a scoping needs assessment and developing a program design framework for implementation moving forward. In addition, the Specialist will assist EPO in addressing current needs such as participating in the NEPA process for actions with potential impacts to the tribe's climate-sensitive resources. The Specialist will spread awareness of the program and conduct educational outreach in the tribal community.

Tribe:	Coushatta Tribe of Louisiana	Amount Funded:	\$245,000
Title:	GIS and Support Staff		

Project Description: The Coushatta Tribe's First Time Set Aside capacity building award will be used to hire positions to support the development and implementation of its climate adaptation plan. The Tribe currently has an excellent staff supporting a range of programs and initiatives including infrastructure, agriculture, and environmental areas, among others. However, as the Tribe seeks to advance their climate resilience, the Tribe has an acute need for additional capacity to support the implementation of resilience projects and thus bolster the Tribe's self-sufficiency. Key to building resilience will be the spatial analysis of risk, inventorying physical assets, and the acquisition of adjacent parcels of land to facilitate resilience projects. These areas will include impacted wetlands to be restored for nature-based stormwater management and flood reduction, farmlands for sustainable agriculture, lower-risk sites for housing development, and other critical needs.



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Tribes:	Grand Traverse Band of Ottawa and Chippewa Indians, Michigan	Amount Funded:	\$245,128
Title:	<i>GTB Carbon Footprint Implementation and Mitigation.</i>		

Project Description: The Grand Traverse Band of Ottawa and Chippewa Indians (GTB) is a federal Indian tribe located in Northwest Michigan. GTB will prepare its Tribal government, its constituents, and multiple stakeholders to mitigate the impacts of climate change. The purpose is to plan, develop and recommend a comprehensive planning document for use by the GTB tribal government. The Tribe will establish the carbon footprint of GTB Government and GTB enterprises and then will mitigate to lessen the GTB Carbon footprint by the implementation of clean energy alternatives.

Tribes:	Lac Vieux Desert Band of Lake Superior Chippewa Indians of Michigan	Amount Funded:	\$171,842
Title:	<i>Lac Vieux Desert Climate Resilience Plan</i>		

Project Description: The Tribe is concerned with climate change and how to plan for potential impacts on its natural resources, traditional ways, tribal members' health, and economic endeavors. This project will provide an opportunity for the Lac Vieux Desert Tribal community to identify areas of vulnerability and develop a Climate Resilience Plan with their Indigenous Knowledge that can enhance their Nation's resiliency. The project goals for this funding would be to create a Climate Plan Coordinator position and develop a climate resilience plan. This project will consist of hiring a Climate Plan Coordinator, gathering data, getting community input, and creating and approving a plan. The expected outcome is to increase tribal workforce development and narrow the focus of previous work with ITCMI for the Tribe's Nation and its members.

Tribes:	Lower Elwha Tribal Community	Amount Funded:	\$162,126
Title:	<i>Resilience Rising: Lower Elwha's Climate Adaptation Plan</i>		

Project Description: Resilience Rising: Lower Elwha's Climate Adaptation Plan project will blend traditional Klallam knowledge, scientific rigor, and community engagement to address climate change. Guided by an external consultant, this project will leverage data from a comprehensive Climate Change Vulnerability Assessment, community surveys, tribal government staff input, and a cultural and traditional focus group. Key objectives include developing a robust Climate Adaptation Plan to build government capacity and foster sustainable departments. The holistic approach weaves vulnerabilities, culture, and sustainability into the plan. This project leaves a lasting legacy, sharing insights with the Tribe and other communities facing similar challenges. Harmoniously blending science and culture, the Tribe navigates a resilient path toward a sustainable future.

Tribes:	Match-e-be-nash-she-wish Band of Pottawatomi Indians of Michigan	Amount Funded:	\$189,844
Title:	<i>Gun Lake Tribal Graywater Reuse Plan Project</i>		

Project Description: The Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians, DBA Gun Lake Tribe, is proposing a project to complete broad planning for a graywater reuse system to reduce water draw from the Tribe's aquifer. The Tribe will accomplish this by working with a consultant to develop a plan that recommends specific water for reuse, the mechanicals necessary for the reuse, and an outline of the permitting process along with high-level budget estimates and timeframes for future implementation.



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Tribe:	Minnesota Chippewa Tribe - Leech Lake Band	Amount Funded:	\$201,268
Title:	<i>Implementing the use of best available technology and science to eliminate data gaps and strengthen priorities within Leech Lake Band of Ojibwe's resiliency/climate change mitigation plans.</i>		

Project Description: The Gaa-zagaskwaajimekaag/Leech Lake Band of Ojibwe (LLBO) is a sovereign Anishinaabe Nation part of the Minnesota Chippewa Tribes. It is situated in the central northwest portion of Minnesota and is often referred to as the Manoomin (wild rice) stronghold. Given the unique overlap of several government organizations and private ownerships the Band's Division of Resource Management (DRM) is tasked with the essential duty to form partnerships and collaborations that work towards a mutually beneficial goal of shared stewardship. The Leech Lake Tribal Council enforces the principle that stewardship is a sacred duty that the Anishinaabe have promised to uphold for Gitche Manitou – the Great Spirit. The goals and plans for this funding are a culmination of the collective duties that each department at the DRM and the Leech Lake Emergency Management Division have identified.

Tribe:	Native Village of Chitina	Amount Funded:	\$244,684
Title:	<i>Planning for the Native Village of Chitina's Climate Change needs</i>		

Project Description: The Native Village of Chitina (NVC) project will help address climate impacts and provide the first climate related project activities for the people of NVC. The local Chitina climate plan will build upon the regional climate adaptation plan recently completed by Copper River Native Association and other organizations, agencies, and contractors. Virtual training sessions held twice a month with the Chitina planning team will build climate knowledge and complete the five steps of adaptation planning: understand climate exposure; assess vulnerability and risk; investigate options and identify solutions; prioritize and plan; and take action. The NVC will develop a practical adaptation plan with strategies that address the Tribe's priority risks and increase climate resilience for Chitina people, infrastructure, and natural subsistence resources.

Tribe:	Native Village of Eyak (Cordova)	Amount Funded:	\$249,334
Title:	<i>Climate Resilient Ecosystems and Communities through Mariculture</i>		

Project Description: The Native Village of Eyak (NVE), located in Cordova, Alaska, is facing significant challenges due to climate change and its impacts on the Northern Gulf of Alaska's ecosystems. Rising temperatures, glacial melting, prolonged marine heatwaves, and ocean acidification pose severe threats to the Tribe's traditional way of life. This project aims to address these challenges by exploring sugar kelp farming as a climate adaptation and resilience strategy to promote ocean acidification mitigation, habitat creation, food security, and workforce development. NVE will assess their research farm site in Cordova for these benefits, collaborate with the Alutiiq Pride Marine Institute to assess ocean acidification, participate in the Mariculture Research and Restoration Consortium program, and involve the Prince William Sound College for workforce development. Regular data collection and analysis on kelp growth, water quality, and environmental impacts will be central to this project. The Village's goal is to create a tribally led, ecologically and economically resilient industry. By embracing innovative approaches like mariculture, NVE seeks to overcome the challenges posed by climate change, offering a path to a more sustainable future.

Tribe:	Native Village of Paimiut	Amount Funded:	\$223,546
Title:	<i>Native Village of Paimiut Asqinaq Climate Resilience Planning</i>		

Project Description: The Native Village of Paimiut will build capacity within the Tribe and their threatened community for climate adaptation planning. Native Village of Paimiut has partnered with the Alaska Wildlife Alliance to complete a Climate Vulnerability Study of the lands of the Asqinaq. The results should be able to help provide the Tribe data that they can use to relocate back to the on the east bank of the Lithkealik River in the Asqinaq Mountains



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within the next few years. The Tribe will create a climate resilience position, create a desktop guide for their region, restart the multi-village environmental consortium meetings and mobilize once the Tribe has the climate vulnerability study done so that they can move back to the Tribe's ancestral lands on the mountain. Previous studies show that the permafrost melt in the Hooper Bay area will be complete by 2040 and the areas Hooper Bay and Chevak are in will be underwater by the end of the century. The Tribe needs to be able to show that it isn't just storms (like Typhoon Merbok) that put them at risk. Working with the Tribe's partners, they have climate experts and the capability to train youth in the Tribe's Youth Ranger Program and LYSD Kusilvak Career Academy through in person and virtual events, share information to the community through workshops and presentations and provide a model to other villages in their efforts to create their own climate vulnerability studies and their own climate resilience plans. The Tribe has a multi-faceted approach to include everyone in the Tribe's communities, creating citizen scientists and documenting the traditional ecological knowledge that Yup'ik have used for millennia to inform and direct their decisions.

Tribe:	Pueblo of Picuris, New Mexico	Amount Funded:	\$227,273
Title:	<i>Pueblo of Picuris Climate Resilience Capacity Building</i>		

Project Description: The Pueblo of Picuris ("The Pueblo"), a federally recognized Indian Tribe located in the foothills of the Sangre de Cristo mountains in northern New Mexico, will build capacity for planning with regard to pressing climate resilience issues, for most of which the Pueblo is in the 90th percentile of risk or above. Currently, the Pueblo lacks administrative and data capacities for the planning necessary to address such issues, most recently due to loss of personnel and funding during the pandemic. In particular, the Environment Department will hire a Climate Resilience Planner who would coordinate with the various programs and departments to ensure a holistic approach that fits the Pueblo's resilience goals, especially in renewable energy. In addition, the Pueblo will support the Environmental Manager and a Data Technician who would coordinate with the Climate Resilience Planner by collecting all relevant documentation from the various programs and departments and digitizing them for planning and implementation.

Tribe:	Snoqualmie Indian Tribe	Amount Funded:	\$245,000
Title:	<i>Incorporating Snoqualmie Indigenous Knowledge in Climate Adaptation</i>		

Project Description: The Snoqualmie Tribe—sduk^walbix^w in the Tribe's Native language—consists of a group of Coast Salish Native American peoples from the Puget Sound region of Washington State. The Snoqualmie Tribe to conduct a two-year climate resilience planning project to incorporate Snoqualmie indigenous knowledge in climate adaptation. The Tribe will accomplish this through conducting outreach and interviews and compile indigenous knowledge of Snoqualmie Tribal Members, Elders, and cultural practitioners regarding climate change, its impacts, and actions that should be taken, compiling available science, inventories, and a gap analysis.

Tribe:	The Muscogee (Creek) Nation	Amount Funded:	\$215,770
Title:	<i>Arkansas River Restoration & Erosion Prevention Project</i>		

Project Description: Climate change poses severe and multifaceted challenges to the Muscogee (Creek) Nation (MCN), jeopardizing cultural heritage, economic stability, and the overall well-being of its citizens. As the fourth largest tribe in the United States with a reservation of roughly three million acres, MCN faces unique challenges and vulnerabilities from the varying environmental conditions and large residential populations within the MCN reservation. The MCN has already begun combating the effects of global warming by investing in infrastructure, research, and direct services that benefit both tribal and non-tribal members within the reservation; however, for these programs and developments to fully meet the community's needs, the Nation needs to grow its internal



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capacity. A financial set-aside dedicated to capacity building from the federal government will boost climate resiliency, emergency preparedness, and sustainable development within the MCN reservation.

Tribe:	United Keetoowah Band of Cherokee Indians in Oklahoma	Amount Funded:	\$198,628
Title:	<i>Keetoowah Climate Resilience Operation Plan</i>		

Project Description: The United Keetoowah Band of Cherokee Indians in Oklahoma (UKB) recognizes and is concerned about the change in climate impacting tribal members residing within the fourteen-county boundaries of the Tribal Nation, with many citizens directly and indirectly affected by extreme storms and weather induced emergencies. As a result, UKB currently has limited resources and is seeking additional federal funding to plan and effect research-based initiatives that directly address climate change. Utilizing the US Climate Resilience Toolkit the UKB will develop a comprehensive plan addressing climate change for tribal members located in north eastern Oklahoma.

Tribe:	Ute Indian Tribe of the Uintah & Ouray Reservation, Utah	Amount Funded:	\$214,000
Title:	<i>Ute Indian Tribal Climate Preparedness Assessment</i>		

Project Description: The Ute Indian Tribe Business Committee (“Business Committee”) has determined that the Uintah and Ouray Reservation is vulnerable to potential natural and man-made disasters which threaten loss of life and property, such as flooding, air quality, drought, mudslides, and wildfires. The Business Committee has also determined that climate change threatens to increase the intensity and frequency of such disasters. To better understand the nature of enhanced risks that intensified disasters pose to Tribal members, infrastructure, and resources, the Business Committee will develop a Climate Preparedness Assessment (“Assessment”). The objective of the Assessment will be to formulate a baseline analysis of the Tribe’s overall climate preparedness which can then be used to inform future planning and implementation grants geared toward adaptation planning and/or relocation, managed retreat, and protect in place efforts which address gaps in the Tribe’s climate preparedness identified in the Assessment.



Set-Aside 2: Habitat Restoration and Adaptation

TCR has reserved funding for habitat restoration and adaptation planning or implementation projects related to conservation and restoration for cultural subsistence resources. Awards allocated through this set-aside will fund watershed-level restoration, especially after fire, flood, drought, and for landscapes at risk due to climate change impacts, such as forests and grasslands.

Number of Awards: 20

Amount Funded: \$27,850,440

Tribes:	Big Valley Band of Pomo Indians of the Big Valley Rancheria, California	Amount Funded:	\$207,418
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Title: *Climate Resilience Monitoring and Capacity-Building*

Project Description: Since 2014, the Big Valley Rancheria Environmental Protection Department (BVR EPA) has assumed a leadership role in building and coordinating an intertribal, multi-agency task force to monitor Clear Lake and its tributary creeks in the Big Valley Subbasin for climate change-related impacts. The Clear Lake hitch Lavinia exilicauda chi (chi) in Adobe Creek, have been a focus species for monitoring efforts and scientific study for BVR EPA over the last several years. Tribal members of the Big Valley Band of Pomo Indians and the other six tribes in the watershed have observed degrading habitat conditions and declining chi numbers for decades. Following the critically low chi population surveys of 2022, BVR EPA received a grant from California Department of Fish and Wildlife to perform field monitoring in the Big Valley Subbasin creeks from Feb 1, 2023, to May 30, 2023, to prevent fish stranding incidents and document instream habitat conditions during spawning. BVR EPA will develop a new creek monitoring program and protocol using drones and automatic analysis of imagery data to track instream conditions of these culturally significant species that are heavily impacted by climate change in the watershed. The project will fund Tribal capacity building activities to expand the scope of natural resources monitoring the BVR EPA is conducting and enhance efficiencies in the monitoring program but using drone and image processing technologies.

Tribes:	Central Council of the Tlingit & Haida Indian Tribes	Amount Funded:	\$415,089
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Title: *Seacoast Indigenous Guardians Network Data Collection*

Project Description: The Central Council of the Tlingit & Haida Indian Tribes of Alaska will conduct a data collection project led by the Tribe's Seacoast Indigenous Guardians Network, a collaboration among Tribal and federal governments, Alaska Native Corporations, and non-profit conservation organizations. This project speaks squarely to the Tribe's ongoing mission to better understand and prepare to combat the potential socioeconomic impacts of climate change. At its core, this initiative aims to establish a comprehensive region-wide data collection, tracking, and analysis system that encompasses a diverse array of data, ranging from scientific observations to Indigenous Knowledge.

Tribes:	Cocopah Tribe of Arizona	Amount Funded:	\$1,051,040
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Title: *Cocopah West Limitrophe Restoration Project*

Project Description: The Cocopah Indian Tribe will restore 390 acres of severely degraded riparian habitat on the Cocopah West Reservation in the historic floodplain of the Colorado River. The project will restore riparian cottonwood-willow, wetland, and upland mesquite habitat utilizing the Tribe's water rights.



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Tribes:	Confederated Tribes and Bands of the Yakama Nation	Amount Funded:	\$701,740
Title:	<i>Yakama Nation Tract D Water Resources Planning – Developing Assessment & Adaptation Tools</i>		

Project Description: Starvation Flats meadow is a 2,000-acre meadow within the Yakama Reservation with great cultural, historic, and natural resources significance to the Yakama people. This meadow has been degraded for over 150 years by overgrazing from sheep and cattle, road building, and drainage ditching, drastically impairing rich traditional root grounds and reducing hydrologic resilience through accelerated runoff and channel incision. In order to restore Tribal resources, the Yakama Nation has undertaken meadow restoration actions, including reconnecting channels to the meadow surface, controlled burning, and treatment of head cuts. The current project will continue channel and meadow cultural and hydrologic restoration in a key incised and head cutting area over one mile of stream channel and five acres of revegetation. The project will raise the meadow water table over approximately 30 acres, causing increased growth of meadow vegetation, including traditional foods and medicines, improved wildlife habitat, and greater hydrologic and vegetation resilience to a warming climate.

Tribes:	Confederated Tribes of the Umatilla Indian Reservation	Amount Funded:	\$120,673
Title:	<i>Huckleberry Phenology Monitoring Program Expansion</i>		

Project Description: This project will expand on the Confederated Tribes of the Umatilla Indian Reservation's (CTUIR) existing efforts to collect data on huckleberry, a culturally significant food for the CTUIR, in the face of climate change. If current trends in changes to climate are maintained over the next 50-100 years, datasets which inform adaptive management are vital to the success of natural resource resilience for the CTUIR. The Tribe will also collect traditional and current ecological knowledge from Tribal Gatherers to inform future management goals; and increase Tribal capacity through training of a student intern.

Tribes:	Flandreau Santee Sioux Tribe of South Dakota	Amount Funded:	\$3,814,920
Title:	<i>Implementation of Flood Protection Structures to Build Resiliency within the Flandreau Santee Sioux Tribal (FSST) Community</i>		

Project Description: The Flandreau Santee Sioux Tribe (FSST) has developed a solution to challenges the Tribe is facing from a changing climate. Due to the Tribes proximity to the Big Sioux River, Tribal member properties are threatened by flooding along the Big Sioux River and its tributaries. To protect the property of Tribal members, FSST is will implement a protect-in-place project along waterways where flooding issues have been a problem. The project will utilize data gathered from studies conducted by the U.S. Army Corps of Engineers along the Big Sioux River and its tributaries to make decisions on how the project should be constructed. Data indicates that constructing riprap along Flandreau Creek and Big Sioux River near the affected homes will restore the stream bank. Indigenous plants with cultural significance will be used to re-vegetate the restored stream banks to stabilize the banks and prevent future erosion.

Tribes:	Houlton Band of Maliseet Indians	Amount Funded:	\$133,055
Title:	<i>Planting a riparian area on tribal land bordering the Meduxnekeag River with trees of a rare assemblage of plant species to improve watershed resilience and forest adaptation to climate change</i>		

Project Description: The Houlton Band of Maliseet Indians will plant St. John-Appalachian Hardwood trees, including large seed bearing trees, saplings, and seedlings on a 3.5-acre riparian site on tribal land adjacent to the mainstem Meduxnekeag River to continue establishing a rare plant assemblage at this site with species more typically growing further south using a new planting strategy, to increase biodiversity and enhance forest climate adaptation, restore a riparian buffer to protect the river from polluted storm water, over time provide shade that can help reduce water temperatures as a climate resilience strategy for culturally significant cold water fish such as brook trout, and eventually contribute large wood to the river channel that will enhance aquatic habitat.



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Tribes:	Kashia Band of Pomo Indians of the Stewarts Point Rancheria, California	Amount Funded:	\$499,910
Title:	<i>Tribal Sea Urchin Aquaculture: Planning a Response and Resilience Strategy for Climate Change Impacts in Northern California's Kelp Forests</i>		

Project Description: Purple sea urchins are herbivorous marine invertebrates that feed on kelp, and these animals have dramatically overgrazed kelp forests in Northern California. The Kashia Band of Pomo Indians, in partnership with California Sea Grant, seek to develop a resilience strategy for these climate change driven challenges, by conducting a planning and proof of concept project to remove and “ranch” purple sea urchins. To economically incentivize the mass removal of urchins from kelp forests to enable their recovery along Kashia’s coastline, Kashia will pilot the use of newly established recirculating aquaculture technology recently developed by project partner and Sea Grant Aquaculture Extension Specialist. This is a novel and necessary approach to support urchin removals and kelp forest restoration efforts as urchins have no economic value once they have eaten down the kelp forest; they become emaciated and persist in a dormant state for decades while preventing kelp forest recovery. The results from this pilot effort will allow the Tribe to make critical marine resource management and restoration planning decisions, contributing information on the potential of this coastal climate adaptation and resilience approach.

Tribes:	Lower Brule Sioux Tribe of the Lower Brule Reservation, South Dakota	Amount Funded:	\$578,699
Title:	<i>Lower Brule North River Ecosystem Restoration</i>		

Project Description: This 3.9-mile-long project is Phase Two of a three-phase River ecosystem restoration project on Lake Sharpe, a Missouri River reservoir on the Lower Brule Sioux Reservation in South Dakota. This project will combat the effects of climate change on shoreline erosion of the Missouri River Lake Sharpe Reservoir on the Lower Brule Sioux Reservation including stabilization of 3.9 miles of shoreline and restoring riparian communities. This project will stabilize the shoreline, stop erosion, and restore riparian, wetland, grassland, island, and peninsula habitats. It will improve climate resilience of the Lower Brule Sioux people by creating areas for traditional subsistence plant gathering, with easy access for youth and elders, as well as connecting to and expanding a riverfront trail to provide recreational opportunities and a place for social gathering, ultimately increasing resilience to climate-driven declines in nutritional and traditional plants, mental health, and physical health.

Tribes:	Lummi Tribe of the Lummi Reservation	Amount Funded:	\$9,803,699
Title:	<i>South Fork Nooksack Watershed Project</i>		

Project Description: The purpose of this project is to expedite the ongoing efforts to recover Chinook salmon in the South Fork Nooksack River. The South Fork Nooksack (SFN) is a temperature impaired river and climate change is exacerbating conditions lethal to salmonids. As tribes are culturally, spiritually, and economically dependent on Chinook salmon, this project advances tribal treaty rights by ensuring the Chinook salmon mortality crisis is addressed as soon as possible, by advancing key projects that are developed and ready for immediate habitat improvements. The project will restore watershed processes along 3.2 miles of the SFN River and Skookum Creek to improve ESA-listed salmonid spawning, rearing and holding habitat while increasing low flow and thermal refugia. The project addresses habitat limiting factors identified in the 2005 WRIA 1 Salmonid Recovery Plan (lack of key habitats, low habitat diversity, high water temperature, high channel instability, and elevated fine sediment) by implementing restoration strategies developed to meet habitat targets identified in the 2021 WRIA 1 Salmon Recovery Interim Technical Work Product. This project will also increase the availability of clean, cool water to Skookum Creek Hatchery to increase production of juvenile salmon for subsistence, ceremonial and commercial fishing. Ecosystem and community resilience will be strengthened by restoring natural watershed processes and increasing ecosystem resilience to climate change impacts.



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Tribe:	Nansemond Indian Nation	Amount Funded:	\$249,976
Title:	<i>Nansemond Indian Nation Climate Impacts Vulnerability Assessment</i>		

Project Description: The Nansemond Indian Nation wishes to perform a climate vulnerability assessment that focuses on the unique needs and characteristics of its citizens and its properties. As a sovereign Tribe located on the East Coast, the Nation hopes this will be the first step towards a climate adaptation plan that will strengthen the Nation in the face of climate change and its various impacts. The Nation will procure a subject-matter expert in climate threat assessment to perform the assessment as part of a two-year project led by the Tribe's Environmental Program Coordinator.

Tribe:	Native Village of Ekwok	Amount Funded:	\$634,569
Title:	<i>Ekwok Nushagak River Bank Stabilization Project</i>		

Project Description: The Native Village of Ekwok, Alaska, is located along the bank of the Nushagak River in the Bristol Bay Region of southwestern Alaska. Ekwok experiences riverine erosion that threatens both public and private infrastructure. The power plant, bulk fuel farm, homes, boat launch facilities, septic systems, and the community subsistence fish rack area are some assets that are located near the eroding shoreline. This threat was identified in the Tribe's adopted Tribal Hazard Mitigation Plan, dated January 2019. Ekwok Tribal Council, in partnership with Bristol Bay Native Association, will perform bank stabilization activities using natural materials that will slow the rate of erosion along the village riverfront. Bristol Bay Native Association will hire an engineering consultant to assist with planning, permitting, work plan development, procurement, and construction oversight, while the Tribe will construct the project with local equipment and a local community workforce.

Tribe:	Nez Perce Tribe	Amount Funded:	\$248,253
Title:	<i>Nez Perce Tribe Wetland and Riparian Restoration Prioritization and Planning Project for Climate Change Resilience and Mitigation</i>		

Project Description: The loss of local wetlands and access to habitats for gathering has been acutely impactful to Nez Perce gatherers, fish, wildlife, hydrology, and water quality. Restoration of wetlands and riparian areas are important climate change adaptation and mitigation strategies, so a large wetland restoration project seems like an ideal fit for the Tribe. However, jurisdictional issues and checkerboarded land ownership patterns present challenges for project planning and implementation. In addition, homes and infrastructure located within flood plains complicate efforts to manage for fish and wildlife habitat and restore floodplain connectivity. The Tribe is working on purchasing back lands on the reservation, but land acquisition and management decisions could benefit from focusing efforts on areas where restoration and flood mitigation projects would yield the greatest benefits, and where landowners or land trusts are willing to work on collaborative restoration projects on neighboring parcels. The Tribe will build a prioritization and feasibility matrix to narrow down locations where restoration projects would be advantageous and feasible on the reservation, and to focus efforts on projects that would yield the broadest benefits.

Tribe:	Port Gamble S'Klallam Tribe	Amount Funded:	\$250,000
Title:	<i>Port Gamble S'Klallam Planning for Ecologic and Hydrologic Resiliency Under Climate Change</i>		

Project Description: The nəxʷqíyt nəxʷsłáyəm' | Port Gamble S'Klallam Tribe (PGST) resides on ~2,700 acres of land in north Kitsap County, Washington, first established as a reservation in 1934 under the Indian Reorganization Act. Building on the Tribe's 2017 Climate Impact Assessment, PGST is working to develop a Climate Action Plan in the coming years supported by grants from the United States Environmental Protection Agency and the Washington State Department of Ecology. Support is needed to improve data collection and sharing between tribes and local governments to tie into regional models and identify expected impacts to water resources and vegetation. This work will model the impact of



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climate change upon water resources and land vegetation on the PGST Reservation and across the northern Kitsap Peninsula. Funding will be further directed towards the design of a managed aquifer recharge (MAR) project on Tribal land needed to mitigate the impact of climate on baseflow in key perennial streams, including significant fish habitat. Such small stream systems provide important refuge for biological diversity as climate and development deplete habitat throughout the region.

Tribe:	Pueblo of Picuris, New Mexico	Amount Funded:	\$3,999,863
Title:	<i>Wildfire Resilience Actions Applied at Picuris Pueblo (WRAAPP): A "Wrap-Around" Approach to Community Wildfire Risk Reduction</i>		

Project Description: The Pueblo of Picuris ("The Pueblo"), a federally recognized Indian Tribe located in the foothills of the Sangre de Cristo mountains in northern New Mexico, will implement wildfire risk reduction strategies to decrease the impacts from catastrophic wildfire on Pueblo lands and communities. The actions, pre-identified in planning documents, include: 1) fuels treatments to lower the risk, intensity, and capacity of fire at priority areas including the wildland-urban interface and cultural sites, 2) the implementation of a fire prevention code, education and enforcement of fire restrictions, 3) post-fire restoration activities, including irrigation improvements, and 4) resilient infrastructure improvements recommended by the NFPA's Firewise USA Program to reduce the risk of fire. The Pueblo will conduct these activities from 2024 to 2026.

Tribe:	Suquamish Indian Tribe of the Port Madison Reservation	Amount Funded:	\$169,274
Title:	<i>Simulating Nutrient and Contaminant Flows into Bays and Inlets on the Kitsap Peninsula that Affect Shellfish Beds</i>		

Project Description: The goal of this project is to find ways to prevent pollutants from upland sources from contaminating shellfish growing areas where members of the Suquamish Tribe of the Port Madison Indian Reservation have gathered shellfish for millennia. The approach is to aggregate existing contaminant data and model the fate and transport of contaminants through watersheds to the shore, then simulate the efficacy of different strategies to reduce contaminant flows into shellfish growing areas under future climate change scenarios. This project builds on an EPA modeling and decision support platform being calibrated with Kitsap Peninsula hydrology to simulate impacts of climate change on stream health and salmon survival. The modeling platform will be transferable to other tribes and county governments in the Kitsap Peninsula region, and can be adapted for use in any watershed.

Tribe:	The Chickasaw Nation	Amount Funded:	\$4,184,611
Title:	<i>Restoring the Blue River through Collaborative Conservation</i>		

Project Description: The Blue River Watershed's perennial flows serve as a readily available water supply for The Chickasaw Nation (CN) and through this project, will be restored and protected for future generations. Through the Blue River Watershed, the CN can ensure the survival of culturally important habitats for future generations, making the protection of this river imperative. The CN and partners will mitigate this threat through the project by enabling the implementation of comprehensive, grassroots conservation efforts to encourage climate sustainability, improve water quality and quantity, reduce wildfire risks, address habitat fragmentation and improve forage and wildlife habitation throughout 15,000 acres of the Blue River Watershed.



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Tribe:	White Mountain Apache Tribe of the Fort Apache Reservation, Arizona	Amount Funded:	\$373,044
Title:	<i>White Mountain Apache Tribe Dzil Ligai Watershed Protection Project</i>		

Project Description: The White Mountain Apache Tribe (WMAT) is applying for funding under Set Asides-Habitat Restoration and Adaptation funding category to reduce the probability of catastrophic wildfire impacts to the Dzil Ligai (Tribal Mount Baldy Wilderness or MBW) watershed. The Tribal MBW, located within the Fort Apache Indian Reservation in east-central Arizona, is culturally and ecologically significant to the WMAT. Groundwater recharge and headwaters derived from the MBW watershed is the primary source of drinking water for the WMAT and downstream Salt River basin stakeholders. Awarded funding will be utilized to perform watershed habitat restoration in the fire-prone MBW forests to protect vital headwater streams and wetlands.

Tribe:	Yakutat Tlingit Tribe	Amount Funded:	\$222,172
Title:	<i>Restoring a Productive, Traditional Clam Garden to Mitigate Climate Change Impacts in the Intertidal Ankau Saltchucks, Yakutat, Alaska</i>		

Project Description: Yakutat Tlingit Tribe (YTT) plans to construct a traditional clam garden in Ankau Saltchucks, Yakutat, Alaska, blending Indigenous knowledge and Western science. These gardens, used by the Yakutat Tlingit for generations, sustainably provide shellfish for the community. Climate change has impacted a former clam garden site, reducing shellfish productivity. YTT will use GIS LiDAR data and Traditional Ecological Knowledge to select the ideal location. YTT, with local volunteers, will build the garden, monitoring its impact through continuous water quality, shellfish population assessments, and measurements of phytoplankton productivity. The traditional clam garden in the Ankau Saltchucks in Yakutat, Alaska, will restore intertidal shellfish habitat.

Tribal Organization:	Chugach Regional Resources Commission	Amount Funded:	\$192,435
Title:	<i>Evaluating subsistence shellfish beaches for future enhancement and clam garden projects</i>		

Project Description: This project aims to conduct habitat suitability studies and traditional ecological knowledge exchange workshops to support site selection for the restoration of traditional shellfish gardens in the Chugach region of southcentral Alaska. Clam gardens are an ancient mariculture technique with modern-day applications to address climate change impacts on traditional shellfish harvests and address food insecurity. Clams are a historically important subsistence food for the seven Tribes of the Chugach region, but their numbers have been in severe decline due to a number of factors including and exacerbated by climate change. This proposal will combine TEK about traditional clam harvests and current environmental observations with methodological beach surveys to map and identify suitable locations for clam gardens. The data and results will be used in a planning process for Tribes to build and maintain clam gardens to improve access to traditional foods and pass on important cultural practices.



Set-Aside 3: Relocation, Managed Retreat, or Protect-in-Place (RMP) Coordinator

RMP Coordinator awards are designed to support Tribes that have limited technical staffing capacity to hire a full time Coordinator for this purpose. This Coordinator will support and organize community involvement, coordinate with federal and non-federal partners, and develop community RMP plans and/or implementation actions. Awardees will have support to hire the RMP coordinator for up to three years, as well as first year cohort training for that Coordinator.

Number of Awards: 17

Amount Funded: \$2,104,467

Tribe:	Coquille Indian Tribe	Amount Funded:	\$147,749
Title:	Coquille Indian Tribe Climate Resilience Coordinator		

Project Description: The Coquille Indian recognizes that changes in climate have greatly impacted the Tribe's traditional and historical homelands. These changes have created a disproportionate impact on Coquille Tribal people and created an immense number of negative impacts that are directly related to Tribal member subsistence practices, cultural restoration and preservation, natural resources, future growth, and financial resources. The Tribe wishes to combat the negative impacts of climate change through creating a position that would be focused solely on mitigating specific climate change challenges that impact Southwest Coastal Counties (Lane, Coos, Curry, Douglas, and Jackson Counties). The Tribe wishes to combat the negative impacts of climate change through creating a position that would be focused solely on mitigating specific climate change challenges that impact Southwest Coastal Counties.

Tribe:	Fort Belknap Indian Community of the Fort Belknap Reservation of Montana	Amount Funded:	\$128,382
Title:	Aaniiih Nakoda Tribal Climate RMP Project 2024		

Project Description: The Fort Belknap Indian Community (FBIC), will address vulnerability to climate change impacts including planning and design of Relocation, Managed Retreat or Protect-in-Place (RMP) Coordinator Set-Aside project efforts in drought, wildfire and other climate-related prone areas. FBIC will hire a RMP Coordinator that will be designed to support FBIC's RMP project. The current state of risk for FBIC is in the highest risk tier and over the past year, climate change has exacerbated landscapes in the state of Montana reducing the number of freshwater resources that farmers and ranchers depend on to water their animals. The Fort Belknap Reservation is currently experiencing severe drought conditions which are known to greatly affect municipal water supply quality, grazing, farming, and livestock water/quality and also increase the risk of wildfires. Blaine County, in the state of Montana, is in severe drought conditions according to the U.S. Drought Monitor, in which 6,491 Montana residents in Blaine County are affected by Drought conditions.

Tribe:	Hoh Indian Tribe	Amount Funded:	\$150,000
Title:	Hoh RMP Coordinator		

Project Description: The leadership and citizenship of the Hoh Indian Tribe recognize climate resilience, health, and safety of its Reservation and community residents as the top priority and have taken strides to alleviate the immediate threat and engage others to assist. Specifically, the Project Coordinator to be hired will facilitate the completion of the Hoh Highlands Housing Project for the neediest families living on the Lower Hoh area of the Reservation and construction and infrastructure for community facilities. In addition, the Project Coordinator will facilitate planning the next phases of the project, maintain and establish partnerships, coordinate with staff and consultants, and identify and secure



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additional resources for the project. Funding will also go towards travel and the hiring of a RMP Assistant whose main duties will be to find resources to fund and plan the Hoh Highlands

Tribe:	Native Village of Kipnuk	Amount Funded:	\$115,233
Title:	<i>RMP Coordinator</i>		

Project Description: The Native Village of Kipnuk is located in Southwest Alaska approximately four miles from the Bering Sea Coast on a bend of the Kugkaktlik River. Riverbank erosion, flooding, and thawing permafrost due to climate change are impacting Kipnuk's infrastructure, homes, and the viability of the community as a whole. Due to the combined impacts of erosion, flooding, and permafrost thaw, Kipnuk is expected to implement a managed retreat by moving threatened infrastructure out of the hazard area, as well as protecting in place by mitigating ongoing riverbank erosion, repairing damaged foundations, replacing foundations, and replacing entire buildings and other infrastructure. The RMP Coordinator funded by BIA TCR will play a critical role in the coordination of assessments and implementation of projects and act as a liaison for the community.

Tribe:	Native Village of Kongiganak	Amount Funded:	\$112,810
Title:	<i>Kongiganak Traditional Council RMP Coordinator Adaptation project</i>		

Project Description: The Native Village of Kongiganak Permafrost Vulnerability Assessment and river erosion risk assessments were previously contracted to Bristol Engineers Consulting. The findings were identified in a final meeting where priorities were prioritized based on the Immediately Threaten Infrastructure to the community. This capacity building set aside project will hire an RMP Coordinator to plan a development of topically focused climate adaptation and attend resilience training. Establish the Structure Mitigation Plan. The Project will hire a full time Coordinator for the years project to coordinate with funding sources from the risk assessment completed for river erosion and permafrost thawing to address the high-risk assessments completed by the river erosion and permafrost thawing issues.

Tribe:	Native Village of Kwinhagak (aka Quinhagak)	Amount Funded:	\$121,494
Title:	<i>Adaptation Plan Support – Establishing an RMP Coordinator</i>		

Project Description: The Native Village of Kwinhagak (aka Quinhagak) along the Kanektok River on the east shore of Kuskokwim Bay in western Alaska, has encountered significant erosion and permafrost degradation over the past several years, threatening homes and infrastructure. Permafrost degradation is the greatest threat to infrastructure and Quinhagak is subject to both coastal and riverine erosion. The Kanektok River is continually cutting new channels through the process of erosion and accretion and coastal erosion is aggrading the mouth of the river, affecting access to the barge landing site, which is critical for fuel and supplies. Quinhagak has assessed the damages and is in various stages of planning and implementation to mitigate, repair, replace or relocate infrastructure and homes damaged by climate change, supported by an RMP Coordinator.

Tribe:	Native Village of Nunam Iqua	Amount Funded:	\$96,038
Title:	<i>Nunam Iqua Resilience Coordination Project</i>		

Project Description: The Native Village of Nunam Iqua is less than six miles from the ocean, located on a peninsula surrounded on three sides by the Yukon River near the coast of the Bering Sea. The community is experiencing erosion, flooding, permafrost degradation, sea level rise, and storms. The Tribe has not been previously funded for an RMP Coordinator position or any other BIA Tribal Climate Resilience grant. The Native Village of Nunam Iqua will hire a full-time Relocation, Managed Retreat, or Protect-in-Place (RMP) Coordinator to be the point of contact and work to build the capacity and resilience of the tribe through leadership engagement, delivery of data and tools, training, and tribal capacity building.



Bureau of Indian Affairs Branch of Tribal Climate Resilience FY 2023 Annual Awards Summary

Tribe:	Native Village of Shishmaref	Amount Funded:	\$150,000
Title:	<i>Native Village of Shishmaref Tribal Capacity Building and Adaption Planning: Local Coordinators</i>		

Project Description: The Native Village of Shishmaref will maintain the current Local Coordinator position and add an additional part-time coordinator position to prepare for and respond to environmental threats in the community of Shishmaref. Under the direction of the Shishmaref Site Expansion and Erosion Coalition (SSEEC), the Local Coordinator Assistant will assist the current Local Coordinator in leading all community planning communications related to coastal hazards with the goal of increasing local capacity to avoid a disaster. According to the 2019 Denali Commission Statewide Threat Assessment, which evaluated the relative level of threat to infrastructure from erosion, flooding, and permafrost degradation in all rural Alaska communities, Shishmaref is the second most threatened community in Alaska.

Tribe:	Native Village of Tuntutuliak	Amount Funded:	\$130,000
Title:	<i>Implementing Climate Resilience Strategies</i>		

Project Description: In 2022, NVT secured funding from the BIA Tribal Climate Resilience Program for a comprehensive permafrost risk assessment and hazard mitigation initiative. This 2023 project will increase NVT's capacity to implement those planning efforts by adding an RMP coordinator that has the experience and time to focus on improving the community's resilience and build on this past work. NVT plans to combine a literature review, elder interviews, community discussions, an engineering contractor's site visit, infrastructure evaluations, and a subsurface conditions examination as part of its implementation and project pre-development. The deliverable from this project will be a detailed permafrost vulnerability assessment report that includes as many as three project priorities that have been developed for future investment.

Tribe:	Native Village of Tununak	Amount Funded:	\$122,898
Title:	<i>Native Village of Tununak Coordination Project</i>		

Project Description: Tununak is facing threats from erosion, flooding, permafrost degradation, sea level rise, wildfires, and storms. The Tribe has not been previously funded for an RMP Coordinator position. The Native Village of Tununak will hire a full-time Relocation, Managed Retreat, or Protect-in-Place (RMP) Coordinator and a part-time RMP Assistant Coordinator. The RMP Coordinator will be the Point of Contact for all work related to Relocation, Managed Retreat, or Protect-in-Place and will work to build the capacity and resilience of the Tribe through leadership engagement, delivery of data and tools, training, and tribal capacity building.

Tribe:	Native Village of Unalakleet	Amount Funded:	\$89,112
Title:	<i>Unalakleet Tribal Climate Resilience Coordination Project</i>		

Project Description: Unalakleet is a high-risk community facing threats from intensifying coastal and riverine erosion, flooding, permafrost degradation, sea level rise, and storms. The Tribe has not been previously funded for an RMP Coordinator position. The Native Village of Unalakleet will hire a Relocation, Managed Retreat, or Protect-in-Place (RMP) Coordinator. The position will be full-time. The RMP Coordinator will be the Point of Contact for all work related to Relocation, Managed Retreat, or Protect-in-Place and will work to build the capacity and resilience of the tribe through leadership engagement, delivery of data and tools, training, and tribal capacity building.



Bureau of Indian Affairs
Branch of Tribal Climate Resilience
FY 2023 Annual Awards Summary

Tribe:	Nenana Native Association	Amount Funded:	\$135,684
Title:	<i>Nenana Native Association RMP Coordinator</i>		

Project Description: Nenana Native Association is a federally recognized remote tribe located in interior Alaska. The Tribe has no Relocation, Managed Retreat, or Protect-in-Place (RMP) Coordinator or program. The Tribe is surrounded by vast forest on the shores of the Tanana River. The Tribe depends on subsistence food and draw from the wisdom and teaching of their elders. Nenana Native Association has a strong tie to the Tribe's land and water. Increasingly, the Tribe is facing events instigated by a changing climate: burning wildland fires, more extreme storms leading to flooding and erosion, and sinking permafrost. The purpose of the project is to hire a full-time RMP Coordinator, and a part-time Resilience Planning Assistant, attend training events, coordinate the community's response to environmental threats by identifying the current needs and priorities of Nenana, and keep entities and the public informed of progress and challenges. The RMP Coordinator will serve as the central point of contact for local and external entities to respond to environmental threats and will collaborate with external partners and related manage grants. The project will build the Tribe's capacity to build resilience and capacity.

Tribe:	Northern Arapaho Tribe of the Wind River Reservation, Wyoming	Amount Funded:	\$150,000
Title:	<i>Northern Arapaho Protect-In-Place (RMP) Coordinator Three Year Position Set-Aside Project</i>		

Project Description: The Northern Arapaho Tribe will utilize the RMP Coordinator position to build critical capacity to develop a Climate resiliency plan. The position will also assist in the management of the implementation of all-hazard infrastructure needs.

Tribe:	Nunakauyarmiut Tribe	Amount Funded:	\$126,898
Title:	<i>Nunakauyarmiut Tribe Relocation, Managed Retreat, and Protect in Place Activities Coordination Project</i>		

Project Description: The Nunakauyarmiut Tribe is in Toksook Bay, Alaska, and Toksook Bay is facing threats from erosion, flooding, permafrost degradation, wildfires, and storms. The Tribe has not been previously funded for an RMP Coordinator position. The Nunakauyarmiut Tribe will hire a full-time Relocation, Managed Retreat, or Protect-in-Place (RMP) Coordinator and a part-time RMP Assistant Coordinator. The RMP Coordinator will be the Point of Contact for all work related to Relocation, Managed Retreat, or Protect-in-Place and will work to build the capacity and resilience of the tribe through leadership engagement, delivery of data and tools, training, and tribal capacity building.

Tribe:	Pueblo of Picuris, New Mexico	Amount Funded:	\$119,073
Title:	<i>Integrating Climate Resilience to the Emergency Response Plan at the Pueblo of Picuris</i>		

Project Description: The Pueblo of Picuris will hire an RMP coordinator, as the Tribe is imminently threatened by droughts, flash floods, hail, landslides, power failures, urban fires, wildfires, and winter storms. The Tribe's decision-making with respect to RMP Decisions is centralized in the Tribal council and its Governor, who together with the Lieutenant Governor constitutes "Incident Command". The community is already engaged in emergency management related efforts through its Emergency Response Plan; however, they are not supported by RMP staff. There is currently no staff member with the level of experience and expertise required for an RMP coordinator. The Emergency Response Plan requires the coordination of existing staff, but there is no office that is tasked with managing the plan or acting as an Office of Emergency Management to keep the Pueblo abreast and prepared in the field.



Bureau of Indian Affairs
Branch of Tribal Climate Resilience
FY 2023 Annual Awards Summary

Tribe:	Village of Kotlik	Amount Funded:	\$102,861
Title:	<i>Village of Kotlik Tribal Capacity Building and Adaption Planning: Resilience Coordinator</i>		

Project Description: The Village of Kotlik will hire and maintain a Resilience Coordinator under the BIA Tribal Climate Resilience Annual Awards Program: Relocation, Managed Retreat, or Protect-in-Place (RMP) Coordinator Set-Aside. The Resilience Coordinator is a key part of the success of community planning and projects intended to protect the community from imminent threats of erosion, flooding, and permafrost degradation as well as plan for future mitigation activities.

Tribe:	Wampanoag Tribe of Gay Head (Aquinnah)	Amount Funded:	\$106,235
Title:	<i>RMP Coordinator</i>		

Project Description: The Wampanoag Tribe of Gay Head (Aquinnah) is located on the island of Martha's Vineyard off the coast of Massachusetts. There is a direct need for planning support to assist the Tribe in the gathering and dissemination of information to make measured decisions regarding the future of Tribal property should sea level rise become a serious issue. To ensure that ecological resources as well as the critical infrastructure for the community are preserved, multiple assessments are needed (topography, storm dynamics, habitat, wildlife, wetland delineations, engineering, etc.) that can provide vital information for protection and long-term planning. Based on the results from these assessments an EIS can be created, and the Tribe can determine whether this section of critical road can be reinforced, moved further inland or if it must be abandoned. Once that determination has been made, long term restoration and management plans can be created in addition to implementing the best strategy for the long-term viability of the road. The addition of a Coordinator that focuses primarily on Relocation, Managed Retreat, or Protect-in-Place (RMP) activities will help us to complete planning and research to help us create a much-needed RMP plan.



U.S. Department of the Interior

President Biden's Bipartisan Infrastructure Law Supports \$45 Million Investment to Build Climate Resilience in Tribal Communities

Wednesday, November 2, 2022

124 awards will support 76 Tribes and 8 Tribal organizations to enhance preparedness, resilience, and ocean and coastal management planning

WASHINGTON—The Department of the Interior today announced a \$45 million investment in Tribal communities to address the disproportionate impacts of climate change. These Tribal Climate Resilience projects will support Tribes and Tribal organizations in adaptation planning, climate implementation actions, ocean and coastal management planning, capacity building, relocation, managed retreat, and protect-in-place planning for climate risks. Today's announcement is supported by \$20 million in funding from President Biden's Bipartisan Infrastructure Law and \$25 million from fiscal year 2022 annual appropriations.

...

The 124 awards will support 76 Tribes and 8 Tribal organizations and directly support additional Tribes through cooperative planning and shared information and tools. A summary of awards by Tribe, title, funded amount, and project description is provided on the Bureau of Indian Affairs (BIA) [Tribal Climate Resilience](#) website.

The Department held three Tribal consultations to inform implementation of the new funding from the Bipartisan Infrastructure Law. This year's awards include 17 for a new category that supports implementation of climate adaptation strategies, and 6 for a new category that supports implementation of community relocation, managed retreat, or protect-in-place actions.

Since 2011, BIA's Branch of Tribal Climate Resilience has awarded over \$120 million to Tribes and intertribal organizations for climate adaptation, ocean and coastal management, and community-driven relocation efforts.

The [Bipartisan Infrastructure Law](#) provides a total of \$466 million to the BIA over five years, including \$216 million for climate resilience programs. Of that funding, \$130 million is provided for community relocation, \$86 million is provided for Tribal climate resilience and adaptation projects, and \$43.2 million will be available to spend annually for five years. For more information on projects funded by the Bipartisan Infrastructure Law in Tribal communities through the BIA, visit the [BIA's interactive map](#).

**Bureau of Indian Affairs
Branch of Tribal Climate Resilience
2022 Annual Awards Summary**

Total Number of Awards: **Total Amount Funded: \$45,382,848.00**

Category 1: Trainings and Workshops

Category 1 awards support the design and hosting of regional or national tribal climate training(s) or workshop(s) that will assist tribal leaders, program coordinators, planners, and managers in developing the skills necessary to address climate change impacts by developing tribal adaptation plans, or management options, through in-person and webinar trainings and workshops.

Number of Awards: 10 **Total Amount Funded: \$1,327,057.00**

Tribe: Augustine Band of Cahuilla Indians **Amount Funded:** \$149,912.00

Title: Intergenerational Climate Stewardship Training Project

Project Description: The Intergenerational Climate Stewardship Training Project is part of the Augustine Band of Cahuilla Indians' vision for investing in intergenerational learning to support the integration of climate change scenarios to inform decision-making and sustain cultural and traditional resources and practices. The proposed project expands planning efforts set in motion by the development of Augustine's Adaptation Plan and has a multipronged approach that will not only support the Tribe but provide training and resources for other Tribes in the region.

Tribe: Big Valley Band of Pomo Indians **Amount Funded:** \$113,550.00

Title: Assessing Climate Change Impacts on Tribal Beneficial Uses in Ancestral Water bodies

Project Description: The purpose of this project is to generate the data and documentation required for the Regional Board to modify the water quality objectives that are protective of Tribal traditional usage. Pollution and water degradation have impacts on human health and the environment, and the current standards are based on tribal water use and exposure to environmental contaminants. As climate change impacts further degrade water resources in the Clear Lake watershed, the Tribe is committed to protecting the health, well-being and livelihoods of tribal members—which is dependent on water quality in the Clear Lake watershed.

Tribe: Chickasaw Nation **Amount Funded:** \$53,178.00

Title: Hosting a Tribal Adaptation Menu Workshop

Project Description: This project will develop and conduct a workshop to bring tribal managers together to learn what climate adaptation looks like and how to develop climate adaptation options. The first goal of this workshop will be to learn how to use the Tribal Adaptation Menu process in tribal projects. The second goal will be to learn about how tribes are being impacted by climate variability and changes. The third goal will be to discuss how the tribal team attendees' projects could use the menu framework to integrate climate and identify adaptation options.

Tribe: Manzanita Band of Diegueno Mission Indians Amount Funded: \$149,971.00
Title: Honoring Tribal Pathways for Land Stewardship

Project Description: The Manzanita Band of the Kumeyaay Nation plans to collaborate with the Climate Science Alliance (CSA) to build upon the 2019 and 2020 Manzanita Resilience Projects funded by Bureau of Indian Affairs Tribal Resilience Projects and CSA's Resilient Restoration project, funded by the California Strategic Growth Council's Climate Change Research Program <https://www.climatesciencealliance.org/resilient-restoration>. Manzanita's partnership with CSA will provide opportunities to bring an interdisciplinary team to support and address the Tribe's priority to protect Manzanita's natural and cultural resources with benefit for other Tribes in our region.

Tribe: Native Village of Kongiganak Amount Funded: \$136,413.00
Title: Kongiganak GIS Data Collection and Mapping Training

Project Description: The primary items for the Kong GIS Data Collection and Mapping Training project is to provide our GIS training program using one of our long-time consultants/contractors: IES. IES has a history using, and is highly experienced with, GIS. IES will add on to its license and obtain a multiple user license software package suite. This will allow IES to support Kong and help manage the databases our tribal technicians will create. The full training program will create many practice opportunities and the ability to learn data surveying, uploading to the database, analysis and creating maps from the data.

Tribe: Pala Band of Mission Indians Amount Funded: \$149,592.00
Title: Health-Centered Tribal Adaptation Training with Non-Climate Experts

Project Description: The Pala Band of Mission Indians (PBMI) Health-centered Tribal Adaptation Training with Non-Climate Experts Project will provide in-person and online health-centered adaptation trainings for Tribal leaders, program coordinators, planners, managers, and their partners across the country. PBMI and its large network of partners and trainees have seen firsthand that Tribal climate and health adaptation planning and management efforts can greatly benefit from the knowledgeable engagement and support of experts from emergency, medical, public health, psychology, planning, social services, and other fields relevant to health adaptation.

Tribe: Qawalangin Tribe of Unalaska Amount Funded: \$146,293.00
Title: Community Workshops on Food Security and Qaqamiigux

Project Description: The Qawalangin Tribe of Unalaska (QTU) proposes to host workshops focusing on conversations and knowledge sharing around the topic of climate impacts on the habitat, lifecycle, abundance, seasonality and distribution of priority subsistence fish and marine mammal species. We will seek input from climate science researchers and fish population modelers, then use this to guide conversations and develop a series of questions that can be used as roadmap for future research questions and adaptation planning.

Tribe: White Mountain Apache Tribe Amount Funded: \$143,147.00
Title: Tribal Climate Resilience Training and Workshops

Project Description: The White Mountain Apache Tribe (WMAT) plans to improve their capacity to improve climate change monitoring and to devise climate change adaptation strategies developed with input from the tribal community and stakeholders. WMAT natural resource programs will evaluate

appropriate data to identify and evaluate climate change impacts on the Fort Apache Indian Reservation while engaging with local TEK knowledge holders, federal and state agencies to develop varying type of media to educate the tribal community about climate change impacts.

Tribal Organization: Inter Tribal Council of Arizona, Inc. **Amount Funded:** \$142,063.00
Title: Adaptation Workshops and Trainings in an Evolving Southwest Climate

Project Description: ITCA has the goal of promoting American Indian self-reliance through public policy development, and to provide Member Tribes with the means for action on matters that affect them collectively and individually. ITCA proposes to organize, execute, and assess four workshops and one Tribal Leaders Water Policy Council focused on extreme climate events and the emerging environmental associated challenges using established partnerships with representatives from public universities and organizations in Arizona. These trainings and the council will focus on five different areas that are of prominent concern to Tribes in Arizona and will provide knowledge and resiliency tools aimed at adapting to climate related events.

Tribal Organization: Native American Fish and Wildlife Society **Amount Funded:** \$142,938.00
Title: Looking Forward, Looking Back: Strengthening Resilience Today

Project Description: The project proposes to strengthen individual and collective resilience by engaging a cohort of Alaska Tribal community, including leadership, environmental staff, and community members. This project would take the form of two trainings, a series of locally-held workshops, and a work session with Tribal leadership and partnering communities, designed to promote adaptation to Alaska's extreme events and environmental trends.

Category 2: Adaptation Planning

Category 2 awards support the development of adaptation plans, vulnerability assessments, and development of data analysis efforts (including supplementary monitoring) to address climate changes that impact tribal treaty and trust resources, economies, infrastructure, and human health and welfare.

Number of Awards: 27

Total Amount Funded: \$6,117,588.00

Tribe: Cherokee Nation

Amount Funded: \$245,037.00

Title: Development of Climate Action Resilience Plan

Project Description: Cherokee Nation will work with technical experts with climate mitigation and resilience experience to develop a Climate Action Resilience Plan. The plan will inventory emissions and help the tribe prioritize resilience actions for future implementation. Tribal citizens will be engaged in development of strategies and trained in the findings. The results will be used to inform future projects and make impactful climate response that will benefit Cherokee citizens across the Cherokee Nation Reservation in northeastern Oklahoma.

Tribe: Chickaloon Native Village

Amount Funded: \$182,335.00

Title: Climate Adaptation Implementation Plan

Project Description: This project will identify a range of climate adaptation and mitigation solutions and determine their general feasibility through a matrix of solution actions with relative degrees of cost, time, alignment with cultural priorities, and other criteria relevant to moving forward. The matrix will be presented in a written Adaptation Implementation document specifically to aid Tribal decision makers in prioritizing actions and efforts.

Tribe: Chickasaw Nation

Amount Funded: \$212,420.00

Title: Tribal Facility Climate Vulnerability Assessments

Project Description: This project aims to develop and conduct vulnerability assessments that will advance the Chickasaw Nation's (CN) capacity for both adaptation planning and resilience by focusing on climate change-related exposure within six key economic centers. Information from these vulnerability assessments will then immediately be incorporated into existing programs and operations within the CN, as well as used to develop new means of adaptation planning.

Tribe: Confederated Salish and Kootenai Tribes

Amount Funded: \$242,089.00

Title: Lifeways Approach to Climate Resilience

Project Description: The goal of the proposed project, CSKT Lifeways Approach to Climate Resilience, is to take our CSKT climate planning to the next level by making the 2022 Climate Plan a living document that weaves climate science and traditional knowledge in support of sector and cross-sector plans that incorporate climate planning and mitigation and adaptation actions. Four objectives support this goal: 1. Support tribal entities to implement the new CSKT Council Resolution on climate change planning and adaptation. 2. Train/mentor future Climate Resilience Warriors. 3. Highlight cross-sector climate mitigation and adaptation challenges and successes 4. Host community gatherings and Earth Day events

that encourage tribal and non-tribal members to learn and participate in climate resilience planning and actions at home, in their schools, and with others in their communities.

Tribe: Dry Creek Rancheria Band of Pomo Indians **Amount Funded:** \$249,275.00

Title: Alexander Valley RV Park and Campground Water Resource Climate Adaptation Plan

Project Description: The project proposes development of a vulnerability assessment, data analysis and gathering, and a water resources climate adaptation plan for an off rancheria campground property along the Russian River. Water resource actions to be addressed in the plan include restoration of the Campground Creek confluence with the Russian River through bank enhancement and bank enhancement on the Russian River along the Campground reach. The water resource climate adaptation plan will include an assessment of a portion of this area, water resource needs and conservation.

Tribe: Igiugig Village **Amount Funded:** \$145,882.00

Title: Adaptation Plan

Project Description: The Sovereign Native Village of Igiugig requests funding to expand on the Adaptation Assessment (2020) funded by a Bureau of Indian Affairs Tribal Resilience Program award in 2018 by creating an actionable plan to conduct habitat and environmental assessments on 'at-risk' species identified in the assessment. The project will create a plan addressing how to monitor extreme climate and environmental events that impact our health, resources, economy, and infrastructure, and identify mitigation measures necessary to protect culturally important habitats and infrastructure.

Tribe: Kaw Nation **Amount Funded:** \$250,000.00

Title: Climate Adaptation Planning for the Kaw Nation Climate Change Impact and Adaptation Plan on Sedimentation Of the Kaw Lake

Project Description: The main objective of this study is to identify the possible impacts of climate change by: Learning and utilizing tools used to make climate change predictions, meeting with an appointed Task Force to seek community input regarding water resources sensitivities to climate change, developing adaptation strategies, conveying these strategies to tribal leadership and the community. This project will utilize an approach developed by the Intergovernmental Panel on Climate Change (IPCC) for identifying a community's vulnerabilities to climate change, assessing potential impacts, and developing adaptation strategies.

Tribe: Ketchikan Indian Community **Amount Funded:** \$246,221.00

Title: Phase II: Reducing Environmental Risks to Ketchikan Traditional Resources with a Climate Adaptation Plan

Project Description: KIC tribal citizens recognize the risks of climate change and have identified the resources they found to be most important and most vulnerable to environmental changes through surveys KIC leadership conducted with BIA TCR Category 6 grant funds secured last year. This project builds on the success of that grant by soliciting additional survey responses (Objective 1), ranking identified natural resources according to both their environmental vulnerability and cultural/subsistence importance to the community with a vulnerability assessment (Objective 2), building capacity to respond to immediate climate mediated water quality risks through event-scale testing of Ketchikan Creek (Objective 3), and formalizing tribal priorities and long-term harm mitigation and adaptation strategies into a formal Climate Change Adaptation Plan (Objective 4).

Tribe: Klawock Cooperative Association Amount Funded: \$248,406.00

Title: Integrating Traditional Ecological Knowledge and Environmental Assessments into the Development of a Climate Adaptation Plan

Project Description: Central Council Tlingit and Haida Indian Tribes of Alaska (CCTHITA) has developed a Climate Adaptation Plan (CAP) template that outlines the common subsistence resources and potential climate change impacts. KCA will utilize the template to integrate community Traditional Ecological Knowledge (TEK) input and current environmental monitoring data to determine the adaptive capacity and vulnerability of key subsistence resources and develop strategies that ensure sustainable access to resources.

Tribe: Lower Brule Sioux Tribe Amount Funded: \$195,055.00

Title: Drought Vulnerability Assessment and Drought Adaptation Plan

Project Description: The Tribe will develop a Drought Vulnerability Assessment and Drought Adaptation Plan (DAP) for the Lower Brule Sioux Tribe (LBST). LBST will begin with a drought vulnerability assessment to identify specific vulnerabilities to drought, assess past drought occurrences, identify drought impacts on water resources on the Reservation, and identify the capacity of LBST to deal with future droughts. The DAP will identify drought response actions and mitigation strategies for the identified vulnerabilities. The final DAP will be used as a tool to identify and prioritize LBST responses before, during, and after drought.

Tribe: Native Village of Kipnuk Amount Funded: \$168,452.00

Title: Adaption Plan: Permafrost Risk Assessment

Project Description: This project will engage science and engineering consultants to complete a permafrost vulnerability assessment to forecast what infrastructure will be impacted, when, and support us in developing solutions to mitigate the threats. This project will form the foundation of our long-term adaptation plan, which will guide our effort to protect the safety, security, and sustainability of our community. It will benefit 100% of the residents in our small, remote, Tribal community.

Tribe: Native Village of Tuntutuliak Amount Funded: \$180,982.00

Title: Permafrost Risk Assessment and Hazard Mitigation Plan

Project Description: The Native Village of Tuntutuliak proposes to develop a permafrost vulnerability assessment to predict the future impacts of permafrost melt in the community and recommend solutions. This project will involve a desktop study of existing geological and geotechnical information, Elder interviews, community meetings, a site visit by the engineering contractor, a structural engineering assessment of threatened infrastructure, a field investigation into subsurface conditions, and the creation of a permafrost vulnerability assessment report complete with "fundable projects" for the chosen top three solutions.

Tribe: Nez Perce Tribe Amount Funded: \$242,946.00

Title: Climate Adaptation Plan

Project Description: The Nez Perce Tribe will produce a comprehensive and actionable adaptation plan that addresses current needs and builds upon ongoing management efforts, the most current climate

projections, and win wins for the climate and the economy. The ultimate goal of this work is to protect the Tribe's unique and enduring culture and treaty reserved rights and resources in a changing climate.

Tribe: Northern Arapaho Tribe of the Wind River Reservation **Amount Funded:** \$238,200.00

Title: Implementing Sustainable Wind River Reservation Tribal Climate Change All-Hazard Adaptation Plans for a Climate Change Ready and Resilient Community

Project Description: The Eastern Shoshone and Northern Arapaho tribes live in one of the most remote and vulnerable areas of the U.S. Both tribes have experienced increasingly frequent, extreme weather, including floods and droughts, with a marked increase in long-term Climate Change impacts occurring within our local environment, society and economy since 2010. A Climate Change Adaptation Plan (CCAP) will be critical for both tribes to aggressively prepare plans to meet the rapidly changing climate and extreme weather patterns affecting the Wind River Reservation.

Tribe: Ottawa Tribe of Oklahoma **Amount Funded:** \$243,114.00

Title: Watershed-Based Climate Action Plan for Tribal Lands in Northeast Oklahoma

Project Description: The Ottawa Tribe of Oklahoma puts great emphasis on preserving and protecting the characteristics, conditions, cultural elements, and resources that contribute to and sustain their vision for their Tribal communities. With the Ottawa Tribe of Oklahoma (Ottawa Tribe) as the lead, they are proposing to undertake adaptation planning, broken down into three tasks. This project would serve the Indian people of the seven Tribes. They propose to develop a climate adaptation action plan for tribal lands in northeastern Oklahoma to better prepare the Tribes for these changes.

Tribe: Pala Band of Mission Indians **Amount Funded:** \$224,539.00

Title: California Wildfire, Water, and Health Intertribal Resilience Data Development Project

Project Description: The Pala Band of Mission Indians' (PBMI) California Wildfire, Water, and Health Intertribal Resilience Data Development Project will develop and analyze wildfire-related illness and water supply datasets to help inform and advance multiple Tribes' climate vulnerability assessments and adaptation planning, decision-making, and monitoring efforts in California and across the United States. Building on previous successful projects, PBMI proposes to partner with California Tribal representatives, data scientists, and a broad network of advisors on an in-depth analysis of two high-priority data areas identified as critical to addressing the health and other climate change impacts to Tribal Treaty and Trust resources, but challenging to obtain and interpret: wildfire-related illness and water supply.

Tribe: Pueblo of Santa Ana **Amount Funded:** \$249,826.00

Title: Extreme Drought Adaptation Planning: Phases I and II, Data Analysis for Resilient Land Management

Project Description: The Pueblo of Santa Ana (Pueblo), proposes to conduct Phase II of a three-phase effort to develop an Adaptation Management Plan (Plan) to help the Pueblo mitigate and overcome the impacts of expected future extreme droughts to its resources, and, ultimately, to its cultural persistence.

Tribe: Red Lake Band of Chippewa Indians, Minnesota **Amount Funded:** \$247,686.00

Title: Development of Long-Term Mercury Monitoring Program Plan for Climate Adaptation

Project Description: This project will improve the ability of Midwest tribes to assess changes in mercury levels in fish and other culturally important species as well as ambient water concentrations with a focused effort on subsistence use of various fish species. The project will specifically increase the capacity for mercury monitoring and analysis related to climate change at Red Lake while providing a pilot effort to assess mercury for a partner tribe (Grand Portage Band of Lake Superior Chippewa) in order to reduce the cost of analysis. Mercury analysis is prohibitively expensive, and reducing costs for tribes will be beneficial to our collective ability to develop datasets which can be effectively used to monitor subtle changes in mercury levels over time that may be associated with climate change and that will most certainly affect the quality of subsistence fish species and the health of other culturally important species.

Tribe: Spokane Tribe of the Spokane Reservation **Amount Funded:** \$199,530.00

Title: Developing a Plan to Protect and Enhance Instream Flows in Blue and Sand Creeks

Project Description: The Spokane Tribe of Indians (STI) strives to sustainably manage our natural resources, which support tribal recreational, cultural, subsistence and economic activities. However, the impacts of climate change continue to make that effort more challenging. Our project focuses on developing a climate adaptation plan for actions that, if implemented, will build drought and climate change resiliency within two culturally significant watersheds on the Spokane Reservation, and support local Redband Trout and other salmonid populations.

Tribe: Summit Lake Paiute Tribe of Nevada **Amount Funded:** \$249,458.00

Title: Climate Adaptation Planning for Ecosystems and Community

Project Description: This project will help to complete a Climate Adaptation Plan, which will quantify and assess the impacts of climate on the ecosystem and community/infrastructure needs, on the Summit Lake Reservation and the surrounding watershed. The Summit Lake Paiute Tribe (SLPT) will develop a Climate Adaptation Plan (Plan) to build resilience and plan for future climate change. The SLPT will partner with the University of Nevada, Reno (UNR) and McBain Associates to fill knowledge gaps, project future climate scenarios, collect data and develop a Climate Adaptation Plan.

Tribe: Suquamish Indian Tribe of the Port Madison Reservation **Amount Funded:** \$250,000.00

Title: Simulating Outcomes of Actions into the Future

Project Description: Build climate adaptation for ecosystems and communities. The platform being developed will be used to assess the efficacy of strategies to protect stream and salmon health. The open knowledge network on the platform also facilitates sharing data and finding partners to collaborate with on other projects. Through those interactions, federal, county staff with Tribal communities, may learn the core traditional knowledge that is the key to addressing climate change and population growth pressures: the principals of respect, responsibility and reciprocity in the relationship between humans and the rest of the environment.

Tribe: Swinomish Indian Tribal Community **Amount Funded:** \$239,542.00

Title: Integrated Tribal Natural Resources Strategic Climate Policy and Resilience Plan and Integrated Natural Resources Climate Resilience Strategic Plan

Project Description: Swinomish's goal for this grant is to update the Swinomish Climate Change Initiative. They will build from it to develop a comprehensive integrated natural resources climate

resilience strategic plan that will address impacts of climate change to crucial Tribal resources in the terrestrial, freshwater and marine environments both on and off the Swinomish Reservation, including throughout most of the Tribe's adjudicated Usual & Accustomed area ("U&A"). The plan will bring together Tribal staff from across the natural and cultural resources departments to identify and rank strategic priorities for short and long-term climate adaptation goals and projects.

Tribe: Walker River Paiute Tribe **Amount Funded:** \$247,587.00
Title: Vulnerability Assessment for Drought Contingency Planning

Project Description: The Plan's purpose is, "To Protect our cultural and natural resources as well as the health and sustainability of our people in the face of climate change". The tribe will develop and implement strategies for long-term resource utilization, habitat protection and resources restoration to increase climate resilience.

Tribe: Washoe Tribe of Nevada and California **Amount Funded:** \$247,621.00
Title: Homeland Holistic Climate Adaptation Plan

Project Description: The Adaptation Plan will address certain natural resources, species, ecosystems and cultural issues that are extremely or highly vulnerable, across the Washoe homeland and build relationships for future co-stewardship efforts on any land jurisdiction.

Tribe: Yurok Tribe of the Yurok Reservation, California **Amount Funded:** \$209,773.00
Title: Marine Ecosystems Climate Adaptation Plan

Project Description: The Yurok Marine Ecosystems Climate Adaptation Plan project includes two primary components, the first being the creation of a formal Marine Program, which will be housed within the Yurok Tribe Environmental Department (YTED), and the second being the creation of the Marine Ecosystems Climate Adaptation Plan. The plan will utilize existing data and pull from prior climate adaptation plans, models, and projections, while also gathering community member input to identify priority areas and resources. The resulting plan will serve as a guiding document for the protection of marine ecosystems and resources in the face of global climate change, as well as outline future co-governance needs and strategies to ensure ongoing access to cultural resources as coastlines change.

Tribal Organization: Kawerak, Incorporated **Amount Funded:** \$247,698.00
Title: Climate Change Coordinator: Bringing safety, resilience, and quality of life to the remote Bering Straits Region

Project Description: This funding will be utilized to manage multiple aspects of the adverse consequences of climate changes through the new Coordinator position. This position will develop a cohesive approach for the entire region encompassing the current mitigation efforts and allowing adaptation planning to be assessed and shared among the communities. Traditional Knowledge and current specific insight will be collected through workshops and meetings to help villages understand climate change, address the impacts, and develop strategies for a local and regional Climate Change plan and handbook.

Tribal Organization: Kodiak Area Native Association **Amount Funded:** \$217,914.00
Title: Food Systems Vulnerability Assessment

Project Description: Kodiak Area Native Association (KANA) proposes to support the development of the Kodiak Food Systems Vulnerability Assessment (KFSVA). We are proposing to conduct a vulnerability assessment on both subsistence and locally grown food in Kodiak. The project will be exploring the importance of subsistence and native foods on the island, how they're harvested, and processed, how they are utilized for nutrition, their economic stability, and cultural and spiritual wellness. KANA will work with Kodiak Tribes and local experts to identify and prioritize vulnerabilities to both subsistence and locally grown foods in our region.

Category 3: Travel Support for Climate Adaptation Planning

Category 3 awards are designed to provide access to training and technical workshops that help maintain or build adaptation knowledge and skills for climate resilience. Awards support for tribal leaders and staff to attend training(s) or workshop(s) or to participate in cooperative resilience and adaptation efforts.

Number of Awards: 12

Total Amount Funded: \$163,342.00

Tribe: Alabama-Coushatta Tribe of Texas **Amount Funded:** \$13,812.00

Project Description: Proposed trainings/workshops/conferences: The travel and training, category 3 of the Tribal Climate Resilience Program will be utilized to provide employee(s) with funding to attend functions such as the National Tribal and Indigenous Climate Conference and the National and Southwest Adaptation Forums. Currently, the Alabama-Coushatta Tribe of Texas (ACTT) is exploring partners to achieve resilience and adaptation efforts, but the Tribe would like to have Tribal staff with the knowledge and education needed to progress with the Tribe's resilience and adaptation efforts. Additionally, if these conferences are not available, we will continue to explore opportunities to gain knowledge in the climate adaptation realm.

Tribe: Caddo Nation of Oklahoma **Amount Funded:** \$9,002.00

Project Description: Major purpose of this funding is to provide travel support and access for our tribal leaders and tribal staff to attend workshops, trainings, or meetings associated with building adaptation knowledge and skills for climate resilience to protect trust resources, infrastructure, human health, and tribal welfare. It is with funding opportunities like this that provides much needed assistance to Tribes that are lacking in areas of climate variability and change.

Tribe: Ketchikan Indian Community **Amount Funded:** \$14,999.00

Project Description: Ketchikan's Tribal Council has an organizational vision and strategic plan from 2018 through 2023. The plan is designed to ensure the prosperity of a culturally rich heritage and a thriving community of health and economically self-sufficient Tribal Citizens. The plan outlines pillars of 1) living our culture, 2) building a healthy tribe and citizens, 3) exercising our sovereignty, and 4) becoming economically self-sufficient. These pillars include protecting tribal values, identifying priority areas to direct resources, identifying citizen's needs, assuming responsibility for lands and programs, and utilizing and building up natural resources.

Tribe: Mashantucket Pequot Tribal Nation **Amount Funded:** \$8,924.00

Project Description: The Tribe has a mission statement and Strategic Plan consisting of (7) Strategic Objectives. The ultimate goal is to protect and advance the sovereign rights of the Tribal Nation in order to build and preserve a cultural, social, and economic foundation that can never be undermined or destroyed. 7 MPTN Strategic Objectives 1. Families within the Mashantucket Pequot Tribal Community will live healthier, longer lives. 2. Mashantucket Pequot Tribal Community will be kept informed regarding past, present, and future sovereign, governmental, social, cultural, and economic affairs. 3. Mashantucket Pequots will develop, enhance, and maximize their Human potential to establish and

achieve personal, community, and professional goals. 4. Mashantucket Pequot Tribal Nation pride will be promoted through social, historical, and cultural Unity. 5. Mashantucket Pequot Tribal Nation will preserve, protect, and advance our inherent natural resources. 6. Mashantucket Pequot Tribal Nation will preserve, protect, and advance our inherent sovereign rights. 7. Mashantucket Pequot Tribal Nation will sustain and grow our tribal economy. The training and travel will be used to Support Adaptation Planning.

Tribe: Native Village of Tuluksak	Amount Funded: \$14,856.00
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Project Description: Workshop meetings in Bethel on the multi-jurisdictional hazard mitigation planning. Tribal leadership will be informed of hazard mitigation planning development and how this may generate better grant applications. In addition, it allows leadership to develop working relationships with organizations and it provides a forum for the Unit 4 tribes to meet and discuss potential collaborations on disaster resilience. The strategic plan is the multi-jurisdictional hazard mitigation plan as approved by FEMA. Knowledge gained will assist tribal leadership in prioritizing local disaster resilience projects and subsequently seeking funding to address these priorities.

Tribe: Nez Perce Tribe	Amount Funded: \$12,853.00
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Project Description: National Tribal and Indigenous Climate Conference (NTICC): In 2022, the climate team had four abstracts accepted for presentations at the NTICC. This year the meeting is in Saint Paul and we plan to submit to present again. We are attending this event to support adaptation planning efforts and to meet funders, get implementation ideas, meet tribal members from across the country and get new ideas for adaptation options and implementation.

Tribe: Pueblo of Tesuque	Amount Funded: \$15,000.00
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Project Description: The intent of DENR is to restore resiliency of the land, minimize negative environmental impacts, and enhance the Tribe's capacity to prepare for, adapt to, and recover from climate change impacts. For the Pueblo of Tesuque, it is about being able to take what is needed to live today, without jeopardizing the ability of tribal members to meet their needs in the future. The tribe recognizes the need to plan for long term sustainability. DENR will develop a Vulnerability Assessment. DENR is seeking travel support for climate training to enhance our program and allow DENR to complete a Vulnerability Assessment.

Tribe: Qawalangin Tribe of Unalaska	Amount Funded: \$14,749.00
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Project Description: The Qawalangin Tribe of Unalaska is pleased to support a project for Tribal staff to travel to Alaska Tribal Conference on Environmental Management. This even will provide the opportunity to network with tribal environmental professionals from agencies and other non-governmental organizations. This event provides important networking opportunities for communicating our tribe's current work on climate adaptation planning with our peers and partners throughout the state, while building our network of resources we can draw on the strengthen our planning efforts and provide a strong voice in statewide climate adaptation planning to address extreme events and harmful environmental trends.

Tribal Organization: Affiliated Tribes of Northwest Indians	Amount Funded: \$14,997.00
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Project Description: Travel funding will allow the Tribal Leaders, Tribal citizens, and staff from ATNI member Tribes and/or ATNI staff to the 2023 National Tribal Leadership Climate Change Summit or similar meetings. This event is part of an annual ongoing series that has been collaboratively organized by ATNI and the National Congress of American Indians (NCAI). The objectives of the Summit are to: 1. Convene ATNI and National Tribal leaders to educate, inform, and discuss climate impacts and climate adaptation planning/capacity; 2. Share Tribal strategies, best practices, adaptation planning efforts, policy on climate change, energy, and carbon emissions; and 3. Discuss, identify, and coordinate Tribal and intertribal consortia actions related to regional, and national policy; discuss Tribal climate change resource needs.

Tribal Organization:	Chugach Regional Resources Commission	Amount Funded: \$14,966.00
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Project Description: Funding will be for attending specific workshops, trainings, technical sessions, or working group meetings CRRC believes will provide valuable training, education, and networking opportunities for staff, enhancing CRRC's climate change adaptation and resilience program. This travel funding will allow CRRC staff to attend training and events related to tribal climate change leadership and build staff expertise in resilience and adaptation planning. The Forums may gather the adaptation community to foster knowledge exchange, innovation, and mutual support for a better tomorrow. Forums include opportunities for professional development through formal training sessions, facilitated practitioner presentations, and informal exchange of information in the form of in-person gatherings and online.

Tribal Organization:	Kawarek, Incorporated	Amount Funded: \$14,840.00
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Project Description: Major purpose of this funding is to provide travel support and access for our tribal leaders and tribal staff to attend workshops, trainings, or meetings associated with building adaptation knowledge and skills for climate resilience to protect trust resources, infrastructure, human health, and tribal welfare. It is with funding opportunities like this that provides much needed assistance to Tribes that are lacking in areas of climate variability and change.

Tribal Organization:	Native American Fish and Wildlife Society	Amount Funded: \$14,344.00
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Project Description: Travel support will be used to attend a Climate Science Alliance Presentation & Conference, Geospatial Modeling-Climate Adaptation Planning and Community Engagement-Climate Change in 2023. As the weather continues to change and the SW region is experiencing severe drought, we would have sessions include topics on how to deal with the increasing heat, drought and how plans for adaptation need to be implemented. It's important for our Society to address how our fish, wildlife is adapting to these extreme changes.

Category 4: Ocean and Coastal Management

Category 4 awards support ocean and coastal management planning, marine spatial planning, coastal adaptation/resilience analysis, and cooperative marine resource plans. Funding builds tribal capacity and can be used to assist with a tribe's efforts to restore and provide resilience of coastal resources, perform inventories or vulnerability assessments, identify monitoring protocols and critical indicator species, or implement a unique pilot study or project that would advance tribal resilience, adaptation, or ocean and coastal management knowledge.

Number of Awards: 11

Total Amount Funded: \$1,730,839.00

Tribe: Lummi Nation

Amount Funded: \$146,049.00

Title: Baseline Assessment of Larval and Juvenile Dungeness Crab in Lummi Nation's Tidelands and Nearshore Environments

Project Description: This project aims to create a baseline survey of juvenile and larvae Dungeness crab distribution and abundance in Lummi's tidelands and nearshore waters. The results will enhance our understanding of local larval and juvenile crabs, increase our planning capacity and ability to recognize dynamic impacts from threats, and allow us to further contribute to the co-management of adult Dungeness crab fisheries. This is an immensely important natural resource to the Lummi People who rely upon its availability to support fishing opportunities.

Tribe: Native Village of Kivalina

Amount Funded: \$249,815.00

Title: Community Coordination and Additional Adaptation Planning for Expansion

Project Description: Funding will be used over a 24-month project period to employ a Community Coordinator, Bookkeeper, and solicit support from a professional engineering firm. Kivalina is one of the most threatened communities in Alaska due to severe and persistent erosion, flooding, and permafrost degradation. To mitigate these threats and sustain the traditional way of life, the community has decided to proceed with an expansion by relocating threatened infrastructure, protecting other infrastructure in place, and developing a new additional community area on safer ground. The Community Coordinator will continue to advance the community's adaptation vision and specific expansion efforts.

Tribe: Qawalangin Tribe of Unalaska

Amount Funded: \$145,618.00

Title: Ocean and Coastal Environmental Monitoring Plan

Project Description: We propose to write a planning document "Qawalangin Tribe of Unalaska Ocean and Coastal Environmental Monitoring Plan". The need for a monitoring program is identified in both our EPA Tribal Environmental Plan (ETEP) and our recently updated Climate Adaptation Plan. We will synthesize existing documents and input from our community working group to determine priority focus areas for which we will research existing tools and methods and develop a plan for future implementation of monitoring protocols to address Tribe priorities.

Tribe: Saint Paul Island

Amount Funded: \$250,000.00

Title: ITEK Data Analysis

Project Description: The project addresses the need for Alaska Native tribes and rural communities to properly assess and measure the impact of environmental changes on their communities. St. Paul Island is undergoing extremely high rates of coastal erosion and increased impacts from storms and flooding. The goal of the project is for the tribe to continue to expand climate change considerations with the development of data analysis efforts through supplemental monitoring and product development to enhance our draft adaptation plan for tribal community flood and coastal erosion mitigation. The product of the project will be continued data and information gathering and updated Tribal adaptation and mitigations plans will be updated with new data analysis recommendations and Traditional Ecological Knowledge.

Tribe: Samish Indian Nation

Amount Funded: \$116,637.00

Title: Cultural Resources Survey and Monitoring Plan in the Face of Climate Change

Project Description: This project is a continuation of the ongoing Samish Adaptation and Resilience Initiative and builds on the work completed by our Ocean and Coastal Management Planning Sea Level Rise work. It also supports our overall climate Adaptation and Resiliency planning efforts that have been completed over the last 6 years. Surveying, protecting, and monitoring cultural resources has been specifically identified as a priority under our Phase 3 efforts and this project will fulfill that goal. Objectives are as follows: Perform Samish Territory-Wide Archeological survey of shoreline locations, Gather detailed locational data of cultural sites at risk to sea level rise, Increase capacity to interface with partners and resource managers in the region on regulatory actions and coastal management projects/initiatives, Inform future evaluation and prioritization of coastal adaptation strategies and actions including potential beach restoration sites, Develop a monitoring plan for at risk locations so that cultural artifacts or ancestral remains may be recovered if needed, increase the overall knowledge of cultural sites by sharing data with Washington State's regulatory agency, DAHP.

Tribe: Santa Ynez Band of Mission Indians

Amount Funded: \$125,540.00

Title: Co-management Adaptation Plan to Support Climate Resilience for the Proposed Chumash Heritage National Marine Sanctuary

Project Description: The goal of this proposed project is to produce an adaptation plan for ocean and coastal ecosystems associated with the proposed CHNMS. The project will contribute to a co-management approach to adaptation planning that supports social engagement between the Chumash, California and Federal resource agencies, and other partners (including members of the scientific community and non-governmental conservation organizations). The proposed development of a "Co-management Adaptation Plan" will focus on the role of the Chumash Traditional Ecological Knowledge (TEK) and scientific information in climate adaptation to improve and strengthen plans for coastal and marine life protection associated with the proposed CHNMS.

Tribe: Tolowa Dee-ni' Nation

Amount Funded: \$146,688.00

Title: Xaa-wvn'-taa-ghii~li~ (Smith River) Hydroacoustic Lhuk (Salmonid) Adult Enumeration and Species Apportionment

Project Description: The Tolowa Dee-ni' Nation, Natural Resources Department Fisheries Division seeks support to continue baseline population monitoring critical to assessing the status of trust lhuk (salmonid) species in the Smith River. The Nation is the original steward of the Smith River Plain, coast and surrounding marine environment; which is the primary provider of sustenance and wellbeing for Tolowa dee-ni' (people). Over the past several years TDN has become a leader in Smith

River fisheries monitoring and advocacy; and in 2021-2022 the Division initiated a long-term project to collect baseline data for adult salmonids returning to the Smith River annually with support from the BIA Tribal Resilience Program.

Tribe: Tulalip Tribes of Washington **Amount Funded:** \$149,891.00

Title: Monitoring Changing Ocean Conditions and Effects on Critical Species, Building Sovereign Management, Planning, Training, and Partnerships

Project Description: The Tulalip Tribes propose to utilize work and program coordination to continue making progress toward establishing a self-sustaining, annual Puget Sound Juvenile Fish and Herring Monitoring Program that also includes a stronger training element and more partners. The goal is to improve our understanding of relationships between climate, prey availability and early marine growth and survival of juvenile salmon and herring. Through this project and the three previous years' awarded funds, we are making major progress toward developing a collaborative Puget Sound Offshore Marine Fish Sampling Program with other Puget Sound Tribes, federal, state and local fisheries management agencies, non-profits and academic institutions in the region.

Tribe: Yakutat Tlingit Tribe **Amount Funded:** \$113,830.00

Title: LiDAR Study to Advance Tribal Climate Resiliency

Project Description: The goal of this project is to complete the first of three phases of our overall project: Advancing Tribal Climate Resiliency in Yakutat. Phase One: Data Collection using LiDAR mapping technology. LiDAR systems allow scientists and mapping professionals to examine natural environments with extreme accuracy, precision, and flexibility. LiDAR does this by collecting data from forest canopies to the surface of the earth and creates a 3D data display of the environment. Phase Two: Vulnerability Study of the Yakutat Forelands and Surrounding Areas and Phase Three: Advancing Tribal Climate Resiliency through Restoration and Protection.

Tribal Organization: Kodiak Area Native Association **Amount Funded:** \$240,917.00

Title: Coastal and Freshwater Monitoring Assessment

Project Description: Kodiak Area Native Association (KANA) proposes to support the development of a Cohesive Kodiak Coastal and Freshwater Monitoring Assessment and pilot program under Category 4: Ocean and Coastal Management. The proposed project seeks to conduct a coastal and freshwater monitoring assessment in the Kodiak region, hold a regional workshop, support a pilot program for freshwater monitoring for three Kodiak tribes and create a freshwater quality monitoring guidebook to increase monitoring in the Kodiak region. Overall, connecting coastal and freshwater to gather more climate change data and to evaluate the vulnerability of returning salmon species.

Tribal Organization: Point No Point Treaty Council (PNPTC) **Amount Funded:** \$145,854.00

Title: Climate Vulnerability Assessment of Estuary Restoration Efficacy with Changing Climate Patterns: Linking Estuary and Hydrologic Climate Models by Incorporating Streamflow Regime Change and Sea Level Rise

Project Description: This project is focused on enhancing the Tribes vulnerability assessments by filling in important data gaps needed by this pilot study that links stream flow and sea level rise models which directly impacts their Tribes' finfish, shellfish and wildlife resources, and to help to assess any possible impacts to the future management of our shared Treaty-protected resources. The Tribe hopes to

coordinate throughout the Western Washington region not only among their own tribal communities but also with other tribes and outside agencies on the resource management adaptation and conservation, and to offer new ways to think about, and otherwise prepare for climate resilience and adaptation, especially as they look at flooding events in estuarine and riverine areas, its impacts to ESA species, their habitats, and the Tribal people in their region.

Category 5: Travel Support for Ocean and Coastal Management

Category 5 awards are designed to support travel for tribal leadership or staff participation in, coordination, or training for interagency ocean and coastal spatial planning, including the Great Lakes. They provide support for tribal representatives to attend organizational meetings, working sessions, or official meetings of: Regional Ocean Partnerships (ROP), technical workshops or trainings, or targeted pilot studies or projects.

Number of Awards: 4

Total Amount Funded: \$57,336.00

Tribe: Qawalangin Tribe of Unalaska	Amount Funded: \$14,660.00
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Project Description: These funds will support Tribal staff to travel to the Alaska Marine Science Symposium and the Alaska Forum on the Environment. These events are expected to occur in winter of 2023 and will provide the opportunity to network with tribal environmental staff, researchers, and other environmental professionals from agencies and other non-governmental organizations focused on a wide range of research topics and projects addressing coastal and ocean management, among other topics. These two events are each important networking opportunities for communicating our tribe's current work on developing a coastal and ocean management planning program, while building our network of resources we can draw on the strengthen our planning efforts.

Tribe: Wrangell Cooperative Association	Amount Funded: \$14,714.00
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Project Description: This application is on behalf of the Wrangell Cooperative Association, a federally recognized Tribal government in Wrangell, Alaska. Travel participants will be permitted to participate in invaluable environmental training and collaborative opportunities that this funding would make possible for them to consider in FY2023. Collaboration is even more important in Southeast Alaska, where communities are cut off geographically, often without road access to other communities, and serviced by lessening ferry service every year. WCA and WCA IGAP participants can act as bridges to pool efforts and solutions for regional ocean and coastal issues for surrounding communities.

Tribal Organization: Chugach Regional Resources Commission	Amount Funded: \$13,618.00
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Project Description: The Alutiiq Pride Marine Institute (APMI) is a division of the Chugach Regional Resources Commission (CRRC). The APMI is in Seward, Alaska. The APMI focuses its research on species development, including the California sea cucumber, red king crab, blue king crab, butter clams, pinto abalone, purple-hinged rock scallops, razor clams, little-neck clams, cockles, and kelp. The APMI has quickly become a leader in ocean acidification research across Alaska and through The Alaska Ocean Observing System co-chairs the Tribal Working Group of the Alaska Ocean Acidification Network. The APMI is committed to providing travel support for staff and partners as well as additional ocean and coastal spatial planning opportunities to our staff.

Tribal Organization: Native American Fish and Wildlife Society	Amount Funded: \$14,344.00
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Project Description: The travel supports tribal representatives from across the US and Alaska to attend the national conference. They will be able to build their knowledge on the impacts of Ocean and Coastal Management and come away with some solid ways to deal with and remedy impacts to their tribal

lands. Entire tribal communities are having to move from the rising waters that affect their homes and tribal communities. Those attending have a real commitment to working on climate change issues. Participants will include tribal employees and leaders that work on these issues. Information will be gathered and taken home to be shared; all be provided with necessary resources for their specific regions.

Category 6: Capacity Building

Category 6 awards support tribes with limited technical and staffing capacity to carry out risk scoping activities that can lead to more detailed future adaptation planning proposals. The effort highlights risks and options that may support ways to begin to plan and build greater capacity for resilience, particularly by identifying tribal vulnerabilities and adaptation planning needs. Tribes in this category have not previously received larger awards in award years 2014 through 2020.

Number of Awards: 4

Total Amount Funded: \$257,842.00

Tribe: Alabama-Coushatta Tribe of Texas	Amount Funded: \$64,876.00
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Project Description: The Alabama Coushatta Tribe of Texas (ACTT) has first-hand knowledge of the impacts from climate-related natural disturbances such as hurricanes, tornadoes, wildfires, etc. as we have experienced these occurrences in the previous years. The ACTT understands there is a need to be better aware and prepared for such events to protect the lives, property, and values of our community. In addition to travel and training funding under the Tribal Climate Resilience Program (TCRP), we feel as the Capacity Building funding will provide the foundation for future TCRP endeavors by gathering data/information on climate related issues from the past to the present and for the future, consulting with other Tribal departments (emergency management, education, youth programs) to express their concerns and how the TCRP can assist those programs.

Tribe: Miccosukee Tribe of Indians of Florida	Amount Funded: \$65,000.00
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Project Description: The Miccosukee acknowledges climate change but our ability to adapt is currently limited. Formally identifying climate change risks and vulnerabilities are crucial first steps to ensure the perpetuation of the tribe and their resources for present and future generations. The Miccosukee Tribe of Indians of Florida is requesting funds to hire part time staff to develop a general scoping needs assessment and ultimately a climate adaptation grant proposal through the U.S. Department of the Interior – Bureau of Indian Affairs – Branch of Tribal Climate Resilience Annual Awards Program. Currently, we have limited technical and staffing capacity to develop a general scoping needs assessment and climate adaptation grant proposal.

Tribe: Wrangell Cooperative Association	Amount Funded: \$62,966.00
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Project Description: Wrangell Cooperative Association (WCA) tribal citizens are at the forefront of climate change. Alaska is warming at more than twice the rate of the contiguous United States. The warming combined with its associated weather and ecological changes and ocean acidification threatens the traditional food and cultural resources that tribal citizens depend on. To respond to the risks of climate change and mitigate the harms and hardships it will cause to the local environment and tribal citizens, WCA is working towards a long-term, comprehensive Climate Adaptation Plan. Throughout this process, WCA will leverage its partnerships with the Southeast Alaska Tribal Ocean Research network and Ocean & Earth Environmental to learn from the expertise of Southeast Alaskan tribal governments who are also working on Climate Adaptation Plans, allowing us to build both a regional and local understanding of climate risks.

Category 7: Relocation, Managed Retreat and Protect-in-Place Planning

Category 7 awards support tribes facing questions and decisions regarding managed retreat, expansion, protect-in-place, and relocation options due to climate threats from intensifying coastal or riverine erosion, flooding and permafrost degradation impacts, sea level rise, and similar impacts.

Number of Awards: 12

Total Amount Funded: \$3,041,368.00

Tribe: Karuk Tribe

Amount Funded: \$271,299.00

Title: Aráiriik- Karuk Climate Resiliency Facility Plan

Project Description: Aráiriik will be a Climate Resilience Center for the Karuk Tribe located in the rural community of Orleans, CA. Aráiriik means “one’s relatives place” or a village, and this will be its function for the Karuk community. The Tribe will use consultants to perform required planning studies and a formal design process. The Karuk Department of Natural Resources (KDNR) will initiate the project by hosting events and workshops to build Tribal community support and ensure the Center meets the needs of this community. The Center is identified in the Tribe’s Climate Adaptation Plan as an asset needed to support training, implementation, and workforce development.

Tribe: Kenaitze Indian Tribe

Amount Funded: \$230,354.00

Title: Kalifornsky Village Graveyard Assessment

Project Description: Kenaitze is seeking funding from the Bureau of Indian Affairs (BIA) Branch of Tribal Climate Resilience (TCR) to plan appropriate mitigation options for the rapidly eroding coastal bluffs upon which the Kalifornsky Village graveyard was historically placed. Grant-funded activities will result in the documentation of plan options to preserve approximately seventeen (17) ancestral gravesites precipitously close to the cliff edge facing Cook Inlet; these options could include protect-in place actions, relocation of affected gravesites, or other possible approaches to preserve the remains of these Kenaitze ancestors.

Tribe: Makah Indian Tribe of the Makah Indian Reservation

Amount Funded: \$300,000.00

Title: Relocation and Resilience Master Plan

Project Description: The Makah Tribe is located in Neah Bay, Washington on the remote northwestern tip of the Olympic Peninsula. The Makah Tribe's critical infrastructure, including schools, government operations, healthcare, and homes, is increasingly threatened by climate change-driven sea level rise, erosion, storm surge, and seasonal flooding. Additionally, all the Tribe's critical infrastructure sits within the Tsunami Inundation Zone and the Reservation is adjacent to the Cascadia Subduction Zone, capable of producing a magnitude 9.0 earthquake. Relocation planning that integrates the compounding risks of climate change and extreme events is a critical need identified by the Tribal Council and highlighted in our ongoing climate resilience work.

Tribe: Native Village of Kipnuk

Amount Funded: \$245,056.00

Title: Adaption Plan: Riverine Erosion and Flood Assessment

Project Description: This project will engage science and engineering consultants to complete a long-term erosion and flood assessment to forecast what infrastructure will be impacted, when, and support

us in developing solutions to mitigate the threats. This project will form the foundation of our long-term adaptation plan, which will guide our effort to protect the safety, security, and sustainability of our community. It will benefit 100% of the residents in our small, remote, Tribal community.

Tribe: Native Village of Saint Michael **Amount Funded:** \$148,432.00

Title: Permafrost Risk Assessment

Project Description: The Native Village of Saint Michael, Alaska is among one of the most vulnerable to climate change impacts in the entire United States. Increasingly severe natural hazards threaten critical community infrastructure and jeopardize the health, safety, and prosperity of our community. Specifically, permafrost degradation impacts residential homes, two cemeteries, the school, the Tribal office building, and others in the near-term and nearly every building in the community in the long-term. This project will engage science and engineering consultants to complete a permafrost vulnerability assessment to forecast what infrastructure will be impacted, when, and support us in developing solutions to mitigate the threats.

Tribe: Native Village of Tuntutuliak **Amount Funded:** \$236,374.00

Title: Near-Term Erosion Risk Assessment

Project Description: The Native Village of Tuntutuliak respectfully seeks \$236,374 to hire an engineering contractor to develop a near-term riverine erosion risk assessment to predict future impacts in the community and recommend solutions. This project will engage science and engineering consultants to complete a long-term erosion and flood assessment to forecast what infrastructure will be impacted and when the impact will occur, as well as support in developing solutions to mitigate the threats. This project will form the foundation of the community's long-term adaptation plan, which will guide efforts to protect the safety, security, and sustainability of the community.

Tribe: Native Village of Unalakleet **Amount Funded:** \$290,440.00

Title: Managed Retreat Housing Prototype Planning

Project Description: The community of Unalakleet, Alaska, is planning a managed retreat from the current site on the shoreline of Norton Sound to a nearby hillside area in response to recent flooding and erosion caused by sea-level rise. The most recent statewide threat assessment report designates Unalakleet as the eighth-most at-risk remote community in the state; it is threatened by coastal erosion, flooding, and permafrost degradation (Denali Commission 2019). This project will be a collaboration between NVU and the National Renewable Energy Lab's Cold Climate Housing Research Center (CCHRC-NREL) in Fairbanks, Alaska.

Tribe: Nez Perce Tribe **Amount Funded:** \$275,990.00

Title: IYÁLIPÁZIKT (Flood) Resilience Planning Project

Project Description: The Tribe is applying for funds under Category 7 to purchase equipment and support staff time necessary to expand flood planning efforts for tribal communities, including Kamiah, Stites, and Kooskia, Idaho. Extreme events, including floods fueled by fire-scorched hillsides and extreme precipitation, have caused mudslides, road closures, damage to housing and other infrastructure, disaster declarations, and threats to reservation communities. Critical infrastructure, including transmission and power lines, communication lines, roads, bridges, fish hatcheries, fish acclimation facilities, and housing are at risk of flooding in these riverine communities.

Tribe: Sitka Tribe of Alaska **Amount Funded:** \$298,463.00

Title: Supporting the Southeast Alaska Tribal Ocean Research network with the development of Protect-in-Place Plan for the Sitka Tribe of Alaska Environmental Research Laboratory

Project Description: Coastal Alaskan tribes face a variety of urgent environmental threats, including ocean acidification, harmful algal blooms, shellfish biotoxins, and climate change. To address those threats on a large scale, the Sitka Tribe of Alaska (STA) developed the STA Environmental Research Laboratory (STA-ERL) to support the Southeast Alaska Tribal Ocean Research (SEATOR) partnership, a network of tribal governments in Southeast and Southcentral Alaska. SEATOR partners are currently collecting paralytic shellfish toxin and harmful algal bloom data at key community beaches accessed by subsistence harvesters.

Tribe: Tuluksak Native Community **Amount Funded:** \$245,056.00

Title: Riverine Erosion and Flood Assessment

Project Description: This project will engage science and engineering consultants to complete a long-term erosion and flood assessment to forecast what infrastructure will be impacted, when, and support us in developing solutions to mitigate the threats. This project will form the foundation of our long-term adaptation plan, which will guide our effort to protect the safety, security, and sustainability of our community. It will benefit 100% of the residents in our small, remote, Tribal community.

Tribe: Village of Chefornek **Amount Funded:** \$298,517.00

Title: Permafrost Risk Assessment and Tank Farm Design

Project Description: This project will engage science and engineering consultants to complete a permafrost vulnerability assessment to forecast what infrastructure will be impacted, when, and support us in developing solutions to mitigate the threats. This project will form the foundation of our long-term adaptation plan, which will guide our effort to protect the safety, security, and sustainability of our community. It will benefit 100% of the residents in our small, remote, Tribal community.

Tribal Organization: Chugach Regional Resources Commission **Amount Funded:** \$201,387.00

Title: Managing Coastal Armoring and Seawater Availability at the Alutiiq Pride Marine Institute

Project Description: Chugach Regional Resources Commission (CRRC) is facing questions and decisions regarding protect-in-place options due to threats from intensifying coastal erosion and flooding. CRRC will assess and create an armoring solution for coastal property housing a statewide facility asset in a flood zone. The project will protect the State of Alaska's only mariculture technical center and Tribally owned shellfish hatchery that is facing negative impacts from climate variability which is causing more flooding events at the project location than mapped or predicted. Protecting the organization's division, the Alutiiq Pride Marine Institute (APMI) from coastal erosion and flood events will protect the species cultured inside the facility (razor clams, purple hinged rock scallops, pinto abalone, geoducks, littleneck (steamer) clams, softshell clams, butter clams, oysters, cockles, and chiton (bidarki), red and blue king crab, sea cucumbers, and kelp) and the adjacent essential fish habitat for all five species of salmon.

Category 8: Internships

Category 8 awards are designed to support college students, or recent graduates (within one year of at the start of the internship), employment opportunities working within tribal programs or tribal organizations. Internships support integration of tribal climate adaptation planning or ocean and coastal management into programs for the benefit of Tribes.

Number of Awards: 5 **Total Amount Funded: \$249,686.00**

Tribe: Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians **Amount Funded:** \$49,985.00
Title: Solar Energy Internship Application

Project Description: CTCLUSI's Leadership acknowledges a need for enhancing understanding around renewable energy, and building internal capacity to implement climate resilience programs and projects. The express goal for CTCLUSI is to build internal capacity with a well-rounded level of understanding on all types of renewable energy, with an emphasis on solar education and training. A funded intern will contribute to achieving CTCLUSI's energy resilience mission by supporting education and project development activities under the direction of the education department's Education specialist, Eriq Acosta.

Tribe: Nez Perce Tribe **Amount Funded:** \$49,735.00
Title: Internship Program for Climate Change Communications, Education and Planning

Project Description: We are applying for funding to support a climate change communications intern to fill the need for better communications strategies for sharing information regarding climate change impacts, the result of the vulnerability assessment, climate solutions, and documenting traditional ecological knowledge and how climate change is affecting traditional culture, species, habitats, and community members for future generations. During the Covid-19 pandemic, we recognized the need for modern communications beyond print media. This includes a better website to more efficiently and effectively disseminate information, education for tribal members about the amazing work of Tribal staff, and recording elders who are knowledgeable about climate impacts.

Tribe: Red Lake Nation **Amount Funded:** \$50,000.00
Title: DNR Wild Rice Climate Change Impact Monitoring

Project Description: Climate change is fundamentally changing the way in which tribal programs at the RL DNR approach natural resource management. For the Water Resources Department we have begun to introduce a working plan to begin monitoring our wild rice resources. Wild rice, or Manoomin, is culturally vital to the people of Red Lake in many ways. From the origins of the migration story for the Red Lake people to its inclusion in nearly every ceremonial feast wild rice is integral to the past, current and future identity of the people. The RL DNR is currently developing a working plan for the monitoring of the wild rice resources for the people of Red Lake.

Tribal Organization: Affiliated Tribes of Northwest Indians **Amount Funded:** \$49,966.00
Title: Two Tribal Interns to Increase Tribal Resilience

Project Description: This proposal would fund 2 tribal citizens as interns in 2022-23. ATNI hosted 5 tribal citizens as interns in 2021-2022, 3 interns in 2020, 6 interns in 2017, & 5 in 2016. Our 2020 interns co-

authored 3 peer reviewed publications with our team. The two interns funded by this grant will work with our Sr. and Asst. Tribal Liaisons to increase Tribal resilience to climatic impacts through adaptation. Interns will work on efforts aligned with their interests that align with our climate resilience program. Our interns will help to build ATNI's network of partners; plan Tribal climate events; participate in site visits to Tribes involved in climate projects, develop skills in Tribal relations, and collaborate with Indigenous youth.

Tribal Organization:	Inter Tribal Council of Arizona, Inc	Amount Funded: \$50,000.00
Title: Tribal Opportunities for Preparedness in Arizona (TOPAZ)		

Project Description: The Tribal Opportunities for Preparedness in Arizona (TOPAZ) Internship Program aims to develop a cadre of American Indian/Alaska Natives (AI/AN) to pursue climate change and climate change-related professions upon completing their undergraduate/graduate training program. The internship will consist of four training pillars 1) Direct climate change work experience 2) traditional and ecological knowledge (TEK) and tribal languages 3) Federal Indian/Environmental policy 4) Professional Development. The four training pillars was developed out of numerous years of tribal and professional development roundtables coordinated by ITCA to strengthen the general tribal workforce in other areas.

Category 9: Youth Engagement

Category 9 awards are designed to support the integration of climate resilience or ocean and coastal management challenges into new or existing youth programs. Awards support tribes or tribal organizations with activities for primary or secondary school-age youth and their engagement in science, technology, and engineering or in traditional ecological knowledge education as they relate to and address climate resilience or ocean and coastal management challenges.

Number of Awards: 6

Total Amount Funded: \$225,975.00

Tribe: Confederated Salish and Kootenai Tribes

Amount Funded: \$50,000.00

Title: Finding Paths: Youth Learning and Leading Climate Resilience

Project Description: The goal of the proposed CSKT Finding Paths: Youth Learning and Leading Climate Resilience is to formally integrate tribal youth into the CSKT climate planning and implementation processes and to give them an opportunity to practice and present their learning(s) at a reservation-wide EAGLES Summit. We also intend to bring together in one place the many excellent cultural climate and natural resource materials that have been developed by our cultural experts and educators and to present them in a professional development training for reservation teachers. Providing a venue and groups for tribal youth to engage in tribally oriented civic activities, leadership opportunities, and interact with college and professional level people around a common goal, particularly one as important as climate change, is seen as very worthwhile by the Tribes, partners and schools.

Tribe: Port Gamble S'Klallam Tribe

Amount Funded: \$15,150.00

Title: Climate Resilience Tribal Youth Environmental Stewardship Corps

Project Description: Climate change is a real and pressing issue that is already impacting the PGST community in complex ways that interact with other environmental pressures (ex. pollution, fisheries demand and scarcity). Most of all, the accelerating nature of climatic change means that today's Tribal youth are likely to see significant changes in the land they live with, in the means by which they uphold important cultural traditions, and in the exercise of their treaty rights during their lifetime. In the face of this reality, it is valuable for youth to be informed regarding the nature of changes they can anticipate and ways they and their community can mitigate and adapt to climate change.

Tribe: Yurok Tribe Environmental Department

Amount Funded: \$50,000.00

Title: Natural Resources Youth Summer Camp

Project Description: This proposed project will allow the Yurok Tribe Environmental Department (YTED) staff to organize a youth summer camp with instructors from the Yurok Natural Resources Department and cultural practitioners to support intergenerational knowledge sharing, demonstrate combining Yurok Traditional Ecological Knowledge (YTEK) and western science methodologies surrounding environmental protection and climate change, and increase cultural connectivity and community integration. This project will support the coastal ecosystems that are critical for the cultural survival of the Yurok Tribe by providing education and stewardship opportunities to youth that will give them the knowledge and spark their interest to be future Yurok tribal science leaders and address the imminent impacts of global climate change and other environmental stressors.

Tribal Organization: Affiliated Tribes of Northwest Indians Amount Funded: \$49,996.00
Title: FY22: Changing Currents: Tribal Water Policy and Education Program

Project Description: Water is a critical & invaluable resource for tribal communities; is at the heart of tribal culture, spirituality, & society; & is critical to the Tribal life ways & climate resilience. Tribes view their relationship to the water as one of stewardship, which is a legacy that has been handed down for countless generations. The key principle in the stewardship approach is to leave the resource better than when you found it. Today, stewardship to water & natural resources is becoming difficult due to climatic impacts & the increasing demands & pressures on these resources. We propose the 023 Changing Currents: Tribal Youth Water Program to enlist Tribal knowledge keepers & Tribal interns to provide culturally appropriate training for Tribal youth to learn their inherent obligations as water stewards.

Tribe: Inter Tribal Council of Arizona, Inc. Amount Funded: \$50,000.00
Title: Preparing Future Tribal Climate Leaders for an Evolving Southwest

Project Description: Tribes are challenged with major environmental concerns and climate change impacts that negatively impact the health of American Indians and their environments. ITCA in partnership with climate subject matter-experts intends to strengthen their relationship with Tribal communities in the Southwest and engage Tribal youth in climate change and environmental health issues. These workshops will support the integration of climate resilience education and engage students in science, technology, and engineering while incorporating Indigenous Traditional Ecological Knowledge.

Tribe: Upper Snake River Tribes Foundation Amount Funded: \$10,829.00
Title: Tribal Youth Climate Camp - Summer 2023

Project Description: USRT is leading an effort to implement a Tribal Youth Climate Camp to take place in the summer of 2023. The project seeks to foster the next generation of tribal environmental leaders at USRT's four member tribes. By integrating climate resilience, science, and adaptation into an immersive climate camp, the tribal youth will be exposed to climate science in action, working directly with educators and employers in the field. Students will learn about the challenges and opportunities climate resilience managers face now and in the future. The project's purpose is to bring tribal youth from USRT's member tribes back to their ancestral homeland in the Boise Valley to learn about climate change, environmental stewardship, coordination with municipal agencies, and ultimately encourage students to pursue careers in fields addressing climate resilience.

Category 10: Implementation of Climate Adaptation Strategies

Category 10 awards are designed to support the Implementation of Climate Adaptation Strategies (maximum request: \$2,000,000)

Number of Awards: 17

Total Amount Funded: \$18,147,653.00

Tribe: Blackfeet Tribe Environmental Office

Amount Funded: \$1,421,072.00

Title: Culture as Climate Adaptation: Implementation of the Blackfeet Climate Change Adaptation Plan

Project Description: The Blackfeet Tribe, Blackfeet Environmental Office (BEO) is responsible for planning for the increasing impacts of climate change across the Blackfeet Nation, home of the Blackfeet people, the largest Native American Tribe in Montana. BEO hopes to share their process and lessons learned with others struggling to make sense of the impact the changing climate is having on their lives. Piikani Lodge Health Institute (PLHI) is a Native-led nonprofit that emerged as a grassroots response to the starkly disparate economic, social and environmental realities created by historic conditions and chronic federal and private underinvestment.

Tribe: Central Council Tlingit & Haida Indian Tribes of Alaska

Amount Funded: \$1,964,655.00

Title: Regional Community Greenhouse Program

Project Description: We seek funding to launch a Regional Community Greenhouse Program.

The Regional Community Greenhouse Program follows guidance set forth in the 2019 *T&H Climate Change Adaptation Plan1* and the 2021 *T&H Climate Change Action Plan2* (created under previous Category 2 and Category 1 BIA Tribal Climate Resilience grants), to strive for enhanced food security and enacted food sovereignty for our tribal citizens. These documents note the specific risks that climate change poses to food security in Southeast Alaska communities, including the disruption of traditional subsistence foods and expected increases in cost and unreliability of imported foods due to supply chain issues.

Tribe: Dry Creek Rancheria Band of Pomo Indians

Amount Funded: \$1,986,672.00

Title: Vineyard Flood-Managed Aquifer Recharge Pilot Project and Alexander Valley Reach Climate Resiliency Plan

Project Description: The Tribe will implement a pilot project identified in the 2016 climate adaptation plan related to the DCR-owned vineyard properties. The pilot project would seek to restore connection to the floodplain and manage captured high flow water for groundwater recharge and stream flow enhancement. This project also expands the scope of the planning area to off Rancheria properties. This Tribe will develop a hydrology and geomorphic vulnerability assessment and associated data analysis, implementation of the floodplain reconnection and managed aquifer recharge pilot project for off rancheria properties that DCR owns along the Russian River.

Tribe: Eastern Shoshone Tribe

Amount Funded: \$644,760.00

Title: Implementing A Sustainable Eastern Shoshone Tribal Climate Change Resilience Project for a Climate Change, Weather Ready and Resilient Community

Project Description: The project's technical objectives will involve being Climate Change Ready and improve resiliency by utilizing previous Eastern Shoshone Tribal Climate Adaptation Planning, the Wind

River Indian Reservation (WRIR) BIA wildfire management plan, and the WRIR drought contingency and Regional and State Hazard Mitigation plans. Eastern Shoshone Emergency Management/ Homeland Security and planners will lead six all-hazards resiliency implementation projects. Since 2010, our Eastern Shoshone tribe has experienced increasingly frequent extreme weather, with 17 different all-hazard event types occurring, including floods and droughts.

Tribe: Forest County Potawatomi Community **Amount Funded:** \$212,079.00
Title: Implementing Sustainability & Climate Change Resilience

Project Description: The Forest County Potawatomi Community proposes a Tribal Climate Resilience project that will help the Tribe implement sustainability and climate change resilience in the Tribal community, specifically by establishing the Tribe's Sustainability and Resilience Program. The Sustainability and Resilience Program will be managed by a Climate Sustainability and Resilience Coordinator who will prepare Tribal leadership, Tribal divisions, and the Tribal community to address predicted climate change impacts and in ensuring resilience of the Tribe, its members, and its culture, now and into the future.

Tribe: Fort Belknap Indian Community **Amount Funded:** \$999,436.00
Title: Rangeland Water Improvement Project

Project Description: The Fort Belknap Indian Community (FBIC) is requesting funds from the Bureau of Indian Affairs (BIA) Office of Trust Services, Branch of Tribal Climate Resilience for Implementation Of Climate Adaptation Strategies (Category 10, Climate Adaptation) to improve the resilience of rangelands to ongoing and projected climate change on the Fort Belknap Indian Reservation (Reservation). Funds will be dedicated to the implementation of the Rangeland Water Improvement Project that was created by the FBIC Agricultural Resource Management Plan (ARMP) completed in 2018. The rangelands are integral and ecologically, culturally, and economically significant to the FBIC as ranching accounts for 42% of the land use on the Reservation.

Tribe: Jamestown S'Klallam Tribe **Amount Funded:** \$1,109,796.00
Title: Climate Adaptation Strategies Implementation

Project Description: Dramatic changes to the Earth's (sčtəŋxʷən) atmosphere are resulting in loss of treaty protected natural resources, loss of economic opportunities, threatening Tribal facilities, and threatening the health of Tribal Citizens and the community. Tribe has suffered through historic heat waves, repeated weeks with hazardous outdoor air quality, record rainfall, drought, economic uncertainty, and global pandemic. Tribes are disproportionately impacted by these challenges. To adapt to these challenges, adaptation strategies need to provide multiple benefits and be adaptable to changing circumstances.

Tribe: Knik Tribe **Amount Funded:** \$1,804,800.00
Title: Paralytic Shellfish Poisoning Risk Management.

Project Description: Every year in Alaska people are sickened and can die from toxicity caused by harmful algal blooms. This project is designed to implement a comprehensive outreach and community-based program to reduce the risks from the climate-driven increase of PSP in the Alaska marine ecosystem. This project is designed to address Category 10: Implement Climate Adaptation Strategies executing climate resilient applications identified in existing final plans, Quality Assurance Project Plan

(QAPP) for Predicting PSP in Four Communities in the Aleutian Islands required by the Environmental Protection Agency (EPA).

Tribe: Lac du Flambeau Band of Lake Superior Chippewa Indians **Amount Funded:** \$250,000.00

Title: Implementation Actions on Treaty Resources and Other Animal Species

Project Description: This project implements actions in Lac du Flambeau's Tribal Climate Resiliency Plan (TCRP) or better known as Waaswaaganing Gaagige Bimaadiziwin Gaawin Geqaabi Naniizanasinooon. In the plan 20 species were assessed for climate vulnerability through a climate change vulnerability index. This project focuses on completing action steps identified in the LDF TCRP on protecting species culturally sensitive to the Lac du Flambeau Community. Species assessed through our Climate Change Vulnerability Index (CCVI) were chosen through interviews with local TEK experts, Tribal programs and surveys from the general public (Tribal & non-Tribal).

Tribe: Navajo Nation Department of Fish and Wildlife Climate Change **Amount Funded:** \$399,953.00

Title: Climate Change Program

Project Description: This category will help continue CCP's efforts by sponsoring implementation strategy project goals in accordance with the Climate Adaptation Plan of the Navajo Nation (CAP). This category award will serve as the next step in addressing climate change effects by financially supporting CAP's implementation strategy goals. Once in place, the proposed plans and projects will allow the Navajo communities, Navajo Nation Divisions, and other Navajo organizations to start initiating implementation strategies across the Navajo Nation where negative impacts of climate change have hit hard.

Tribe: Northern Arapaho Tribe **Amount Funded:** \$764,000.00

Title: Implementing the Sustainable Northern Arapaho Tribal Climate Change Resilience Project for a Climate Change, Weather Ready and Resilient Community

Project Description: The Northern Arapaho tribe on the remote and vulnerable Wind River Reservation (WRIR) has experienced increasingly frequent extreme weather since 2010, with 17 different identified all-hazard events occurring, including floods and droughts. A marked increase in long-term Climate Change impacts is occurring within our local environment, society and economy. The increasing Climate Change and extreme weather issues affecting the WRIR make it critical to build infrastructure to develop resiliency. Northern Arapaho Emergency Management/ Homeland Security and planners will lead seven all-hazards resiliency implementation projects including: Re-opening the Tribal NPR Public Radio station., Providing six Emergency Alert System (EAS) encoders for WRIR radio stations Implementing a Northern Arapaho Weather Ready Community pilot project.

Tribe: Pala Band of Mission Indians **Amount Funded:** \$358,160.00

Title: Planet Pala Information Campaign for Climate Resilience

Project Description: The Pala Band of Mission Indians (PBMI) Planet Pala Information Campaign for Climate Resilience (Planet Pala ICCR) is a hands-on climate adaptation and hazard mitigation program that addresses vulnerabilities identified in the Tribe's Climate Change Vulnerability Assessment¹ and FEMA-approved Hazard Mitigation Plan². The Planet Pala ICCR implements strategies identified in Pala's Climate Adaptation Plan³ and the Hazard Mitigation Plan. Through the development of neighborhood

trainings, an expanded interactive website, and educational materials the Tribe will develop an increased level of resilience.

Tribe: Pueblo de San Ildefonso Amount Funded: \$1,099,804.00

Title: Preparing the Pueblo de San Ildefonso for Wildfire

Project Description: Wildfires in New Mexico are a natural part of the ecosystem, however higher temperatures, drier conditions, and more wind events are increasing the frequency and intensity of wildfires. The Pueblo de San Ildefonso (the Pueblo) is already experiencing a higher frequency of intense wildfire events. Given the high risk of wildfire, the Pueblo developed a Climate Action Plan with several adaptation actions focused on reducing wildfire risk through mitigation and community education and outreach activities. This project focuses on implementing these wildfire mitigation actions. Over a two-year project period, this project will provide long- and short-term solutions to reduce wildfire risk on and around the Pueblo de San Ildefonso.

Tribe: Rosebud Sioux Tribe Amount Funded: \$1,681,224.00

Title: Sicangu Climate Center

Project Description: The Rosebud Sioux Tribe seeks to develop a Sicangu Climate Center to assert tribal sovereignty over water, lands and resources, protect tribal life, property and resources from climate change, and better manage and integrate existing tribal programs and activities. This award builds on past BIA-funded activities to complete the foundational work needed to ensure long term success of the Center by improving data collection, integration, access, and dissemination for use in tribal decision making--thus improving governance at Rosebud while the Center continues to develop. Protecting life and property is the fundamental role of human governance, and climate poses real risks that data and information can help manage.

Tribe: Spokane Tribe of Indians Amount Funded: \$1,640,460.00

Title: Drought and Climate Change Resiliency Through Water Re-Use Upgrades at the Spokane Indian's Tribal Fish Hatchery

Project Description: The Spokane Tribal Hatchery (STH) is currently a raceway flow through system which is a common aquaculture system which relies on high water flow through shallow tanks to maintain water quality and remove waste. Water enters the hatchery from an aquifer and a well and discharging to a creek which runs to Tshimakain creek and into the Spokane River. The purpose of this projects is to install infrastructure for water recirculation at STH and reuse. STH does not currently have the capital funds needed to acquire and install the reuse system. Once completed it is anticipated that the infrastructure upgrades to reuse water at the hatchery will strengthen tribal water resource management, while decreasing the amount of water needed to maintain hatchery operations, while also resulting in healthier fish throughout the growing season.

Tribe: Swinomish Indian Tribal Community Amount Funded: \$63,292.00

Title: Saving swÉ™dÄĲĲĲ: Preserving Huckleberry Access and Culture in an Era of Climate Change

Project Description: Here, we propose a project designed to increase both access to, and yield of, huckleberries in an area of traditional gathering. By building new trails and enhancing existing ones, we hope to get more Community members, especially children and elders, into the huckleberry patches. Enhancing access and productivity of huckleberries enjoys widespread support among the Community,

as evidenced by the annual participation in “huckleberry camps” over the past few summers. Our project also enjoys the support of departmental leaders, whom have directed their personnel in both the Environmental Community Health and Wildlife Program to dedicate time to seeing this project implemented.

Tribe: Tulalip Tribes of Washington

Amount Funded: \$1,747,490.00

Title: Implementing Tulalip Natural Capital Climate Adaptation

Project Description: This project is designed to support building capacity within the Tulalip Tribal government to account for and track the impacts of various land use action proposals on ecosystem services and natural capital assets. This project supports The Tulalip Tribes’ commitment to securing ecological systems, protecting tribal membership life ways, and allowing the Tribes to assist landowners throughout the basin to implement carbon sequestration projects by modeling the potential carbon-storing capacity of forest, riparian, and floodplain management strategies. This project aims to implement key elements of The Tulalip Tribes climate adaptation strategy.

Category 11: Implementation for Relocation, Managed Retreat, and Protect-in-Place Actions
Category 11 awards are designed to support the Implementation of Community Relocation, Managed Retreat, or Protect-in-Place Actions (maximum request: \$3,000,000)

Number of Awards: 6

Total Amount Funded: \$12,706,418.00

Tribe: Akiak Native Community Amount Funded: \$2,706,775.00

Title: Managed Retreat Implementation

Project Description: The Tribe's project is a mixture of implementation of new subdivision development and planning for retreating from the river. The Tribe will prioritize managed retreat project tasks, totaling \$9.9M, as outlined in this project. In order to relocate existing structures or build new structures in a safe location, the Tribe must expand an existing housing subdivision and community economic development park. This will allow the Tribe to develop vacant lots, and then relocate the existing structures that are threatened by the Kuskokwim River. The Tribe will construct a new subdivision and a new solid waste site access road, among other actions.

Tribe: Chilkat Indian Village (Klukwan) Amount Funded: \$589,762.00

Title: Jilkaat Kwaan Heritage Center Bank Stabilization Project

Project Description: The Tribe will implement immediate Protect-In-Place measures that will also provide support for the long-term health of salmon runs by creating naturally-derived bank erosion protection structures that also provide salmon habitat. Our village is located at the confluence of the Chilkat, Klehini and Tsirku Rivers, and recent glacier retreat as well as permafrost melt in nearby alpine areas is creating large-scale climate change related threats for our community located twenty miles upstream from Lynn Canal in coastal Southeast Alaska. Chilkat river flooding and erosion is removing a large section of the riverbank next to the Jilkaat Kwaan Heritage Center campus and threatens the existence of this campus and its buildings, along with the threat it brings to lost salmon habitat.

Tribe: Makah Indian Tribe of the Makah Indian Reservation Amount Funded: \$2,056,574.00

Title: Sophie Trettevick Indian Health Center (STIHC) Relocation Project

Project Description: Climate change induced impacts that include flooding, landslides, coastal inundation, and erosion, threaten the Sophie Trettevick Indian Health Center (STIHC) and community access to it during emergencies. The STIHC must maintain operational capacity to provide emergency medical services for this rural and remote community. The Tribe has made significant organizational and logistical planning efforts to prepare and respond to climate change and build resiliency. The Tribe plans to relocate the STIHC to a site at a higher elevation above the hazard zone.

Tribe: Native Village of Nunapitchuk Amount Funded: \$2,217,314.00

Title: Public Safety Building Construction for Managed Retreat

Project Description: The Native Village of Nunapitchuk is a federally-recognized tribe located in Nunapitchuk, AK, a community which has experienced increasingly severe flooding, riverine erosion, and permafrost degradation caused by climate change. Erosion has advanced the river to the doorstep of the public safety building, and the building is in irreparable condition. The building houses all essential search and rescue equipment and operates as the office building for the Village Public Safety Officers

(VPSO), the only law enforcement personnel in the community. The Tribe will complete construction of the new public safety building.

Tribe: Port Gamble S'klallam Tribe

Amount Funded: \$2,137,650.00

Title: Relocation of High-Risk Shoreline Residents

Project Description: This project will relocate three families to newly constructed homes on other Reservation lots away from the shoreline. The project will demolish the three houses located on the high-risk properties and will restore the shoreline vegetation. The Tribe will hire a Program Manager to conduct much of this work. The Port Gamble S'Klallam Tribe (PGST) resides on the Reservation Trust lands in Kitsap County. The western boundary of the Reservation is approximately 2.5 miles, bordered by Port Gamble Bay, an inlet of Hood Canal. This shoreline area consists of predominantly bluff-backed beaches where landslides have occurred "Coastal bluff erosion is evident along most of the PGST shoreline. As bluffs erode, they contribute sediment to PGST beaches and are therefore considered important for ecological functions on the PGST shoreline. However, valuable infrastructure like homes...are near the bluffs and are at higher risk due to bluff erosion".

Tribe: Village of Chefofnak

Amount Funded: \$2,995,843.00

Title: Managed Retreat Subdivision Construction and Home Relocation

Project Description: The community of Chefofnak is facing severe impacts from permafrost degradation, erosion, and flooding. Thanks in part to past BIA TRP funding, we have planned and designed a subdivision site at a safe location. We will relocate and replace infrastructure at this new site—including a new preschool and 19 homes. This is a large, complex effort that has taken years of assessments, planning, and coordination with many entities. The proposed project will purchase heavy equipment for our community and construct one gravel pad and a portion of a gravel road in the new subdivision.

Category 12: Relocation, Managed Retreat, and Protect-in-Place Planning Coordinator
Category 12 awards are designed to support the Relocation, Managed Retreat, or Protect-in-Place (RMP) Coordinator (maximum request: \$150,000 per year for up to three years)

Number of Awards: 10

Total Amount Funded: \$1,357,744.00

Tribe: Akiak Native Community

Amount Funded: \$150,000.00

Project Description: The Kuskokwim River is migrating westerly into Akiak with the main river channel (approximately 60 feet deep) right in front of the village. The soils in Akiak are silty sands with no gravel or rocks, and during high water events are prone for slumping and erosion. We do not know when or where the river will stop. The Tribe has been working on the Akiak Home Relocation and Managed Retreat project for the past three years. We have an Akiak tribal member who has three decades of project management and civil engineering experience on rural Alaska projects - mostly with federal agencies.

Tribe: Chinik Eskimo Community (Golovin)

Amount Funded: \$83,736.00

Project Description: The Tribe will take steps to increase Golovin's RMP Coordination. Golovin is the 4th most at-risk community of 187 communities assessed through the November 2019 *Statewide Threat Assessment: Identification of Threats from Erosion, Flooding, and Thawing Permafrost in Remote Alaska Communities*. The federally recognized tribe of Golovin, the Chinik Eskimo Community (CEC), has forwarded Relocation Managed Retreat Protect-in-Place (RMP) efforts for over a decade. Tribal staff have worked on agency coordination, funding acquisitions, planning documents, design projects and construction within the community to advance our community's resilience readiness.

Tribe: Jamestown S'Klallam Tribe

Amount Funded: \$149,923.00

Project Description: The Jamestown S'Klallam Tribe (Tribe) is a Federally recognized Tribe that has limited staffing capacity and needs a Managed Retreat, Mitigation, Adaptation, Planning and Implementation Coordinator, the Tribe needs to relocate a residence and the next immediate need is the relocation of the Natural Resources Laboratory. The project goal is to increase the resilience of the Jamestown S'Klallam Tribe and to address the climate change impacts on Tribal properties, resources, citizens, and Tribal treaty rights.

Tribe: Karuk Tribe

Amount Funded: \$82,162.00

Project Description: The Karuk Tribe is working towards improving our environment and counteracting the effects of climate change and colonization in our communities. Climate change has caused a severe drought in our area which is causing warmer river and creek temperatures, less snowpack, and more prevalent wildfires. As our water sources warm, they become uninhabitable for many traditional food sources for Karuk people. Karuk people have lived here since time immemorial and will continue to live here, but it gets harder and harder as our sources for subsistence living are put at risk. The proposed work done during this project will enable the Karuk Department of Natural Resources to use the Tishániik Farm's produce to help support and provide lasting resources for our Tribal community.

Tribe: Native Village of Kwigillingok

Amount Funded: \$150,000.00

Project Description: The goal of this project is to increase Tribal capacity to address harmful environmental trends that threaten the Native Village of Kwigillingok. The Tribe will Coordinate community response to environmental threats. The Tribe will hire a Coordinator and a Resilience Planning Assistant, coordinate the community's response to environmental threats by identifying the current needs and priorities of the community, keeping track of ongoing projects in the community, and keeping all entities and the public informed of progress and challenges, serve as the central point of contact for local and external entities for Kwigillingok's efforts to respond to environmental threats, collaborate with external partners including engineering firms, state and federal agencies, and non-profit partners to secure technical and funding assistance to address environmental threats, conduct erosion and flood monitoring in partnership with the State of Alaska Coastal Hazards program, manage grants related to erosion, flooding, and permafrost degradation, including grant reporting.

Tribe: Native Village of Shaktoolik

Amount Funded: \$143,151.00

Project Description: The chief of Civil Works at the U.S Army Corps of Engineers Alaska District has said, "Our greatest fear is storm will hit Shaktoolik in the middle in the night and, when we pick up the phone in the morning the line is dead, and the whole community is wiped out." To address the storm surge threat, the Native Village of Shaktoolik requests \$150,000.00 to create a two-year Community Resilience Coordinator position to prepare for and respond to environmental threats. Under the direction of the Tri-Org, the Community Resilience Coordinator will lead all community planning related to coast hazards with the goal of increasing local capacity to avoid disaster.

Tribe: Newtok Village

Amount Funded: \$149,064.00

Project Description: The community of Newtok is currently separated by nine miles of the Ninglick River. As of 2019, 125 people are located upriver in the resilient community of Mertarvik, built on stable land. Approximately 250 people feel "left behind" in Newtok Village, which is experiencing accelerated erosion, storm-surge flooding, degrading permafrost, and standing water. It is feasible that the 2022 Fall/Winter storm season may devour the remaining 86 feet of land, compromising the school. Additionally, the FAA will close the Newtok runway in September 2022. Newtok will cease to be a viable community.

Tribe: Port Gamble S'Klallam Tribe

Amount Funded: \$150,000.00

Project Description: The Program Coordinator will be instrumental in the implementation of the Relocation of High-Risk Shoreline Residents program, which will relocate three resident families from shoreline properties where an imminent threat to life and property has been identified due to landslide risks. With sea level rise and other climate change effects the Reservation shoreline properties have become more susceptible to erosion and landslide events. A combination of factors including rising sea levels, undercutting of shoreline bluffs, more extreme weather events, increased runoff, as well as soil characteristics impact the severity and frequency of these events.

Tribe: Quinault Indian Nation

Amount Funded: \$150,000.00

Project Description: The Quinault Indian Reservation is located on the Olympic Peninsula, with 23 miles of pristine coastline, on the Pacific Ocean. Sea level change from climate change stands to affect the Quinault quality of life, through changes in the landscape and waters that influence changes in cultural practices, and impact the economy of natural resource industries, infrastructure and the subsistence

way of life. The most pressing concern seems to be the threat of coastal flooding to Quinault Indian Nation's main villages of Taholah and Queets. The Tribe will hire a Coordinator/Emergency Management Administrative Coordinator.

Tribe: Tuluksak Native Community

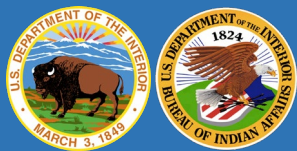
Amount Funded: \$65,000.00

Project Description: This award will help to address flooding and erosion concerns in the community to hire a Coordinator to prepare for RMP planning activities. In the Denali Commission a Statewide Threat Assessment: Identification of Threats from Erosion, Flooding, and Thawing Permafrost in Remote Alaska Communities (November 2019), the Denali Commission lists Tuluksak as the 5th most threatened village from flooding, 40th from erosion and overall the 20th most threatened village in rural Alaska. The erosion and flooding risks to Tuluksak are real. The community has a lapsed hazard mitigation plan (2013) that reflects these local environmental threats from flooding and erosion identified in the aforementioned 2019 Denali Commission assessment.

Tribe: Village of Chefnak

Amount Funded: \$149,708.00

Project Description: The Village of Chefnak is a federally-recognized tribe/Alaska Native village. The Tribe will develop adaptation planning to address erosion, melting, permafrost, increasingly violent storms, flooding, reduced stability of buildings, roads, and infrastructure. We are not connected to any roads or other communities and our region is more water than land, making the damages from river flooding and storm surges greater. The impact of climate change could be catastrophic. The Tribe will create and fund a Coordinator Position for the Village of Chefnak.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Total Number of Awards: 135

Total Amount Funded: \$13,848,873

Category 1: Trainings and Workshops

Category 1 awards support the design and hosting of regional or national tribal climate training(s) or workshop(s) that will assist tribal leaders, program coordinators, planners, and managers in developing the skills necessary to address climate change impacts by developing tribal adaptation plans, or management options, through in-person and webinar trainings and workshops.

Number of Awards: 10

Amount Funded: \$1,116,832

Tribes: Big Valley Band of Pomo Indians

Amount Funded: \$110,192

Title: *Anticipating Climate Change Impacts on Tribal Waterbodies and Beneficial Uses*

Project Description: Climate change-induced harmful algal blooms (HABs) are rising worldwide. California tribes and tribal communities fishing in naturally occurring water bodies, gathering aquatic reeds (tule, bulrush, sedge) for basketry and food, and conducting rituals or ceremonies within aquatic habitats (like the prayer ceremonies on the Klamath River and the annual tule festival on Clear Lake) are facing increasing health threats from cyanotoxins. The project will use the Tribe's expertise in water quality monitoring, multi-agency data-sharing and collaboration, advocacy work for culturally significant species, and the Tribe's citizen science training program to run two workshops for California tribes and tribal communities facing climate change-augmented HABs that threaten tribal beneficial uses of ancestral waters.

Tribes: Dry Creek Rancheria Band of Pomo Indians

Amount Funded: \$132,065

Title: *Fire Resilience Training*

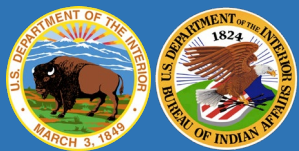
Project Description: The Dry Creek Rancheria Band of Pomo Indians (DCR) will use the Category 1 award to develop a fire resilience training for management of DCR lands. Fire in California has become a major threat to communities and is expected to become a greater risk to rural landscapes in the future. A portion of Dry Creek Rancheria was burned during the 2019 Kincadee Fire that burned over 77,758 acres in Sonoma County. As California heads into a critical dry year, the wildfire season may be the worst in history. Training for resiliency requires documentation of Traditional Ecological Knowledge (TEK) of historical landscape conditions and management from elders and incorporating these landscape management methods with the current landscape management science to become fire resilient.

Tribes: Pala Band of Mission Indians

Amount Funded: \$149,966

Title: *Tribal Health and Adaptation Advanced Training Project*

Project Description: This project will provide interactive trainings and other capacity-building resources to leverage and advance the health and adaptation knowledge of tribal-serving professionals throughout the United States that are facing extreme events and harmful environmental trends. The project will develop and administer peer-to-peer virtual tribal roundtables on advanced topics, a recognition training program, a summit, and presentations at three highly attended tribal conferences designed. To meet evolving needs of tribes at different stages of planning, PBMI will provide guidance through facilitated exchange of peer knowledge and best practices, instruction, tools, templates, case studies, and corresponding activities and other adult-learning techniques based on the latest science and literature.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribe: Red Lake Band of Chippewa Indians

Amount Funded: \$84,879

Title: *Continuous Monitoring Training*

Project Description: The project will provide training to all interested tribes in the Midwest Region in the construction, deployment, and data collection and analysis procedures necessary to implement continuous monitoring for dissolved oxygen, temperature, and water levels in lakes and streams. The training will include previously developed training modules followed by individualized guidance to assist programs with equipment setup, data collection, data QC and analysis, and troubleshooting. In addition to the training, supplies and equipment will be provided to participating tribes to a monitoring site, with a goal number of 10 new tribal continuous monitoring sites in the region.

Tribal Organization: Affiliated Tribes of Northwest Indians

Amount Funded: \$143,327

Title: *2022 National Tribal Leadership Climate Summit*

Project Description: ATNI and our partners will host the 2022 Summit and build upon the successes and partnerships of previous Summits and ATNI's related efforts. We will build off of the 2021 Summit successes and themes identified in the Tribal Review of the 2020 Congressional Action Plan for the Climate Crisis and the BIA's assessment of the unmet funding needs for Tribal infrastructure threatened by climate (2020). The 2022 Summit themes will include: Clean Energy and Jobs; Environmental Justice and Climate Resilience; Health, Well-being, and Traditional Knowledges; and Institutional Barriers to Tribal Resilience.

Tribal Organization: Eight Northern Indian Pueblos Council

Amount Funded: \$62,087

Title: *Southwest Tribal Climate Adaptation Menu: Engaging Capacity Building*

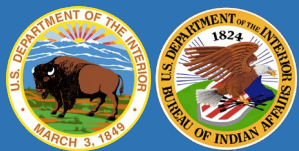
Project Description: The New Mexico Tribal Resilience Action Network & Eight Northern Pueblos Indian Council Office of Environmental Technical Assistance is proposing to initiate development of a Southwest Tribal Climate Adaptation Menu (SWTCAM) by engaging in capacity building and conducting scoping through FY2021 Tribal Climate Resilience Program funding. The SWTCAM will be modeled on the document developed by the Great Lakes Fish and Wildlife Commission, but specific to Southwest ecology and climate concerns. This phase of the SWTCAM project will identify potential partners, stakeholders and rights holders from Tribes/Pueblos, federal agencies, and relevant state, university, and non-governmental partners that will be invited to participate in meetings throughout the Southwest (for this project, New Mexico, Arizona, Utah, Nevada, and Southern California).

Tribal Organization: Intertribal Council of Arizona

Amount Funded: \$133,720

Title: *Climate Resiliency Workshops and Trainings*

Project Description: The Intertribal Council of Arizona, Inc. plans to execute workshops and trainings that focus on climate topics that are of prominent concern to Tribes in Arizona identified as drought, water quality and availability, outbreaks of pests, air quality, wildfires, soil health, and data needs and research priorities to support tribal data governance for climate resilience. The workshops will emphasize climate projections, climate impacts, vulnerability assessments, and climate adaptation strategy to provide recommendations for future actions to build capacity and improve tribal resilience.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribal Organization: Navajo Technical University **Amount Funded:** \$149,857

Title: *Climate Adaptation Workshop: Combining Indigenous Knowledge with Scientific Tools to Address Water Quality and Woodland Landscape Challenges*

Project Description: Indigenous communities of the Colorado Plateau and surrounding region are among those most threatened by climate change impacts because rising temperatures and reduced precipitation significantly reduce the availability of water for humans and livestock, while simultaneously reducing grassland and woodland productivity. This proposed workshop intends to bring together the perspectives of local community members, native environmental professionals, and state and tribal university researchers. Cost effective and widely available tools will be demonstrated to help identify, quantify, and address specific challenges. This workshop will also help indigenous leaders, tribal staff, and university personnel to resume their climate change mitigation planning which has been halted by COVID-19.

Tribal Organization: Northwest Indian College **Amount Funded:** \$14,645

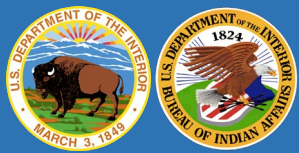
Title: *Technical Sessions to Design Renewable Energy Programs and Projects*

Project Description: The proposed trainings will build the knowledge (ex. case studies, best practices) and relationships (ex. Tribal leaders that can share examples of successful projects) needed to build capacity for project development. NWIC faculty are among the representatives on the Lummi Energy Planning Team, which has been developing funding proposals to implement Lummi Nation's Strategic Energy Plan, where the NWIC main campus is located. Training participants will utilize these trainings to pursue best practices in developing programs and projects at all NWIC campuses, as well as with the Lummi Energy Planning Team. Training participants will include NWIC faculty and research assistants. The participants will capture notes from these trainings and compile into a report that will be presented to NWIC administration and Lummi Energy Planning Team.

Tribal Organization: United Southern and Eastern Tribes, Inc. **Amount Funded:** \$136,094

Title: *Tribal Nations Forests and Wetlands Climate Resilience Series Project*

Project Description: The USET OERM Climate Change Resilience Team will host a seven-part webinar series to highlight major climate impacts on forests and wetlands. Forests and wetlands are connected by their hydrological, ecological, and cultural functions within their respective landscapes. Tribal natural resource managers at the local level are tasked with managing these ecosystems and cultural resources while adapting to the impacts of climate change. With no singular solution existing for adapting to this complex issue of climate change, workshops, and trainings- this work will help to bridge the gap between science and practice. In doing this work, USET will also be training the next generation of environmental professionals working with and for Tribal Nations and Tribal organizations.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Category 2: Adaptation Planning

Category 2 awards support the development of adaptation plans, vulnerability assessments, and development of data analysis efforts (including supplementary monitoring) to address climate changes that impact tribal treaty and trust resources, economies, infrastructure, and human health and welfare.

Number of Awards: 50

Amount Funded: \$6,825,074

Tribe: Aleut Community of St. Paul Island

Amount Funded: \$149,996

Title: *Data Analysis and Product Development: Climate Adaption Planning*

Project Description: The project addresses the need for Alaska Native Tribes and rural communities to properly assess and measure the impact of environmental changes on their communities. The goal of the project is to develop an adaptation plan for St. Paul Island, including vulnerability assessments where needed and data analysis of existing data to address extreme events and harmful environmental trends impacting our resources, economies, infrastructure, human health and welfare. Additionally, deliverables will be shared broadly with other Alaskan Tribes.

Tribe: Big Pine Paiute Tribe

Amount Funded: \$149,995

Title: *Water Resiliency Management Plan*

Project Description: The Big Pine Paiute Tribe of the Owens Valley and its members have faced many challenges in their ability to manage water resources. The redirection of surface and groundwater by the Los Angeles Aqueduct led to degradation of the natural ecosystem and the Tribe's traditional access to water and resources. Climate change is further threatening the Big Pine Reservation's water, future resulting in changes to water availability to people, plants and animals. The objectives of this Water Resiliency Management Plan are to: 1) evaluate current Tribal water resources; 2) assess threats to water security from climate change; 3) engage the community to develop adaptation strategies that improve water resiliency; and 4) produce a planning document that directs strategy implementation.

Tribe: Big Sandy Rancheria Band of Western Mono Indians

Amount Funded: \$139,307

Title: *Advancing Climate Change Adaptation for Big Sandy Rancheria through Wood Energy Development and Workforce Training*

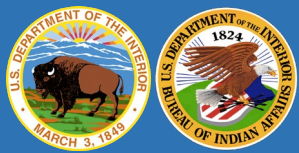
Project Description: Big Sandy Rancheria experiences vulnerability to climate change through heightened wildfire risk from overstocked forests, as well as unstable and inadequate grid energy due to de-energization events and power outages during extended wildfire seasons. Renewable energy assessments laid the groundwork to investigate biomass energy as a potentially viable renewable energy resource well-suited for BSR. Big Sandy Rancheria will complete a feasibility assessment and preliminary design of an advanced biomass combined heat-and-power system as a climate change adaptation strategy for BSR, which will support tribal efforts to mitigate extreme wildfire risk, increase energy resilience, provide training, education and employment opportunities in forest management and renewable energy for the community.

Tribe: Big Valley Band of Pomo Indians

Amount Funded: \$130,927

Title: *Adobe Creek Habitat Suitability and Flow Requirement Assessments for the Clear Lake Hitch*

Project Description: This project will use science-based analysis techniques to quantify Clear Lake hitch habitat suitability and flow requirements to support recovery of the species and climate resilience. This will be accomplished by developing a 2D hydrodynamic model of Adobe Creek and using the velocity and depth results along with species habitat criteria to develop habitat suitability curves. The habitat suitability curves will identify habitat within the creek



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

at a variety of flows and identify the minimum flows required to support hitch migration and spawning habitat. Tribal members and elders will be engaged in the process of defining habitat needs for the hitch in Adobe Creek, and their TEK will be integrated into the final technical memorandum for the project.

Tribe: Chevak Native Village **Amount Funded:** \$148,312

Title: *Permafrost Vulnerability Assessment*

Project Description: Chevak is a Yup'ik community of 1,014 residents located in the Yukon Kuskokwim Delta on a bluff that is subject to the rapid erosion of the Ninglikfak River. Rapid erosion of the bluff and permafrost degradation throughout the community threatens homes, power lines, and subsistence practices. Chevak will develop a permafrost vulnerability assessment to predict and address expected severe environmental impacts in the community. This project will increase Chevak's capacity to develop recommendations for near-term actions and inform long-term planning to protect the community. This project is a critical step in Chevak's efforts to protect their people, lives, livelihoods, and cultures.

Tribe: Chickaloon Native Village **Amount Funded:** \$142,692

Title: *Nay'dini'aa Na' Kayax U'el 'stestniic: Starting to be Aware of Vulnerability Project*

Project Description: Chickaloon Native Village will develop a Vulnerability Assessment (VA) that identifies and prioritizes Tribal assets and includes maps and supporting documentation in the forms of traditional knowledge and scientific data. The VA will also identify asset exposure risks, sensitivity, and adaptive capacity through interviews with culture-bearers and community members, literature review, data analysis, mapping, and numerous meetings. The process will be guided by a Tribal Climate Advisory Team consisting of Tribal citizens and Western scientists. The resulting VA will benefit multiple Tribes and communities in Southcentral Alaska.

Tribe: Chignik Bay Tribal Council **Amount Funded:** \$147,680

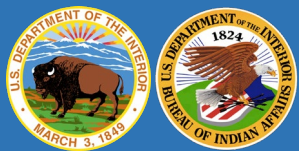
Title: *Climate Resiliency Action Plan*

Project Description: The community of Chignik Bay is located on the south shore of the Pacific side of the Alaska Peninsula. This project will combine and summarize the findings of past and current studies and/or data collections related to the climate, erosion, and flooding in our community, as well as identify important data gaps in currently available data. At risk commercial and residential infrastructure will be identified and mitigation strategies will be developed along with a high-level cost analysis for each strategy. All information collected, community goals, recommendations and next steps will be presented in a 'Climate Resiliency Action Plan' for Chignik Bay.

Tribe: Huslia Village **Amount Funded:** \$149,746

Title: *Riverine Erosion Assessment*

Project Description: Erosion poses an immediate and dire threat to Huslia Village's community life, health and safety. Huslia Village will develop a comprehensive riverine erosion assessment. The assessment will increase the community's capacity to complete near- and long-term planning to protect Huslia Village. This project will create scientific information and data on the magnitude and timing of the erosion threat to the community, which is required by state and federal decision makers. This scientific information and data will enable Huslia Village to create erosion mitigation strategies, near- and long-term strategic plans, and secure funding to implement solutions (e.g. move buildings).



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribe: Jamul Indian Village of California **Amount Funded:** \$102,077

Title: *Comprehensive and Collaborative Adaptation Planning Project*

Project Description: The Jamul Comprehensive and Collaborative Adaptation Planning Project will develop a comprehensive vulnerability assessment and adaptation plan for the Jamul Indian Village, a federally-recognized Tribe in San Diego County, California. The project will use industry-leading methodologies, tools, templates, and datasets to conduct a unique planning process that extends beyond the Tribe's Reservation to all Jamul's Tribal Members, who mainly live off-reservation. The project team will also produce a summary of intertribal vulnerabilities and adaptation strategies developed in collaboration with regional tribal partners to better prepare at least five tribes for extreme events and harmful environmental trends. Project results and benefits will be shared with other tribes locally and nationally.

Tribe: Kasigluk Traditional Elders Council (Native Village of Kasigluk) **Amount Funded:** \$143,050

Title: *Permafrost Vulnerability Assessment*

Project Description: Kasigluk, Alaska is a Yup'ik community of 627 residents located on the Johnson River in the Kuskokwim River Delta. Permafrost degradation, flooding, and erosion threaten homes, businesses, and boardwalks. Due to the severity of the threats, the Native Village of Kasigluk is unsure if the community will be able to remain in their current location. The Village will develop a permafrost vulnerability assessment to predict and address expected severe environmental impacts in the community. This project will increase the Village's capacity to adapt to climate change by developing community-specific data and informing the community's near-term actions and long-term planning efforts. This project is a critical step in their efforts to protect people, lives, livelihoods and culture.

Tribe: Knik Tribe **Amount Funded:** \$143,897

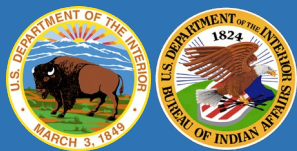
Title: *Climate Change Planning: Assessment of Paralytic Shellfish Toxins in Alaska Salmon*

Project Description: Rising ocean temperatures in Alaska are resulting in life-threatening harmful algal blooms by a single-celled microscopic plant, *Alexandrium catenella*, in the Gulf of Alaska and Bering Sea. We are finding toxicity levels in bivalves (clams, mussels, scallops) exceeding federally safety levels exceeding 100 times. Recently, we began testing other species and found that Alaska salmon among other species, had detectable paralytic shellfish toxins in their tissues. This project is an assessment of the toxicity of Pacific salmon, an important commercial and subsistence resource in Alaska. The data from this project will be used by members of multiple coastal Tribes in Alaska and public health agencies. There is a critical need to substantiate these findings.

Tribe: La Jolla Band of Luiseno Indians **Amount Funded:** \$147,549

Title: *Fire-Bringing Balance Back to the Land*

Project Description: The La Jolla Band of Luiseno Indians are actively exploring pathways for bringing cultural burning back to the land and advancing a model for co-management of ancestral homelands that are managed by non-tribal entities. This project will build off La Jolla's recent climate adaptation and natural resource conservation planning efforts and the Tribe's long-standing commitment to intertribal collaboration and that identified fire as a missing element needed to advance conservation and climate adaptation strategies. The project will also leverage an existing large-scale regional intertribal effort aimed at bringing cultural knowledge holders and Tribal fire managers to the forefront of western fire management efforts and identifying barriers to honoring our sovereign rights to steward the land.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribe: Native Village of Deering **Amount Funded:** \$141,931

Title: *Preliminary Engineering Report to Address Erosion Impacts*

Project Description: This project addresses erosion impacts to Utica Road, which is used to access the airport, water withdrawal point, and subsistence areas. The road runs parallel to the Inmachuck River and is threatened by accelerating riverine erosion. This project will complete a Preliminary Engineering Report with recommendations for improving and protecting the road. After this project is completed, the Village will be able to access funding from state and federal agencies to construct our community's preferred alternative. This project will preserve access to water, subsistence, and benefit every resident in Deering, Alaska.

Tribe: Native Village of Eek **Amount Funded:** \$140,740

Title: *Permafrost Risk Assessment*

Project Description: This project will engage science and engineering consultants to complete a long-term permafrost assessment to forecast what infrastructure will be impacted, when, and support us in developing solutions to mitigate the threats. This project will form the foundation of the Village's long-term adaptation plan, which will guide efforts to protect the safety, security, and sustainability of our community. It will benefit 100% of the residents in the small, remote, Tribal community.

Tribe: Ekuk Village Council (Native Village of Ekuk) **Amount Funded:** \$79,750

Title: *Beach Erosion Protection Feasibility Study*

Project Description: Ekuk, Alaska has a deep history of fishing salmon from the Village's beaches. Salmon fishing is central to the Village's subsistence practices, cultural identity, and economic activity. The beach and bluff are critical community infrastructure, where they gain access to the water. Today, however, the Village's fishing practices are in jeopardy due to accelerating coastal erosion and flooding of the Ekuk beach. The Village of Ekuk will complete a feasibility study to evaluate mitigation strategies to address erosion along the beach. The study will evaluate historic and predicted erosion rates, engineering and environmental considerations, cultural and economic impacts, mitigation alternatives, and provide project cost estimates.

Tribe: Native Village of Kongiganak **Amount Funded:** \$143,050

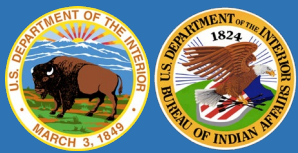
Title: *Permafrost Vulnerability Assessment*

Project Description: The Native Village of Kongiganak is a traditional Yup'ik community in Southwest Alaska located about 80 miles South of Bethel and approximately three miles from the Bering Sea. Critical community infrastructure including homes, boardwalks, and the bridge to the landfill are imminently threatened by erosion, permafrost degradation, and flooding. The Native Village of Kongiganak will develop a permafrost vulnerability assessment to predict and address expected severe permafrost degradation impacts in the community. The project will increase the Native Village of Kongiganak's capacity to develop recommendations for near-term actions and inform long-term planning to protect the community. This project is a critical step in the Native Village of Kongiganak's efforts to protect the people, lives, livelihoods, and cultures.

Tribe: Native Village of Kwigillingok **Amount Funded:** \$149,765

Title: *Riverine Erosion Risk Assessment*

Project Description: Kwigillingok, Alaska is a Yup'ik community of 374 people located on the Western shore of the Kuskokwim Bay near the mouth of the Kuskokwim River. Severe shoreline erosion threatens a critical community bridge and several homes. Due to the severity of the threats, the community is unsure if they will be able to remain



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

in their current location. The Native Village of Kwigillingok will develop an erosion risk assessment to predict and address expected severe environmental impacts in the community. This project will increase Native Village of Kwigillingok's capacity to develop recommendations for near-term actions and inform long-term planning to protect the community. This project is a critical step in Native Village of Kwigillingok's efforts to protect their people, livelihoods, and culture.

Tribe: Native Village of Napakiak **Amount Funded:** \$141,880

Title: *Managed Retreat Plan and Coordinator*

Project Description: Due to extremely aggressive erosion, the entire community of Napakiak is being forced to retreat to a safer location. Native Village of Napakiak's Managed Retreat Coordinator will plan and implement the managed retreat and train four key managed retreat staff members in grant management, financial management, land management, and other areas for the purpose of building capacity. The Coordinator will also engage Summit Consulting Services for technical support to update the Managed Retreat Plan based on the results of the current river morphology study.

Tribe: Native Village of Nunapitchuk IRA **Amount Funded:** \$149,541

Title: *Resilience Coordinator to Advance Adaptation*

Project Description: The Native Village of Nunapitchuk is among the most vulnerable of communities to climate change in the United States. Rapidly warming temperatures have increased the rate of erosion and the frequency of flooding has resulted in a rapid loss of permafrost underlying the community. These environmental hazards threaten community infrastructure in the near-term and the Native Village of Nunapitchuk's way of life and ability to live in their current location long-term. This project will hire a Community Resilience Coordinator to coordinate the community's response to climate change impacts. Further, it will provide funding toward engaging an engineering contractor for technical assistance to advance top community climate adaptation priorities. This project protects community life, health and safety.

Tribe: Native Village of Shaktoolik **Amount Funded:** \$150,000

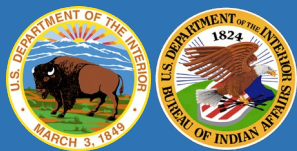
Title: *Coastal Resilience Planning and Design*

Project Description: Native Village of Shaktoolik will hold meetings with community leaders, travel to interagency planning meetings, and have their engineering consultant support technical components of planning and engineering design. This project will create a long-term resilience plan with prioritized projects for their solutions and begin engineering design and planning for the Native Village of Shaktoolik's highest priority solution.

Tribe: Native Village of Shishmaref **Amount Funded:** \$124,960

Title: *Site Expansion Planning*

Project Description: A November 2020 storm caused \$6.5 million in damage to our sanitation road. In some areas, the road and the land beneath it were eliminated. This project will provide the community with a Local Coordinator who will collaborate with State and Federal agencies on behalf of the community. The Local Coordinator will maintain and coordinate grant strategies and submit quarterly reports in all progress to ensure the community continues to pursue and maintain protection strategies.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribe: Nooksack Indian Tribe

Amount Funded: \$149,999

Develop a Watershed Hydrology Climate Adaptation and Resilience Plan for the Upper Nooksack River Watershed

Project Description: The Tribe will apply the results of their DHSVM/VELMA forest hydrology modeling in the Skookum Creek watershed to the rest of the upper Nooksack River watershed to assess the influence of forest stand age on late summer streamflows, a time most sensitive to salmon. With this information, the Tribe plans to develop forest management prescriptions and a climate resiliency plan that can be voluntarily implemented by public and private forest management entities to increase late summer streamflow as an offset to the impacts of continued climate change. This information will also be used to support the development of the Stewart Mountain Community Forest in the watershed, which will facilitate the Tribe exercising its right to harvest natural resources from the watershed as a climate resiliency tool.

Tribe: Pala Band of Mission Indians

Amount Funded: \$133,430

Title: *Threading through California Intertribal Resilience Data Development Project*

Project Description: This project will support tribes locally, state-wide, and nationally in developing, analyzing, and monitoring epidemiological and other datasets for adaptation planning and resilient decision-making. The Pala Band of Mission Indians will work collaboratively with five other California tribes, leading California state agencies, and health, epidemiology, climate and indigenous science experts across the country to identify and develop datasets and best practices that help tribes more easily compile and thread meaningful data through the adaptation planning process from early vulnerability assessments to strategy selection and ongoing resilience decision-making and supplementary monitoring. The project also will survey California tribes on high-priority resilience data needs.

Tribe: Pit River Tribe

Amount Funded: \$108,874

Title: *Climate Vulnerability Assessment and Adaptation Plan*

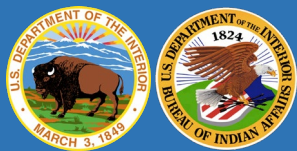
Project Description: The Pit River Tribe in Northeastern California is proposing to complete a Climate Vulnerability Assessment and Adaptation Plan for the 11 Bands. The Tribe has seen first-hand the effects of climate change such as increased fires, changes in medicinal plant and tree production, warmer springs and shifting redband trout, and changing deer herd migrations. The Tribe anticipates an adaptation plan that will be aligned with existing programs, that will support adaptation pilot projects, and that will produce guides and templates for incorporation of climate change into future programs and projects. The proposed project will build capacity by collecting and incorporating traditional Indigenous knowledge, providing training tools and documents, and partnering with previous BIA funded work.

Tribe: Pueblo de San Ildefonso

Amount Funded: \$108,874

Title: *Supporting Traditional Agricultural Knowledge by Developing a Resilient Farm Plan*

Project Description: The history, culture and traditions of the Pueblo revolve around the four seasons because the Tribe's people have always been agricultural. However, several factors have affected the community's ability to practice traditional agriculture. As a result, knowledge about how to grow and make traditional foods, youth interest in farming, and language have been fading. Today, many of the Pueblo elders retain the traditional agricultural practices that they learned as children, but this knowledge has not been documented for future generations. This project proposes to document traditional agricultural knowledge, including climate-resilient traditional agricultural practices, and develop a Resilient Farm Plan that includes knowledge from elders for today's Pueblo youth and future generations.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribe: Qawalangin Tribe of Unalaska **Amount Funded:** \$148,032
Climate Vulnerability Assessment

Project Description: The Qawalangin Tribe will continue to build their Climate Resilience program by preparing a Climate Vulnerability Assessment of key priority areas as identified through the process of updating their Climate Adaptation Plan. The Tribe will evaluate the likelihood of impact or hazard to each of these priority resources (exposure), how these hazards may affect the resource and how the resource might respond (sensitivity), and the ability of the community to deal with these potential impacts (adaptive capacity). Considering these components will allow the Tribe to complete a Climate Vulnerability Assessment that will be an important tool in planning for potential future actions that might help mitigate these impacts and increase Climate Resilience as a whole community.

Tribe: Redwood Valley Little River Band of Pomo Indians (Redwood Valley Rancheria) **Amount Funded:** \$149,999

Title: *Climate Change Adaptation Plan*

Project Description: The Redwood Valley Rancheria Climate Change Adaptation Plan addresses the need to properly assess, measure, and respond to the impacts of climate change upon the Tribal community, its infrastructure, and its ecological assets. The Project Coordinator will update the Vulnerability and Risk Assessment to address issues that became evident after the near catastrophic 2017 Redwood Valley Complex Wildfires. Additionally, the Project Coordinator will develop a comprehensive climate adaptation plan containing strategies and action items that will be developed and tracked using the Exposures, Impacts, and Strategies Inventory (EISI) tool, scientific literature, and community input.

Tribe: Robinson Rancheria Citizens Council **Amount Funded:** \$115,776

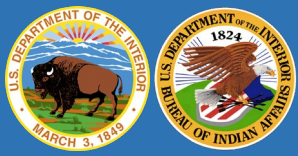
Title: *FY 2021 Xha Go'im (Stand up for Water): Drought and Climate Change Planning Project*

Project Description: Dry conditions and recurring droughts are becoming increasingly common in the community's area. Science tells the community that the source of these conditions are due to human caused climate change. The ongoing droughts cause a host of serious problems for the community, including unprecedented wildfires, impacts to native plants and animals, and instability of water resources. The Tribe's main focus for this project is the effect climate change has on their water resources. Robinson Rancheria's ultimate goal is to produce a "Climate Change Groundwater Model", which will enable the Tribe to navigate water usage and security. The model will be developed by incorporating a historic groundwater model developed for the Tribe, and updating it to reflect current trends and conditions to create a "Drought Management Plan".

Tribe: Round Valley Indian Tribes **Amount Funded:** \$149,381

Title: *Climate Vulnerability Assessment for the Fisheries and Water Resources of the Eel River*

Project Description: Eel River fisheries critical to the Round Valley Indian Tribes have been declining for the last century, caused by past and present basin wide challenges. Climate change further threatens the fisheries for the RVIT. The Round Valley Indian Tribes propose to assess the fisheries vulnerability to climate change by developing a fish productivity model that uses water temperature and riparian scenarios to evaluation mitigation strategies.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribe: Samish Indian Nation **Amount Funded:** \$147,257

Title: *Using GIS to Map Cultural Use Plant Habitats for Development of and Access to Resiliency Strategies*

Project Description: Samish Indian Nation was a recipient of the FY 2016 BIA Tribal Climate Resilience Program capacity building grant. This funded Phase I of the Samish Adaptation and Resilience Initiative, which included outreach to Samish Tribal citizens, inventory of culturally important plant and animal species, the identification of Tribal concerns related to environmental trends, and laid the groundwork for future adaptation planning work. This project will expand on the previous (and ongoing) work of the Samish Adaptation and Resilience Initiative, by mapping traditional use plant gathering areas and habitats so that Samish can develop access and resiliency plans specific to cultural keystone habitats containing traditional resources with public and private landowners.

Tribe: Seldovia Village Tribe **Amount Funded:** \$150,000

Title: *Visualizing Climate Change*

Project Description: One of the SVT's ultimate goals is to foster regional partnerships with all the neighboring entities. SVT will share all documents and data from this project with the bordering Tribes of Port Graham and Nanwalek. All the habitats to be defined, and the terrestrial resources associated with those habitats, share boundaries and natural ranges with all Tribal entities and municipalities on the lower Kenai Peninsula. These communities all share the resources that sustain them, and SVT intends to share valuable data in the ongoing effort to manage those resources in the best possible way. Additionally, landowners like the Department of Natural Resources will also benefit from this project as their lands are adjacent to the native-owned lands.

Tribe: Spokane Tribe of Indians **Amount Funded:** \$150,000

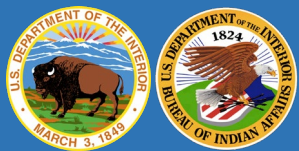
Title: *Climate Change Vulnerability Assessment and Adaptation Plan*

Project Description: The Spokane Tribe of Indians is striving to sustainably manage the natural resources that support many tribal recreational, cultural, sustenance and economic activities. However, the impacts of climate change will make that effort even more challenging. To preserve and protect the characteristics, cultural elements, and resources that contribute to and sustain the vision for the community, the Tribe will undertake an adaptation planning process in which they will (1) conduct a series of in-person workshops to articulate a community vision and identify vulnerable aspects of that vision, (2) use a combination of a literature reviews and hold meetings to conduct a vulnerability assessment, and (3) identify measures to adapt to the impact for each of the prioritized climate change vulnerabilities.

Tribe: Stillaguamish Tribe **Amount Funded:** \$108,341

Title: *Beaver Dam Analogs as a Climate Change Mitigation Tool*

Project Description: The Stillaguamish and Sauk-Suiattle Tribes will design and construct beaver dam analogs (BDAs) as a climate change mitigation tool to improve hydrology, reduce wildfire risk, create complex wetland habitat, and assist beavers with recolonizing historic habitat in the Stillaguamish watershed. Specifically, the Tribes will research and develop effective means of BDA installation, monitor their success and utility, and determine whether BDAs can be used to strategically guide the dispersal and successful recolonization of beavers into historic habitat. Results will be used to update and refine the tribes' Climate Change Adaptation Plans and review, assess, and adjust adaptation practices at the program level. Results will also provide broad benefits to other tribes and agencies.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribe: Tolowa Dee-ni' Nation

Amount Funded: \$149,902

Title: *Shaa-xu' -xat Fisheries Restoration Planning Project*

Project Description: The proposed Shaa-xu-xat (Rowdy Creek) Fisheries Restoration Planning Project (Project) will analyze restoration needs for the greater Rowdy Creek sub-basin, the largest basin described in the Smith River Plain Stream Restoration Plan (2018). The basin encompasses 34.08 square miles and contains an estimated 17.45 miles of potential anadromous stream habitat. Rowdy Creek, the second largest coastal tributary in the Smith River Plain, provides important spawning and rearing habitat for multiple salmonoid and lamprey species. This analysis would provide a tool for prioritizing and funding future restoration projects in the Rowdy Creek sub-basin. Historical accounts, including Traditional Ecological Knowledge, indicate that Rowdy Creek sustained large runs of anadromous fish.

Tribe: Upper Mattaponi Tribe

Amount Funded: \$141,600

Title: *Holistic Climate Change Vulnerability Assessment*

Project Description: UMIT is seeking to understand how climate change might affect the Tribe's homeland and the natural resources by completing a climate change vulnerability assessment, particularly one that seeks to integrate Traditional Ecological Knowledge (TEK). This project will make results of the assessment more useful to Tribal members and other Virginia Tribes, as well as strengthen the Tribe's understanding of how the environment may respond to climate change, and identify the culturally significant terrestrial and aquatic species and habitats that will be the most impacted climate change. This effort is critically needed for the Tribe to effectively engage in environmental management programs as it would facilitate strategic planning for climate change and provide context for resiliency planning.

Tribe: Village of Chefnak

Amount Funded: \$131,470

Title: *Environmental Threat Planning and Capacity Building*

Project Description: The community of Chefnak is facing increasing impacts from permafrost degradation, erosion, and flooding. Chefnak are addressing immediate threats and planning a new safe, subdivision site to which the community will replace and relocate homes and infrastructure. To increase community capacity to achieve their vision for a safe and healthy community, Chefnak will hire an Environmental Threat Coordinator position at the Tribal office and engage the engineering consultant to provide technical support. This project benefits all residents in the small, financially disadvantaged community.

Tribe: Village of Kotlik

Amount Funded: \$111,180

Title: *Adaptation Strategy Development*

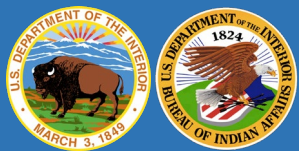
Project Description: This project will conduct the following activities: 1) Build the capacity of the Kotlik Resilience Coordinator and 2) Contract with CRW Engineering for technical and planning assistance. This project will immediately benefit the entire community of 655 people and address urgent threats to the health of the people and the sustainability of the community.

Tribe: Yurok Tribe

Amount Funded: \$97,068

Title: *Food Sovereignty Resiliency Project*

Project Description: The Yurok Food Sovereignty Resiliency Project consists of 1) creating a Yurok Traditional Foods Calendar to predict and plan for seasonal shifting due to global climate change and 2) to conduct cultural burning to evaluate the short-term effects on soil quality and the pervasiveness of invasive species as



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

part of the ongoing traditional food system restoration projects. The combination of Yurok Traditional Ecological Knowledge (YTEK) and contemporary science methodology will inform the Yurok Tribe on how to utilize cultural burning as a land management practice and how to prepare for further seasonality shifting by evaluating historical data and creating a baseline for future analysis.

Tribe Organization:	Kodiak Area Native Association	Amount Funded:	\$149,314
Title:	<i>Kodiak Tribal Climate Action Plan</i>		

Project Description: KANA proposes to support the development of Kodiak Tribal Climate Adaptation Plan (The Plan) and Kodiak Tribal Climate Adaptation Template (The Template) under Category 2: Adaptation Planning. The Plan will document climate hazards for Kodiak Tribes, assess vulnerabilities of key concerns, outline climate change data sets and monitoring efforts, and review the ways to reduce climate-related risks as a regional. The Template will be used by Kodiak Tribes, and customized to meet their individual needs and community conditions. KANA will work with Kodiak Tribes to identify and prioritize current and future challenges that our region and people encounter, determine which environmental areas have the highest probability of impact, and establish monitoring and mitigation plans to address them.

Tribe Organization:	Northwest Indian College	Amount Funded:	\$72,000
Title:	<i>Microgrid Feasibility Study</i>		

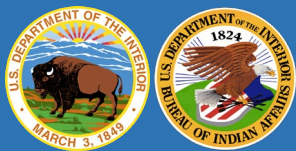
Project Description: Northwest Indian College (NWIC) proposes conducting a student driven feasibility study that will assess the financial and technical requirements of a microgrid, designed to support student learning in the Pre-Engineering Program and expand opportunities in Workforce Development. Student involvement in designing, and eventually building, a campus-sized microgrid will provide hands-on, real world experience that will enable them to be the future designers and builders of technologies that will move tribes toward energy sovereignty. This project will also help the NWIC campus move toward energy independence, which will pave the way for the entire Lummi Reservation to follow. Lessons learned will be shared with neighboring Tribal communities and presented at student conferences.

Tribe Organization:	Tanana Chiefs Conference	Amount Funded:	\$150,000
Title:	<i>Mainstreaming Climate Change Resilience in Village Planning and Service Provision to Villages</i>		

Project Description: Three to seven tribes in the Tanana Chiefs Conference region of Interior Alaska will be selected to mainstream climate change into their village plans. Other tribes are expected to benefit indirectly by participating in monthly phone calls regarding the planning update process. Still other indirect benefits come to tribes whose citizens are on the Climate Change Task Force that this project supports. Finally, we expect all 42 tribal villages in the region to have some benefit from TCC's mainstreaming climate change concerns into the services it provides, including housing construction.

Tribe Organization:	Tulalip Foundation	Amount Funded:	\$144,957
Title:	<i>Food Sovereignty Resilience Climate Adaptation Plan</i>		

Project Description: This project will lay a foundation for unifying and then working towards a vision of food sovereignty and security for the Tulalip Tribes in the face of climate change. The Tribe will work through three objectives: 1) organizing staff and program coordination across several Tulalip tribal departments and programs; 2) conducting and completing a food system assessment; and 3) developing a Tulalip Climate Food Sovereignty and Security Strategy Plan. This project will build capacity within various Tulalip tribal government departments and community programs to help grow the Tribes' commitment to securing food systems and lifeways such that the



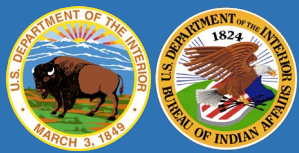
Bureau of Indian Affairs Tribal Climate Resilience Program

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community can meet the growing pressures of climate change and ecological instability with a plan for sustainability and security for generations to come.

Tribe Organization:	Yukon River Intertribal Watershed Council	Amount Funded:	\$148,408
Title:	<i>Creating Climate Change Water Adaptation and Action Plan for the Yukon River Watershed</i>		

Project Description: Climate change is impacting important water resources that rural Alaska Native Tribes depend on for drinking water, household use, and subsistence. A series of Water Resilience Workshops would be convened in all major Alaskan regions (Yupik, Koyukon, Athabascan, Gwich'in) of the Yukon River Watershed involving Alaska Native leaders, Tribal planners, Tribal environmental staff and interested youth and elders. A Water Adaptation and Action Plan will be drafted from these Workshops that will identify opportunities in water governance as well as on-the-ground actions. This project will address impacts of climate change to water resources through tribal planning efforts to explore strategies, and provide actionable ways forward to elevate water protection.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Category 3: Travel Support for Climate Adaptation Planning

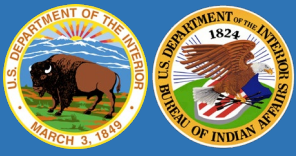
Category 3 awards are designed to provide access to training and technical workshops that help maintain or build adaptation knowledge and skills for climate resilience. Awards support for tribal leaders and staff to attend training(s) or workshop(s) or to participate in cooperative resilience and adaptation efforts.

Number of Awards: 15

Amount Funded: \$203,420

Project Description for All Category 3 Awards: Funding will provide travel support and access for tribal leaders, tribal members, and tribal staff to attend workshops, trainings, or meetings associated with building adaptation knowledge and skills for climate resilience to protect treaty and trust resources, economies, infrastructure, human health and tribal welfare. This may include training and technical workshops to ensure tribal voices are included and other practitioners benefit from tribal participation in training, research, and cooperative implementation. This does not include salary costs or international travel.

Tribe: Chickasaw Nation	Amount Funded: \$14,994
Tribe: Cow Creek Band of Umpqua Tribe	Amount Funded: \$15,000
Tribe: Iowa Tribe of Kansas and Nebraska	Amount Funded: \$13,210
Tribe: Pascua Yaqui Tribe	Amount Funded: \$7,158
Tribe: Qawalangin Tribe of Unalaska	Amount Funded: \$13,859
Tribe: Quapaw Nation	Amount Funded: \$8,385
Tribe: Salamatof Tribe	Amount Funded: \$14,350
Tribe: Shoalwater Bay Indian Tribe	Amount Funded: \$14,222
Tribe: Standing Rock Sioux Tribe	Amount Funded: \$15,000
Tribal Organization: Affiliated Tribes of Northwest Indians	Amount Funded: \$14,807
Tribal Organization: Chugach Regional Resources Commission	Amount Funded: \$15,000
Tribal Organization: Eight Northern Indian Pueblos Council	Amount Funded: \$15,000

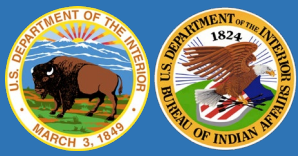


Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribal Organization:	Kodiak Area Native Association	Amount Funded: \$13,645
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Tribal Organization:	Tanana Chiefs Conference	Amount Funded: \$13,830
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Tribal Organization:	Yukon River Inter-Tribal Watershed Council	Amount Funded: \$14,960
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Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Category 4: Ocean and Coastal Management

Category 4 awards support ocean and coastal management planning, marine spatial planning, coastal adaptation/resilience analysis, and cooperative marine resource plans. Funding builds tribal capacity and can be used to assist with a tribe's efforts to restore and provide resilience of coastal resources, perform inventories or vulnerability assessments, identify monitoring protocols and critical indicator species, or implement a unique pilot study or project that would advance tribal resilience, adaptation, or ocean and coastal management knowledge.

Number of Awards: 15

Amount Funded: \$2,055,709

Tribes: Federated Indians of Graton Rancheria

Amount Funded: \$140,800

Title: *2021 Ocean Coastal Site Adaptation Plan*

Project Description: The Federated Indians of Graton Rancheria (the Tribe) from Northern California consists of 1,400 tribal citizens of Coast Miwok and Southern Pomo peoples. Since political restoration in 2000 (P.L. 106-568, Title XIV (114 Stat. 2939)), the Tribe has worked to educate its citizens and surrounding communities of the unique cultural heritage within the Tribe's ancestral lands of Marin and Sonoma County, California. The Tribe's 24-month project will (1) conduct a vulnerability assessment of at-risk cultural sites along the Sonoma Co. coastline; (2) share assessment results for citizen and cultural feedback to (3) develop a Coastal Sites Adaptation Plan in response to changing environmental threats. The Tribe is requesting \$145,000 in federal funding and will supply \$40,006 in leveraged funds.

Tribes: Hoonah Indian Association

Amount Funded: \$149,606

Title: *Capacity Building to Sustain Tribal Citizen Voices in Fisheries Management*

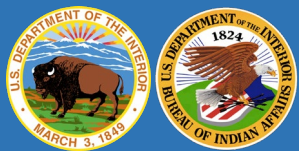
Project Description: This project advances tribal citizens and HIA to the next steps of fisheries management by addressing the historic inequity of Indigenous peoples in marine science and ocean and coastal management planning through two key strategies: developing culturally relevant career technical education pathways in fisheries management and supporting grassroots fisheries management in Hoonah and across the state of Alaska. The objectives listed in this project build tribal government and tribal citizen capacity and will enable tribal citizens and HIA to better engage with the fisheries management regulatory process in the State of Alaska.

Tribes: Lummi Indian Business Council (Lummi Nation)

Amount Funded: \$149,960

Title: *Vulnerability Assessment of Intertidal Shellfish Habitat on the Lummi Nation Tidelands*

Project Description: Treaty protected intertidal fishery resources, that coastal communities like the Lummi Nation rely on for their health, well-being, and livelihoods, are particularly vulnerable to climate change impacts. Potential adverse impacts to shellfish habitat suitability, productivity and access for harvest are expected where changes in the rate, composition, and quality of sedimentation are upset by climate and land use change. To build resiliency this project will model coastal habitat change under future climate conditions to create a vulnerability assessment of tribal tidelands to erosion with predicted sea level rise and storm/wave energy with USGS Coastal Storm Modeling System (CoSMoS) coupled with intertidal shellfish habitat suitability to guide adaptation planning.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribe: Makah Indian Tribe **Amount Funded:** \$143,760

Title: *Management and Monitoring of Emerging Threats to the Makah Tribe's Marine Resources*

Project Description: The Tribe will conduct four primary objectives: 1) Restore and provide resilience of Makah waterways by trapping and removing invasive European green crab in nearshore and estuarine waters and assessing offshore dispersal of European green crab in previously undocumented areas; 2) Monitor the health of intertidal and subtidal sea urchin populations in the Makah U&A to determine the extent of and identify emerging urchin barrens; 3) Continue monitoring of the culturally and ecologically important indicator species, the purple olive snail, on the Makah Reservation; 4) Incorporate ecological data into GIS shapefiles and map products that can be incorporated into the Makah Tribe's Marine Spatial Plan and Oil Spill Response Plan.

Tribe: Native Village of Diomed **Amount Funded:** \$147,252

Title: *Monitoring and Assessment of Changing Ocean Conditions on Traditional Harvest of Bering Strait King Crabs*

Project Description: The Native Village of Diomed (NVD) proposes to implement a robust environmental monitoring program to generate critical environmental data and information on changing ocean conditions that will be used to establish adaptation and mitigation strategies for traditional harvest of Bering Strait king crabs: *Paralithodes platypus* (blue king crab) and *Paralithodes brevipes* (Hanasaki crab or brown king crab). NVD has a vested interest in protecting traditional and subsistence natural resources and the health of tribal citizens in their traditional tribal territory. Bering Strait king crabs are a key subsistence food source for NVD tribal citizens. yet warming ocean conditions, changes in sea ice dynamics, and shifts in ocean chemistry may be contributing to the decline in subsistence catch off Little Diomed Island.

Tribe: Point No Point Treaty Council **Amount Funded:** \$147,041

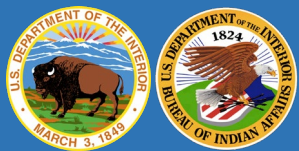
Title: *Flooding Susceptibility to 15 Maritime Watersheds using Improved Climate Models and Vulnerability Assessment of Salmon and Shellfish Habitat for Adaptation Planning*

Project Description: The Jamestown and Port Gamble S'Klallam tribes rely on fisheries and shell fisheries for economic, subsistence, and cultural means. Flooding and sediment movement during large storm and snowmelt events can scour riverbeds, harm fish eggs, impact shellfish beds, and alter water chemistry. These events also impact our roads and property. Changes in the timing and frequency of heavy storm events due to a warming climate are likely to make high streamflow events even more severe. Using a detailed modeling framework, PNPTC will provide natural resources managers with extreme flow projections through the end of the 21st century and use these results for vulnerability assessments for select ESA species in 15 watersheds and associated estuaries.

Tribe: Resighini Rancheria **Amount Funded:** \$150,000

Title: *Building Resighini Rancheria Expertise and Data Capacity for Climate Resiliency Analysis and Future Planning*

Project Description: The proposed project seeks to address vulnerability to climate change of important ecological and cultural keystone species of the Resighini Rancheria (Tribe). The project does this by providing training and data development to build the skills and capacity of the Tribe specific to the rocky intertidal areas within our ancestral territory. Partnering with leading marine academic institution, Scripps Institution of Oceanography, and the Tribal Intertidal Digital Ecological Surveys (TIDES), the Tribe will use cutting-edge digital technology to develop 3-D models of the rocky intertidal to advance climate resiliency analysis and future planning. Research goals and species will be based on the tribal community's Indigenous Traditional Knowledge and priorities.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribe: Shinnecock Indian Nation **Amount Funded:** \$100,936

Title: *Heady Creek Shoreline Management Plan Development*

Project Description: The proposed project will provide funds to develop a comprehensive shoreline management plan for the eastern shoreline of the Shinnecock Indian Nation Reservation. The shoreline at risk for sea level rise, flooding and erosion. The plan will help preserve tribal cultural and economic activities.

Tribe: Sitka Tribe **Amount Funded:** \$140,013

Title: *Klag Lake Limnology and Productivity Study*

Project Description: The STA Klag Lake Limnology and Productivity Study will assess the vulnerability of sockeye salmon by developing and implementing monitoring protocols of zooplankton and freshwater environmental parameters of Klag Lake on Chichagof Island in Southeast Alaska. From May to October STA will inventory zooplankton (genus, abundance, and density), once a month and temperature, dissolved oxygen, and euphotic zone depth biweekly at two locations on Klag Lake. This information, in combination with STA's 20-year ongoing stock escapement and in-season subsistence harvest data, will expand management knowledge and subsistence users' preparedness in an important system that is in decline. Trainings and protocols will be presented at the Southeast Environmental Conference for all Tribal partners.

Tribe: Squaxin Island Tribe **Amount Funded:** \$150,000

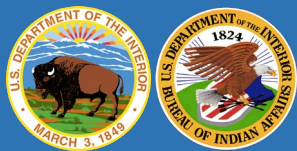
Title: *Future Conditions of Salmon and People; Where Fresh Water Meets Salt Water*

Project Description: The Squaxin Island Tribe is engaged in ongoing efforts to improve and protect Treaty-reserved resources and improve the lives of tribal members. Climate change is projected to result in lower low flows, higher peak water temperatures, and bigger and more frequent floods, due to both changes in peak flows and sea level rise. These changes could have significant impacts for salmon and other fish populations, while also putting key Tribal properties and enterprises at risk. For example, low flows in 2015 dramatically decreased the amount of space that juvenile salmon could occupy in creeks. The late onset of rains in fall 2019 left chum salmon spawning in the thalweg of channels, leaving eggs vulnerable to scour. The purpose of this project is to quantify future changes in streamflow.

Tribe: Swinomish Indian Tribal Community **Amount Funded:** \$149,659

Title: *Promoting Adaptive Management and Resiliency in the Salish Sea Dungeness Crab Fishery: Development of a Genetic and Morphological Population Assessment Model*

Project Description: The Swinomish Indian Tribal Community (SITC) propose to undertake a unique research project examining genetic and phenotypic variability of larval sources and adult stocks of Dungeness crab in the Salish Sea. It is widely thought that the region's crab fishery may be composed of multiple genetic populations. In developing a better understanding of the spatial and temporal contributions of these hypothesized larval sources, SITC will be better able to evaluate current fisheries management strategies from a biologically-based framework. The ultimate goal of the project is to strengthen the exiting fishery and benefit the SITC community by using the best available science to work towards the development of more adaptive management strategies that promote long-term resilience of the fishery.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribes: Tulalip Tribes of Washington **Amount Funded:** \$89,825

Title: *Phase III: Building Resiliency through Sovereign Leadership, training, and Partnership*

Project Description: The Tulalip Tribes propose to establish a self-sustaining Puget Sound Juvenile Fish Monitoring Program that continues the systematic annual offshore marine fish sampling program. The goal is to improve the Tribes' understanding of relationships between climate and prey availability, the early marine growth and survival of juvenile salmon, and better inform understandings of community dynamics of zooplankton and forage fishes throughout the Puget Sound. To do this, the Tribes will lead the effort to conduct offshore marine fish sampling across the Puget Sound and Hood Canal, and work with leading researchers to train Tribal staff in laboratory fish sampling methods, analysis, and reporting.

Tribes: Yakutat Tlingit Tribe **Amount Funded:** \$144,664

Title: *Intertidal Shellfish Assessments to Inform Subsistence Harvest and Climate Change Adaptation Planning*

Project Description: The Yakutat Tlingit Tribe (YTT) proposes to expand upon its ongoing ocean acidification, water quality, harmful algal bloom (HAB), and Traditional Foods programs to include an intertidal ecosystem assessment of three beaches that are actively used for shellfish subsistence harvest near Yakutat. Through these efforts, the YTT will build internal capacity to assess shellfish population trends and develop a robust baseline monitoring program to inform subsistence harvest and climate adaptation planning.

Tribes: Yurok Tribe **Amount Funded:** \$113,850

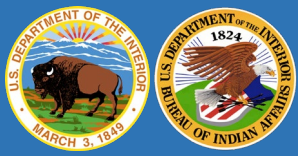
Title: *Coastal Riparian Restoration and Stewardship Planning in the Blue Creek Salmon Sanctuary*

Project Description: The Yurok Tribe will be the primary acting entity for completion of grant deliverables, and work will be conducted on Yurok Tribal lands to benefit a variety of Yurok fish, native plant, and wildlife species. A total of 3,383 local tribal members will benefit from improved conditions, with an additional 2,982 tribal members who may return home to receive these benefits. The benefits to the Chinook and coho salmon, sturgeon, pacific lamprey, eulachon, steelhead, and trout populations will extend to both the Karuk Tribe further upriver in the Klamath River, and the Hoopa Tribe, along the Trinity River, as a major tributary to the Klamath.

Tribal Organization: Southeast Alaska Indigenous Transboundary Commission **Amount Funded:** \$129,343

Title: *Southeast Alaska Ocean Fish Consumption Rates*

Project Description: Southeast Alaska Tribes and communities gather 80% of their foods from the surrounding waters. Water Quality Criteria (WQC) is set by Alaska to assure water is drinkable and fishable. The WQC for over 90 toxins are considered Human Health Criteria since they bioaccumulate in the seafoods. Climate change has increased the levels of these toxins. The WQC are based on estimates of the average fish consumption or value (FCV). Alaska's FCV is set at 6.5gpd. EPA recommends for subsistence populations the FCV be at 142.4gpd. EPA recommends that the FCV be based on local data. The FCV in Oregon and Washington was recently updated to 170gdp. Only 1 survey has been conducted in Alaska, and estimates a FCV of 250gdp. No surveys have been conducted in SE Alaska.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Category 5: Travel Support for Ocean and Coastal Management

Category 5 awards are designed to support travel for tribal leadership or staff participation in, coordination, or training for interagency ocean and coastal spatial planning, including the Great Lakes. They provide support for tribal representatives to attend organizational meetings, working sessions, or official meetings of: Regional Ocean Partnerships (ROP), technical workshops or trainings, or targeted pilot studies or projects.

Number of Awards: 3

Amount Funded: \$44,958

Project Description for All Category 5 Awards: These funds will support direct travel costs for tribal leaders or staff participation in, coordination, or training for interagency ocean and coastal management and planning, including meetings of Regional Planning Bodies.

Tribe: Hoonah Indian Association

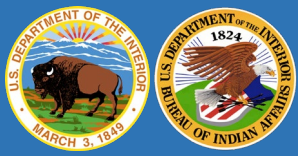
Amount Funded: \$15,000

Tribe: Qawalangin Tribe of Unalaska

Amount Funded: \$14,958

Tribal Organization: Chugach Regional Resources Commission

Amount Funded: \$15,000



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

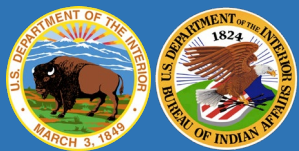
Category 6: Capacity Building

Category 6 awards support tribes with limited technical and staffing capacity to carry out risk scoping activities that can lead to more detailed future adaptation planning proposals. The effort highlights risks and options that may support ways to begin to plan and build greater capacity for resilience, particularly by identifying tribal vulnerabilities and adaptation planning needs. Tribes in this category have not previously received larger awards in award years 2014 through 2020.

Number of Awards: 8

Amount Funded: \$494,386

Tribe:	Cow Creek Band of Umpqua Tribe of Indians	Amount Funded:	\$58,810
Tribe:	Craig Tribal Association	Amount Funded:	\$60,713
Tribe:	Eastern Band of Cherokee Indians	Amount Funded:	\$65,000
Tribe:	Ketchikan Indian Community	Amount Funded:	\$64,941
Tribe:	Pascua Yaqui Tribe	Amount Funded:	\$57,000
Tribe:	Salamatof Tribe	Amount Funded:	\$62,500
Tribe:	Standing Rock Sioux Tribe	Amount Funded:	\$65,000
Tribal Organization:	Chugachmiut	Amount Funded:	\$60,422



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Category 7: Relocation, Managed Retreat and Protect-in-Place Planning

Category 7 awards support tribes facing questions and decisions regarding managed retreat, expansion, protect-in-place, and relocation options due to climate threats from intensifying coastal or riverine erosion, flooding and permafrost degradation impacts, sea level rise, and similar impacts.

Number of Awards: 17

Amount Funded: \$2,374,694

Tribe: Chevak Native Village

Amount Funded: \$145,071

Title: *Riverine Erosion Assessment*

Project Description: Chevak is a Yup'ik community of 1,104 residents located in the Yukon Kuskokwim Delta on a bluff that is subject to the rapid erosion of the Ninglikfak River. Several homes and community buildings are imminently threatened by erosion of the bluff and current mitigation measures are not enough to prevent future damages and keep residents safe. The tribes plans to develop a riverine erosion assessment to predict and address expected climate change impacts in the community. This project will increase the Native Village of Chevak's capacity to develop recommendations for near-term actions and inform long-term planning to protect their community. This project is also a critical step in the effort to protect the people, lives, livelihoods, and cultures of the Native Village of Chevak.

Tribe: Chinik Eskimo Community

Amount Funded: \$132,922

Title: *Resilience Coordinator for Adaptation Planning*

Project Description: Chinik Eskimo Community (CEC) is currently not safe. Due to increasingly severe flooding and erosion, the community of Golovin, AK must relocate all community infrastructure to a site of elevated land adjacent to the community. CEC will hire a full-time Resilience Coordinator that will focus on exclusively on coordinating efforts to protect the community infrastructure and the community. This project will build the Tribal capacity to plan for a safer and healthier future. The Resilience Coordinator will significantly advance adaptation planning and implementation. It will benefit every single member of the community as well as all Tribal programs, all community entities, as well as State and Federal partners.

Tribe: Kasigluk Traditional Elders Council (Native Village of Kasigluk)

Amount Funded: \$145,071

Title: *Erosion Risk Assessment*

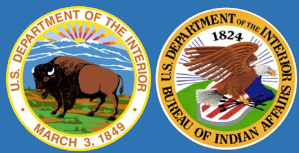
Project Description: Kasigluk, Alaska is a Yup'ik community of 627 residents located on the Johnson River in the Kuskokwim River Delta. Permafrost degradation, flooding, and erosion threatened homes, businesses, and boardwalks. Due to the severity of the threats, we are unsure if we will be able to remain in our current location. We request funding to develop a permafrost vulnerability assessment to predict and address expected severe environmental impacts in our community. This project will increase our capacity to adapt to climate change by developing community-specific data and informing our near-term actions and long-term planning efforts. This project is a critical step in our efforts to protect our people, lives, livelihoods, and culture.

Tribe: Native Village of Deering

Amount Funded: \$149,975

Title: *Preliminary Engineering Report Data Collection*

Project Description: This project addresses erosion impacts to Utica Road, which is used to access the airport, water withdrawal point, and subsistence areas. The road runs parallel to the Inmachuck River and is threatened by accelerating riverine erosion. Native Village of Deering plan to complete data collection and analysis to develop the



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

best long-term solution to the erosion threat. The results of this project will inform the creation of a Preliminary Engineering Report (PER), that will provide recommendations for improving and protecting the road. After this project is completed, the Tribe will be able to access funding from state and federal agencies to construct the community's preferred alternative. This project will preserve access to water and subsistence resources and benefit every resident in Deering, AK.

Tribe: Native Village of Eek **Amount Funded:** \$147,711

Title: *Riverine Erosion and Flood Assessment*

Project Description: This project will engage science and engineering consultants to complete a long-term erosion and flood assessment to forecast what infrastructure will be impacted, when, and support us in developing solutions to mitigate the threats. This project will form the foundation of our long-term adaptation plan, which will guide the community's effort to protect the safety, security, and sustainability of our community. It will benefit 100% of the residents in the small, remote, Tribal community.

Tribe: Native Village of Hamilton **Amount Funded:** \$126,919

Title: *Erosion Protection Final Design*

Project Description: Intensifying riverine erosion threatens the viability of the Native Village of Hamilton (NVH) in its current location. All infrastructure located along the riverbank is threatened including up to 120 structures in the long-term. In order to protect the infrastructure and community, the NVH urgently needs to plan erosion mitigation measures. This project will contract with an engineering consultant to finalize the design of erosion and protection measures that will protect the community's infrastructure. This project builds upon a previous BIA award to the NVH to complete preliminary planning and schematic design. This project will immediately and directly benefit the health, life, and safety of NVH residents by building Tribal capacity to address erosion impacts.

Tribe: Native Village of Hooper Bay **Amount Funded:** \$137,550

Title: *Permafrost Risk Assessment*

Project Description: This project will engage science and engineering consultants to complete a permafrost vulnerability assessment to forecast what infrastructure will be impacted, when, and support us in developing solutions to mitigate threats. This project will form the foundation of the community's long-term adaptation plan, which will guide their effort to protect the safety, security, and sustainability of the community. It will benefit 100% of the residents in the small, remote, Tribal community.

Tribe: Native Village of Kivalina **Amount Funded:** \$141,440

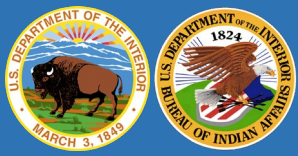
Title: *Erosion Protection Analysis and Design*

Project Description: This project will complete engineering planning and design to construct a rock sea wall to protect the community landfill from eroding into the Chukchi Sea. This project addresses a critical public health issue that benefits 100% of Tribal residents. The community is one of the most threatened by coastal hazards in all of Alaska.

Tribe: Native Village of Kongiganak **Amount Funded:** \$145,071

Title: *Riverine Erosion Assessment*

Project Description: The Native Village of Kongiganak is a traditional Yup'ik community in Southwest Alaska located about 80 miles south of Bethel and approximately three miles from the Bering Sea. Critical community infrastructure including homes, boardwalks, and the bridge to the landfill are imminently threatened by erosion, permafrost



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

degradation, and flooding. Native Village of Kongiganak plans to develop a riverine erosion assessment to predict and address expected severe environmental impacts in the community. This project will increase their capacity to develop recommendations for near-term actions and inform long-term planning to protect the community. This project is a critical step in their efforts to protect the Village's people, lives, livelihoods, and cultures.

Tribe: Native Village of Kwigillingok **Amount Funded:** \$144,352

Title: *Preliminary Engineering Report and Hazard Mitigation Plan*

Project Description: Kwigillingok, Alaska is a Yup'ik community of 374 people located on the western shore of the Kuskokwim Bay near the mouth of the Kuskokwim River. Severe shoreline erosion threatens a critical community bridge and several homes. The project will 1) develop a preliminary engineering report to develop solutions to protect the bridge and 2) complete a Tribal Hazard Mitigation Plan to understand the environmental threats facing our community. This project will increase Tribal capacity to develop recommendations for near-term actions and inform long-term planning to protect our community. This project is a critical step in the community's efforts to protect their people, lives, livelihoods, and culture.

Tribe: Native Village of Kwinhagak (Quinhagak) **Amount Funded:** \$147,880

Title: *Threatened Infrastructure Structural Engineering Assessments*

Project Description: Subsidence due to permafrost degradation impacts virtually every piece of infrastructure in the community. It is the Native Village of Quinhagak's highest priority to address this threat. This project will address the most threatened community infrastructure – the multipurpose building and the Head Start facility – by completing structural engineering assessments of the buildings. The final report will assess the current condition of the building and recommend a long-term solution to protect or relocate infrastructure. This project will benefit all members of the community and develop long-term adaptation strategies for Quinhagak's highest resilience priorities.

Tribe: Native Village of Nelson Lagoon **Amount Funded:** \$148,505

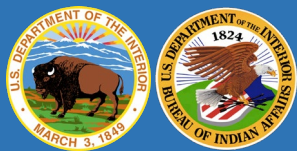
Title: *Relocation Site Suitability Assessment*

Project Description: The Tribal community of Nelson Lagoon may be forced to relocate to another distant site due to increasingly severe coastal erosion caused by climate change. The Native Village of Nelson Lagoon lost 90 feet of land in a November 2020 storm. All of their erosion monitoring stakes and the time-lapse camera used to monitor erosion were claimed by the ocean. This project will engage geotechnical, civil, and hydrogeological engineering experts to evaluate the potential habitability of three potential sites that the community could pursue for long-term relocation. All future planning will be based on the results of this project. All community residents and all Tribal programs benefit from this project.

Tribe: Native Village of Shaktoolik **Amount Funded:** \$112,818

Title: *Storm Surge Monitoring and Rock Source Investigation*

Project Description: This project will conduct an as-built survey of the Native Village of Shaktoolik's storm surge berm to monitor damages from storms, and engage a geologist to assess the feasibility of developing a local rock source, which the community could use to construct a rock sea wall. This project benefits 100% of Tribal members and all Tribal programs.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribe: Native Village of Shishmaref **Amount Funded:** \$149,988

Title: *Erosion Protection Design and Planning*

Project Description: A November 2020 storm caused \$6.5 million of damage to the Native Village of Shishmaref's sanitation road. In some areas, the road and the land beneath it were eliminated. This project will complete, design, planning, permitting, and analysis for a rock revetment structure to protect road and critical facility. If erosion and flooding continue, solid waste, hazardous waste, and sewage will be released into the water. This imminent threat to public health.

Tribe: Pilot Point Tribal Council **Amount Funded:** \$135,000

Title: *Coastal Erosion and Flood Study Protection*

Project Description: Coastal erosion and flooding threaten critical infrastructure essential to the economy, culture, and livelihoods of the communities of Pilot Point, Port Heiden, and Ugashik, Alaska. The community of Pilot Point has one "pseudo" natural harbor located in Dago Creek. Dago Creek is located 4 miles north of the community. This project will complete a study of the long-term coastal erosion and flooding impacts on existing infrastructures located at or near Dago Creek. This study will build upon historical erosion and flood data by engaging civil, structural, and coastal engineers to complete data collection, analysis, and generate a report that provides recommendations to sustain transportation infrastructure that is essential for the three Tribal communities.

Tribe: Tulalip Tribes of Washington **Amount Funded:** \$143,525

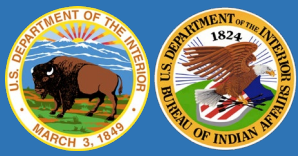
Title: *Coastal Managed Retreat Plan*

Project Description: The Tribe will develop a Tulalip Reservation Coastal Managed Retreat Plan using recently completed retrospective and prospective coastal erosion data along the Tulalip Reservation shoreline. This project will use modeled predictions of coastal erosion to plan for future effects on infrastructure, housing and habitat on the Tribe's coast. This plan will reflect Tulalip Tribal interests by identifying which buildings need to be protected in place, where retreat must happen and where habitat for treaty reserved resources can be protected and restored. The project will benefit multiple departments within the Tribal Government as well as non-tribal coastal residents.

Tribe: Village of Kotlik **Amount Funded:** \$93,896

Title: *Erosion Protection Final Design*

Project Description: This project will finalize the design of erosion protection at the community's landfill. The landfill is threatened by riverine erosion. If impacted, it could spill human and hazardous waste, contaminating Village of Kotlik's subsistence resources and drinking water. This project will benefit every resident in Kotlik and protect community health.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Category 8: Internships

Category 8 awards are designed to support college students, or recent graduates (within one year of at the start of the internship), employment opportunities working within tribal programs or tribal organizations. Internships support integration of tribal climate adaptation planning or ocean and coastal management into programs for the benefit of Tribes.

Number of Awards: 8

Amount Funded: \$348,608

Tribe: Blue Lake Rancheria	Amount Funded: \$44,517
Title: <i>Climate Resilience Internships</i>	

Project Description: Interns will each compile a critical portion of a Climate Adaptation Plan with research and input from key sources. Two internships will be offered each summer for college students or recent college graduates, supervised by the Environmental Director. They will have the opportunity to work with different departments within the tribal government and be introduced to other regional tribal climate planning workgroups and efforts.

Tribe: Hopland Band of Pomo Indians	Amount Funded: \$49,451
Title: <i>Climate Change Warrior Interns 2021</i>	

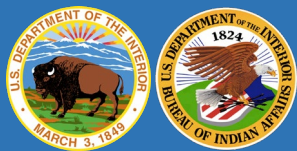
Project Description: The Youth Climate Warrior interns will contribute to achieving the Tribal EPA Program mission of "Preserving and Protecting the Natural Resources of the Hopland Band of Pomo Indians for This and Future Generations" by adding a climate change adaptation element to the program mission. This will be a train the trainer opportunity for the interns, who will both learn about the Tribes' Climate Change Vulnerability and Mitigation Plan, and share the information with the community during outreach events and online through the Tribes' social media.

Tribe: Iowa Tribe of Kansas and Nebraska	Amount Funded: \$49,840
Title: <i>Baxóje Climate Resilience Internship Program</i>	

Project Description: Interns will learn from working on the current efforts of the tribal entities, and also add value by conducting an independent research project on how climate resilience strategies can be incorporated into those efforts. The interns would add capacity to the current scope of work of the tribal entity, who may not currently have climate resilience as a core focus of current staff capacity. They will also infuse a Climate Resilience lens into the following tribal entities: Ioway Tribal National Park, Ioway Bee Farm, Ioway Farms, Soje, and White Cloud Health Center.

Tribe: Qawalangin Tribe of Unalaska	Amount Funded: \$49,401
Title: <i>Climate Resilience Internship</i>	

Project Description: The intern will work with the program managers to understand guiding Unangan values and the goals of each program and to identify future projects for collaboration to support climate resilience priorities across programs. The intern will also conduct youth outreach activities to encourage awareness of locally important climate impacts.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribe: Shinnecock Indian Nation **Amount Funded:** \$18,600

Title: *Shinnecock Indian Nation Internships*

Project Description: The funded intern(s) will work to update the existing Shinnecock Nation Climate Change Adaptation Plan (2013). The new plan will incorporate data that has been collected by Shinnecock Environmental Department over the past 2 years, as well as lessons learned from previous climate adaptation efforts on the reservation.

Tribal Organization: Affiliated Tribes of Northwest Indians **Amount Funded:** \$49,999

Title: *Internship Program for Tribal Early Career Professionals*

Project Description: The two interns funded by this grant will work with ATNI's Tribal Liaison to increase resilience to climatic impacts through adaptation. Interns will work on efforts aligned with their interests helping to build ATNI's network of partners; plan Tribal climate events; participate in site visits to Tribes involved in climate projects, develop skills in Tribal relations, and collaborate with Indigenous youth. They will co-author research and associated literature reviews and more.

Tribal Organization: United South and Eastern Tribes, Inc. **Amount Funded:** \$46,280

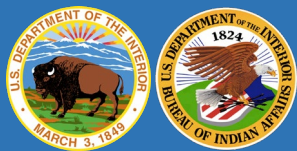
Title: *Office of Environmental Resource Management Interns*

Project Description: The United South and Eastern Tribes Inc. (USET) Climate Resiliency Program under the Office of Environmental Resource Management (USET-OERM) will host two student interns. The student interns will contribute to the Program's mission to provide scientific information and technical support on climate change adaptation to the Tribal Nations and work closely with USET's Tribal Climate Science Liaison, Forest Adaptation Technical Assistant, and Water Technical Assistant Specialist. The interns will keep UET's Tribal Climate Adaptation Resources web page current and assist in providing remote technical support to Tribal Nations working on climate change vulnerability assessments and adaptation plans. The interns will do reporting on Tribal-based climate change resiliency actions and climate change policies impacting Tribal Nations.

Tribal Organization: Yukon River Intertribal Watershed Council **Amount Funded:** \$40,520

Title: *Tribal Resilience Internship*

Project Description: This intern would be hired from YRITWC's partner organization, the University of Alaska's Alaska Native Science and Engineering Program (ANSEP). They would work as a Project Assistant on YRITWC's BIA TCRP Category 3 project, Creating Water Adaptation and Action Plans for the Yukon River Watershed, for two years. They would gain skills in environmental sampling, community-based monitoring, coordination/facilitation of workshops, in addition to travelling to rural regions and networking with Alaska Native leaders.



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Category 9: Youth Engagement

Category 9 awards are designed to support the integration of climate resilience or ocean and coastal management challenges into new or existing youth programs. Awards support tribes or tribal organizations with activities for primary or secondary school-age youth and their engagement in science, technology, engineering or in traditional ecological knowledge education as they relate to and address climate resilience or ocean and coastal management challenges.

Number of Awards: 9

Amount Funded: \$412,192

Tribe: Blue Lake Rancheria

Amount Funded: \$49,985

Title: *Native Youth STEM: Climate Change Restoration Project*

Project Description: Youth will learn about impacts of invasive species and help locate and remove them, replanting Indigenous flora. Participants will learn the scientific method, follow data gathered, and learn reporting methodologies established by the Environmental Services Dept. The data and specimens collected by the students will help inform ongoing plans for restoration, and monitoring the health of tribal lands and waterways, including several creeks and the Mad River.

Tribe: Coeur d'Alene Tribe

Amount Funded: \$50,000

Title: *Climate Resilience Youth Engagement Camp*

Project Description: 30% of the CLIMATE Explorers internship will focus on providing a political and environmental history of the two project sites within the reservation, including the southern Coeur d'Alene Lake and the alpine Crystal Lake; the remaining 70% for the project will focus on climate-focused STEM activities that will help establish community observation sites at these two locations. There will be 10 Tribal youth who will learn about water quality and data collection methods; map and distribution of water potato, a key traditional food; map distribution of invasive species; and learn about the overall ecology of each site.

Tribe: Hoonah Indian Association

Amount Funded: \$49,601

Title: *Establishing Youth Climate Stewardship in Hoonah, Alaska*

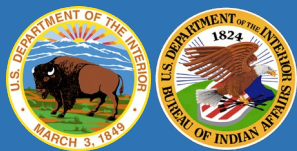
Project Description: Hoonah Indian Association's project follows recommended steps for building youth's ability to adapt to climate change and be stakeholders in the process. The project brings in new partners and leverages previous partnerships, as well as builds on existing programs and establishes some new programming for youth. This grant will result in products and new capacity that the Tribe can leverage into new opportunities, and increase the ability of their Tribal youth and citizens to cope with climate change in the community.

Tribe: Karuk Tribe

Amount Funded: \$50,000

Title: *Uumkun Pa'Aavkam Vuraheesh (future leaders) Project: Strengthening the Next Generation of Karuk Environmental Leadership in Climate Adaptation Planning*

Project Description: This project will provide 250 K-12 youth with knowledge & skills needed to be the next generation of Tribal leaders addressing climate change impacts. To do this, youth will learn to identify & monitor Cultural Indicator Species and assess the Tribe's ecosystem stewardship and restoration efforts. Youth learning will be 25% in-class, 50% in-field, and 25% communication & reflection.



Bureau of Indian Affairs Tribal Climate Resilience Program 2021 Funding Awards Summary

Tribe: Manzanita Band of Diegueno Mission Indians **Amount Funded:** \$49,946
Title: *2021 Tribal Resilience Project*

Project Description: To expand the ongoing program, Manzanita and the Climate Science Alliance seek to develop a Climate Kids Book Club to provide climate science materials and literary resources that can be equitably distributed to and accessed by Tribal youth. The Book Club will be enhanced by several engagement sessions and resource backpacks available for checkout to support approximately 100 students (ages 5-14) in exploring climate change impacts unique to their communities, and provide tools necessary to make educated decisions about how to protect our planet now and in the future.

Tribe: Qawalangin Tribe of Unalaska **Amount Funded:** \$49,948
Title: *Youth Climate Mini-Camp Sessions*

Project Description: The Tribe will offer 2 "Climate Mini-Camp" sessions for youth prior to the annual Culture Camp, Camp Quangaayux. These sessions will focus on climate issues and resilience seen through a cultural lens. The Qawalangin Tribe respects their Elder's choice of subject matter, and hope to engage with 10-20 youth and two Elder mentors in each session.

Tribe: Shinnecock Indian Nation **Amount Funded:** \$18,246
Title: *Climate Change and Culturally Relevant Shellfish Youth Project*

Project Description: This youth engagement project will focus on climate change and culturally relevant shellfish. The youth will learn about the Tribe's use of harvested shellfish and how their survival is threatened by water quality impairment influenced by warming water temperatures and potential ocean acidification. Additionally, the youth engagement will provide Shinnecock youth with the opportunity to help staff continue building the oyster reef, which is an ongoing Tribal project designed to mitigate shoreline erosion.

Tribal Organization: Northwest Indian College **Amount Funded:** \$48,434
Title: *Summer Solar K-12 Youth Engagement Activities*

Project Description: We Share Solar (WSS) is a STEM unit that links the engineering behind solar energy to humanitarian service through building and sharing portable solar electric systems called Solar Suitcases. The program will enhance existing Lummi Nation School curriculum with hands-on activities related to solar energy. Interns recruited from the Pre-Engineering program at Northwest Indian College (NWIC) will present a half-to-full day program using Solar Suitcases as a platform for student learning. One will then be used in a school, youth home or community center where needed.

Tribal Organization: Yukon River Intertribal Watershed Council **Amount Funded:** \$46,032
Title: *Sharing Climate and Watershed Education with Yukon River Tribal Youth*

Project Description: YRITWC will create two Climate & Watershed Education Activity Booklets in 54 Alaska Native villages to explore their watershed and learn about climate-related topics. Booklets will have education on watersheds, climate Traditional Knowledge, and activities to engage locally. 35% of the project will be climate-related and will have related careers. YRIWC aims to print 10,000 booklets, the same number of youth they hope to reach, ages 9-14 years old.



Bureau of Indian Affairs Tribal Resilience Program 2020 Funding Awards Summary

Total Number of Awards: 159

Total Amount Funded: \$14,447,335

Category 1: Trainings and Workshops

To design and host regional or national tribal training(s) or workshop(s) that will assist tribal leaders, program coordinators, planners, and managers in developing the skills necessary to address extreme events and harmful environmental trends by developing tribal adaptation plans, or management options, through in-person and webinar trainings and workshops.

Number of Awards: 13

Amount Funded: \$1,851,937

Tribe:	The Choctaw Nation of Oklahoma	Amount Funded: \$109,444
Title:	<i>Water Availability and Drought Resiliency through RiverWare Trainings and Workshops in the Choctaw Nation</i>	

Project Description: The Choctaw Nation plans to build their tribal capacity through two tasks explained in this proposal. The first is to send two staff in their Water Resources Department to training courses to be fully trained in RiverWare. The second is to host six workshops on the existing Red River RiverWare model, exploring the model's functionality and to provide example RiverWare applications which can support water planning in their territory and beyond.

Tribe:	La Jolla Band of Luiseño Indians	Amount Funded: \$149,981
Title:	<i>La Jolla 2021 Southwestern Tribal Climate Change Summit</i>	

Project Description: The La Jolla Band of Luiseño Indians (La Jolla Tribe) in collaboration with the Pala Band of Mission Indians (Pala Tribe) and Climate Science Alliance (CSA) are committed to working together to build off the momentum and feedback from the 2017 and 2019 Summits to plan and execute the 2021 Southwestern Tribal Resilience Summit (2021 Summit). The 2021 Summit will be focused on Tribal relationships with wildfire, cultural burning, and how we can work towards expanding the dialogue of fire management between Tribal and non-tribal entities. The 2021 Summit will create space for more in-depth discussion on key topics to help participants focus on how we move beyond discussions of impacts and focus on advancing solutions.

Tribe:	Oglala Sioux Tribe	Amount Funded: \$111,833
Title:	<i>Great Plains Tribal Water Alliance Climate Partnership: Development of a Water Resources Workshop for Tribes to Build Technical Capacity to Prepare for and Mitigate Hydrologic Events</i>	

Project Description: The Oglala Sioux Tribe in conjunction with the Great Plains Tribal Water Alliance is submitting this grant proposal for the development of a series of webinars and a workshop to help build technical capacity for the GPTWA and its member Tribes to build resilience against precipitation events. The project will be working closely with University, Local, Regional, and Federal partners to aid in gathering the information.

Tribe:	Orutsararmut Native Council	Amount Funded: \$149,983
Title:	<i>Management Strategy Evaluation for the Kuskokwim Watershed</i>	

Project Description: Orutsararmut will engage Kuskokwim River residents in a series of 3 capacity building workshops focused on Management Strategy Evaluation - aimed at empowering them to contribute constructively to future management decisions for Kuskokwim Chinook salmon. We believe that a better, and broader, understanding of the trade-offs between high, sustainable harvest, and other potentially competing - management objectives will ultimately



Bureau of Indian Affairs Tribal Resilience Program 2020 Funding Awards Summary

lead to fishery policy that represents a better balancing of competing interests and that accounts for risk in a more explicit and transparent manner.

Tribe: Pala Band of Mission Indians **Amount Funded:** \$149,973
Title: *PBMI Tribal Health & Adaptation Multi-modal Training Project*

Project Description: Pala Band of Mission Indian's project will provide valuable human health focused on adaptation planning training, resources, and other support for all tribes throughout the U.S. It will build upon PBMI's health adaptation capacity building efforts, expertise, and growing partner network by providing producing online, on-demand training videos, a live webinar mini-series, an in-person vulnerability summit, presentations at three highly attended tribal conferences, and the ongoing operation of a peer learning community of intertribal trainees.

Tribe: Sitka Tribe of Alaska **Amount Funded:** \$149,306
Title: *Increasing the Resiliency of the Southeast Alaska Tribal Ocean Research Partnership through Climate Risk Management Training*

Project Description: The Sitka Tribe of Alaska formed the Southeast Alaska Tribal Ocean Research (SEATOR) partnership, a network of Tribal governments in Southeast and Southcentral Alaska. STA and SEATOR partners are currently collecting paralytic shellfish toxin and harmful algal bloom data at key community beaches assessed by subsistence harvesters. STA proposes to host two week-long training workshops, each one in 2020 and 2021, for all current and prospective SEATOR partners. The workshops will focus on environmental monitoring and climate change adaptation planning.

Tribes: Ute Mountain Ute, Southern Ute, Ute Tribe **Amount Funded:** \$147,449
Title: *Tri-Ute Climate Adaptation Workshop Series*

Project Description: The Ute Tribal Climate Adaptation Workshop Series will prepare the three federally recognized tribes of the Ute Nation Tribe from the current and future threats from a warming climate. The Ute Tribe, Southern Ute Indian Tribe and Ute Mountain Ute Tribe are connected both culturally and spiritually from time immemorial to today. The three Tribes are all experiencing impacts to their cultural and natural resources. A series of four workshops, held in different locations, will inform the tribes of key issues and components of climate adaptation and implementation.

Tribe: Wind River Inter-Tribal Council **Amount Funded:** \$150,000
Title: *Developing Sustainable Tribal Climate Adaptation through Regional Partnerships with a Climate Change Workshop Under the Leadership of the Wind River Reservation and the Northern Arapaho and Shoshone Tribes*

Project Description: Wind River Inter-Tribal Council's project will provide a workshop for the Rocky Mountain Tribal Region designed to strengthen tribal community adaptation through regional partnerships focusing on weather-readiness, tribal capacity-building, and ecosystem stewardship. The goal of the workshop is to assist tribal leaders, program coordinators, planners, and managers in developing the knowledge and skills necessary to address extreme events and harmful environmental trends. Outcomes of the workshop and the regional planning network include reducing vulnerability to weather hazards and improving an underserved region's ability to cope with extreme events, such as floods and drought.



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Tribal Organization: Aleutian Pribilof Islands Association, Inc. **Amount Funded:** \$150,000

Title: *Regional Adaptation Planning for the Aleutian and Pribilof Islands Region*

Project Description: The Aleutian Pribilof Islands Association, in collaboration with the Qawalangin Tribe and the Tribal Government of St. Paul, proposes to convene tribal partners from the Aleutian and Pribilof Islands Region to discuss strategies for developing a regional adaptation plan and build a template to guide the process. A total of two intensive workshops will be convened with tribal partners to address the regional adaptation plan. Both workshops will include guided facilitation and technical support from partners in the scientific community and other Alaska tribal partners.

Tribal Organization: The Learning Center at the Euchee Butterfly Farm, Inc. **Amount Funded:** \$147,125

Title: *Building Tribal Resilience through Adaptation Planning to Preserve Cultural and Natural Resources*

Project Description: Learning Center at the Euchee Butterfly Farm seeks funding to conduct adaption training for tribes in Oklahoma on how to preserve cultural and natural resources during extreme events. Temperature increases are a harmful environmental trend having deleterious effects on the plants, animals and ecosystems that Native cultures rely on for cultural preservation, and threaten the security of natural resources and food supplies. Geographic and cultural barriers often prevent tribes from accessing the most current climate modeling data, hampering their ability to create plans that adequately encompass the magnitude of adaptation needed to accommodate the scope of rapid temperature increase.

Tribal Organization: Tanana Chiefs Conference **Amount Funded:** \$149,843

Title: *Establishing a Climate Change Advisory Committee to Guide Adaptation Planning for Interior Alaskan Tribes*

Project Description: Tanana Chiefs Conference (TCC) proposes to formalize a climate change advisory committee to guide adaptation planning into the future. As a regional consortium, TCC will apply its expertise in land and resource management, tribal development, community planning and health programs to coalesce perspectives among tribal membership and professional staff into a climate change adaptation planning process. We propose an 18-month project to incorporate those planning processes into TCC's strategic plan.

Tribal Organization: United South and Eastern Tribes **Amount Funded:** \$148,000

Title: *United South and Eastern Tribes: Tribal Climate Change Adaptation Workshop Series*

Project Description: The United South and Eastern Tribes will hold a series of four sub-regional Tribal Climate Change Adaptation Workshops. The goal is to support teams of Tribal Nation delegates to build skills and gather information needed to develop climate adaptation planning. These workshops will be implemented with the assistance of regional Department of the Interior - Northeast and Southeast Climate Adaptation Science Centers and a culturally based Tribal climate change adaptation module known as the Tribal Adaptation Menu (TAM).

Tribal Organization: Upper Snake River Tribes Foundation, Inc. **Amount Funded:** \$139,000

Title: *Tribal Resilience Through Climate Literacy – Preparing Tribal Youth and Communities for Extreme Events by Exploring Harmful Environmental Trends and Mitigation Through Climate Education and Workshops*

Project Description: USRT intends to address one of the greatest challenges facing tribal resource managers: engaging tribal leaders and members in climate-related science and adaptation efforts. Increasing climate literacy among youth



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and tribal members encourages advocacy, helps adapt resilience measures, and increases mitigation capacities of communities through 1) further develop/expand upon USRT's 2019 implemented climate-focused educational youth curriculum for K-12 and expand into more tribal education programs; 2) create interactive, science-based climate literacy community workshops; 3) expand upon/continue on-the-ground tribal resilience projects within each community for training and workshops; and 4) share these resources with others through presentations, webinars, and other formats.

Category 2: Adaptation Planning

To support development of adaptation plans, vulnerability assessments, and development of data analysis efforts (including supplementary monitoring) to address extreme events and harmful environmental trends that impact tribal treaty and trust resources, economies, infrastructure, and human health and welfare.

Number of Awards: 51 **Amount Funded: \$6,753,252**

Tribe: The Bad River Band of Lake Superior Chippewa Tribe	Amount Funded: \$71,527
Title: <i>Adaptation Planning for Mashkiiziibii</i>	

Project Description: In light of a changing climate, the Bad River Band of Lake Superior Chippewa Tribe seeks to conduct a culvert inventory of the Bad River Reservation along with the creation of an accompanying Adaptation Plan utilizing data collected both from the culvert inventory as well as other Council approved documents and plans. This project is in response to extreme flooding events that have occurred on the Reservation as well as projected increases in frequency of extreme flooding events in the future.

Tribe: Big Valley Band of Pomo Indians	Amount Funded: \$150,000
Title: <i>Comprehensive Groundwater and Surface Water Monitoring Program for the Big Valley Groundwater Basin</i>	

Project Description: The BIA funded the first phase of analysis to identify groundwater and surface water trends in the 2015 Water Resource Climate Adaptation Plan on Adobe Creek for the Recovery of Hitch that will be completed this summer. This project are working on the list of the recommendations and data gaps that need to be addressed to save the hitch, which are endemic to Clear Lake. This effort is critically needed as Lake County develops a Groundwater Sustainability Plan (GSP) for the Big Valley Groundwater Basin.

Tribe: Bishop Paiute Tribe	Amount Funded: \$150,000
Title: <i>The Role of Traditional Ecological Knowledge & Cultural Foods Amidst Climate Instability: Adaptation Plan for Stewardship of Pinyon-Juniper Woodlands</i>	

Project Description: Conduct resiliency and adaptation planning to identify and inventory pinyon-juniper woodland sites for tribal stewardship that will enhance long-term health and productivity of selected sites.

Tribe: Chinik Eskimo Community	Amount Funded: \$135,190
Title: <i>Chinik Eskimo Community Adaptation Planning</i>	



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Project Description: The Chinik Eskimo Community (CEC) will conduct planning to guide our efforts to protect critical community infrastructure from a natural disaster. The proposed project will conduct two major activities: 1) Complete a Multi-Jurisdictional Hazard Mitigation Plan that will serve as a long-term mitigation plan and 2) Conduct Migration Master Planning that will guide our community's plan to migrate infrastructure to a new site.

Tribe: Confederated Salish and Kootenai Tribes **Amount Funded:** \$130,536

Title: *Confederated Salish and Kootenai Tribes Adaptation Planning and Community Gatherings*

Project Description: The Confederated Salish and Kootenai Tribes (CSKT) of the Flathead Indian Reservation, located in NW Montana, hold a rich history of collaborative planning for environmental disturbance. The expansion of their Climate Change Strategic Plan to include greater community involvement and youth participation will build climate resilience within reservation lands by improving the preparedness of communities across the reservation and cultivating a new generation of climate leaders. We propose an increase of youth engagement to ensure that resiliency efforts throughout CSKT align with the needs and vision of the generations set to inherit the most severe consequences of the climate crisis.

Tribe: Confederated Tribes of the Colville Reservation **Amount Funded:** \$148,830

Title: *Confederated Tribes of the Colville Reservation Climate Change Adaptation Plan Project 2020*

Project Description: The Colville Tribes Fish and Wildlife Department and Environmental Trust Department will develop a comprehensive Climate Change Adaptation Plan for the Confederated Tribes of the Colville Reservation. This grant would allow us to fully utilize the results of our previous work from completion of a Physical Drivers Report and Vulnerability Analysis, to develop a comprehensive, data driven, CC Adaptation Plan. This grant would further allow us to continue our work in analyzing recent surveys such as the Traditional Ecological Knowledge (TEK), housing, natural resource, infrastructure, and health assessments along with our Comprehensive Emergency Management Plan for inclusion in the CTCR's Climate Change Adaptive Management Plan.

Tribe: Fond du Lac Band of Lake Superior Chippewa **Amount Funded:** \$124,823

Title: *Black Ash Sapflux Study: Climate Change Planning for Protecting Manoomin in Place in a Riverine Community*

Project Description: The Fond du Lac Band of Lake Superior Chippewa will begin a study to determine the effects of baapaagimaak (black ash) loss due to climate change and emerald ash borer on wild rice waters in conjunction with gathering community Indigenous Knowledge to help inform management strategies.

Tribe: Gwichyaa Zhee Gwich'in Tribal Government **Amount Funded:** \$150,000

Title: *Gwichyaa Zhee Gwich'in Flood Data Collection and Analysis*

Project Description: The Gwichyaa Zhee Gwich'in Tribal Government will collect and analyze flood hazard data to support our Tribe in planning effective solutions to persistent and increasingly severe flooding that impacts the entire community.

Tribe: Havasupai Tribe of the Havasupai Reservation, Arizona **Amount Funded:** \$135,504

Title: *Development of a Vulnerability Assessment and Adaptation Plan for the Village of Supai*



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Project Description: The Havasupai Tribe's proposed project is designed to prepare for extreme flood events that impact our resources, infrastructure, and tribal resident health and safety in the Village of Supai on the Havasupai Reservation. The extreme flood events have exhibited increased intensity and frequency in recent years. We live in a roadless village for which most of our tribal income is from visitors to our many spectacular waterfalls, so building tribal resiliency through a vulnerability assessment and adaptation plan will support preserving our structures, cultural sites, fishery, and continue to lure visitors here to maintain our economic base.

Tribe: Hoopa Valley Tribe	Amount Funded: \$145,500
Title: <i>Vulnerability Assessment of Forest Risks to Climate Change and Capacity Building for Adaptation Planning</i>	

Project Description: The Hoopa Valley Tribe will perform a vulnerability assessment of forest risks based on tribal concerns which considers extreme events and long term environmental trends, while increasing tribal capacity to address climate concerns in the future. This project focuses on training, community engagement, and building partnerships that will directly inform a vulnerability assessment and future adaption planning.

Tribe: Keweenaw Bay Indian Community	Amount Funded: \$97,304
Title: <i>Keweenaw Bay Indian Community Climate Resiliency Planning</i>	

Project Description: Keweenaw Bay will develop a Climate Resiliency Plan and incorporate culturally relevant, climate resiliency information from the Keweenaw Bay Indian Community to inform specific climate resiliency strategies into the overarching natural resources guidance document, the Integrated Resources Management Plan (IRMP).

Tribe: Kokhanok Village	Amount Funded: \$102,951
Title: <i>Kokhanok Village Adaptation Planning</i>	

Project Description: The Kokhanok Village wishes to develop an Adaptation Plan using the steps outlined in U.S. Climate Resilience Toolkit. The planning process will include hiring a part-time project coordinator and forming an Adaptation Planning team, defining our community's needs and risks using data gathered through the projects done using our 2019 Tribal Resilience Category 6 funding, identifying possible solutions and investigating our options, educating, prioritizing and putting our plan together to address extreme events and harmful environmental trends in Kokhanok. The goal is to publish an adaptation plan for us to be able to know exactly what actions to take to be a more resilient community.

Tribe: La Posta Band of Mission Indians	Amount Funded: \$125,193
Title: <i>La Posta Band of Mission Indians Climate Change Adaptation Plan</i>	

Project Description: The La Posta Band will develop and adopt a climate change adaptation plan in order to address La Posta's vulnerabilities to increased risks of wildfire, drought, extreme heat, and flooding. These environmental risks can potentially impact La Posta's public health, safety, water and air quality, cultural and natural resources, and critical infrastructure. In this proposal, the La Posta Tribe proposes a range of adaptation goals and strategies to build a sustainable and resilient community through the preparation of emergency, mitigation of damages, and protection of tribal resources.

Tribe: Makah Indian Tribe	Amount Funded: \$145,926
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Title: *Makah Tribe - First Foods Climate Resilience Plan*

Project Description: The overarching goal of this proposed project is to develop a Makah Tribe First Foods Climate Resilience Plan that is targeted, actionable, and grounded in the knowledge and perspectives of the Makah community. Utilizing a First Foods framework, the Makah Office of Marine Affairs, Sophie Trettevick Indian Health Center (STIHC), and the Makah Cultural Research Center (MCRC) will assess climate risk to key cultural first foods and plan for projected climate impacts to ensure the long-term sustainability of Makah culture, traditions, and health.

Tribe: Manzanita Band of Diegueno Mission Indians **Amount Funded:** \$124,892

Title: *Manzanita 2020 Tribal Resilience Project*

Project Description: The Manzanita 2020 Tribal Resilience Project will (1) create a community-led strategy to monitor oak health and identify the possible distribution of two formidable threats in Southern California – Gold Spotted Oak Borer and Shot Hole Borer. (2) Lay the ground work for a planned southern hub for Climate Kids-Tribes resources and training to increase access and availability of climate education for tribes in this area. (3) Create climate-focused videos/materials that help Tribal communities better understand climate science and solutions and plan accordingly.

Tribe: Mashantucket Pequot Tribal Nation (MPTN) **Amount Funded:** \$143,573

Title: *Mashantucket Pequot Tribal Nation (MPTN): MPTN Tribal Climate Vulnerability Risk Assessment*

Project Description: The Mashantucket Pequot Tribal Nation (MPTN) is proposing a project that involves travel and training for climate resilience and vulnerability assessment to plan and develop a Tribal climate vulnerability/risk assessment in conjunction with Southeastern New England Tribes and New York Tribes to the benefit of all regional tribes.

Tribe: Native Village of Elim IRA Council **Amount Funded:** \$149,022

Title: *Tubutulik River Watershed Dissolved Oxygen and Stream Flow Monitoring Risk Assessment*

Project Description: The Native Village of Elim will work with its partners to develop an Temperature, Dissolved Oxygen (DO) and Stream Flow Risk Assessment designed to protect aquatic habitat and subsistence resources in the Tubutulik River Watershed of Alaska. The Assessment will address water flow and temperature data collection and modeling to predict salmon die-offs; protecting critical fish habitat; applying Traditional Ecological Knowledge (TEK); and applications of instream flow water rights, federal trust duty and assisting federal agencies in mitigating impacts of land use activity on critical salmon habitat or where fish species are being impacted by increasing water temperatures or drought.

Tribe: Native Village of Hamilton **Amount Funded:** \$150,000

Title: *Native Village of Hamilton Hydrodynamic Flood Modeling*

Project Description: The Native Village of Hamilton will address the intensifying impacts of flooding by completing hydrodynamic flood modeling. This project was designed with input from technical experts and partners such as the Alaska Native Tribal Health Consortium, the Denali Commission, and the State of Alaska Division of Geological & Geophysical Surveys (DGGS) Coastal Hazards Program, and the Army Corps of Engineers. The assessment will utilize existing baseline data, funded in part by past Tribal Resilience grants in order to forecast the expected future impact of flooding.

Tribe: Native Village of Kivalina **Amount Funded:** \$149,063



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Title: *Native Village of Kivalina Community Coordination and Adaptation Planning for Expansion*

Project Description: Kivalina is one of Alaska's most threatened communities from extreme events and harmful environmental trends. To plan and implement local solutions, and secure support and resources from partners, funders, and government agencies, the tribe will hire an Expansion Coordinator. The Expansion Coordinator will work to ensure that the community's adaptation vision is advanced by contributing to long-term and short-term actions and projects that ultimately lead to both relocating and protecting-in-place all critical and residential infrastructure.

Tribe: Native Village of Kluti-Kaah **Amount Funded:** \$150,000

Title: *Adaption Planning - Community Wildfire Protection Plan for Native Village of Kluti-Kaah*

Project Description: Recent warmer summers, drought, and longer fire seasons have increased the risk of wildfire in Alaska, and this trend is expected to continue. The Native Village of Kluti-Kaah (NVKK) has prioritized wildfire mitigation through hazardous fuels reduction and the creation of defensible space as a top priority and is proposing the planning process that will create a safer, more sustainable community. NVKK will develop a Community Wildfire Protection Plan, a detailed harvest plan, and an emergency management plan. This process will incorporate traditional knowledge and native values to develop a wildfire mitigation strategy that will reduce the risk and prepare the community response for disastrous wildfires.

Tribe: Native Village of Napakiak **Amount Funded:** \$149,971

Title: *Native Village of Napakiak Land Loss Study and Planning*

Project Description: Due to extreme erosion threats of the Kuskokwim River, Napakiak is being forced to retreat to a safer location. NVN requests TRP funding to conduct: 1) a riverine morphology study to predict the future rate and extent of erosion on the river to guide all community planning; and 2) a structural engineering analysis of structures at imminent risk to guide managed retreat planning. This project will combine science from the river study with local traditional knowledge to improve the Tribe's capacity for managing the retreat.

Tribe: Native Village of Noatak **Amount Funded:** \$150,000

Title: *Native Village of Noatak Immediate Action Planning for Permafrost-Induced Land Collapse*

Project Description: Native Village of Noatak will perform a community-wide permafrost assessment to inform immediate action planning to avoid the catastrophic loss of the community's water and sanitation system from permafrost-induced land collapse as well as advance long-term planning. We will also complete our first ever hazard mitigation plan.

Tribe: Native Village of Nunapitchuk **Amount Funded:** \$145,071

Title: *Native Village of Nunapitchuk Erosion Impact Assessment*

Project Description: Nunapitchuk is a Yup'ik Eskimo village located in southwestern Alaska, 22 miles northwest of Bethel, Alaska, in the Yukon-Kuskokwim Delta, near the Bering Sea. The community may have no alternative but to relocate to another site due to erosion, permafrost degradation, and flooding. We will develop a riverine erosion assessment to predict and address expected severe environmental impacts in our community. This project will increase our capacity to develop recommendations for near-term actions and inform long-term planning to protect our community.

Tribe: Native Village of Shaktoolik **Amount Funded:** \$150,000

Title: *Storm Surge Resilience Planning*



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Project Description: Due to the severity and urgency of the storm surge threat that Native Village of Shaktoolik faces, it is critical that the Village hires a Community Resilience Coordinator position solely dedicated to planning our response to coastal hazards.

Tribe:	Native Village of Shishmaref	Amount Funded:	\$140,204
Title:	<i>Sea Ice and Storm Surge Impacts to Community Water Source Adaptation Plan</i>		

Project Description: Declining sea ice and increasing storm surge threaten Native Village of Shishmaref's sole source of drinking water. This project will collect data and develop an adaptation plan for how to preserve our access to clean water for the benefit of the entire community so we can continue to live here.

Tribe:	Nez Perce Tribe	Amount Funded:	\$144,460
Title:	<i>Seeds of Sovereignty – Planning for Food & Security and Cultural Survival in a Changing Landscape</i>		

Project Description: The NPT Resilience Program is proposing a project that will assist in food and energy sovereignty planning for the Tribe and Lapwai Valley. The proposed project builds upon other efforts, and capitalizes on existing capacity. A diverse group of advocates for the community garden and for gathering and traditional foods have offered support and suggestions for this project. We are proposing to prepare a food map, and a conceptual food trail design that weaves gardens, native plant areas, future solar projects, and sustainability into a cohesive whole.

Tribe:	Pala Band of Mission Indians	Amount Funded:	\$143,265
Title:	<i>PBMI Scaling Up SoCal Intertribal Resilience Data Development Project</i>		

Project Description: Pala Band of Mission Indian's project will support tribes locally, statewide, and nationally in the development, analysis, and supplementary monitoring of replicable epidemiological and other datasets for adaptation planning and resilient decision-making, increasing the capacity of tribes to prepare for health and other impacts of extreme events and harmful environmental trends. Working collaboratively with six tribes in SoCal and national experts, this project will build broad applicability and use of valuable tribal health and resilience data solutions.

Tribe:	Paskenta Band of Nomlaki Indians	Amount Funded:	\$82,150
Title:	<i>Paskenta Band of Nomlaki Indians Climate Change Adaptation Plan</i>		

Project Description: The Paskenta Band of Nomlaki Indians (Paskenta) will develop a Climate Change Adaptation Plan. This project builds off a Tribal Climate Vulnerability Assessment being completed by Paskenta that analyzes climate change impacts that may adversely affect the Tribal infrastructure and economy. The Adaptation Plan will develop actionable strategies that when implemented, will allow the Tribe to be more resilient in the face of extreme environmental events.

Tribe:	Pokagon Band of Potawatomi Indians	Amount Funded:	\$75,600
Title:	<i>Understanding Plant Distribution in Climate Refugia on Tribal Lands to Inform Adaptation Planning for Culturally Important, Vulnerable, and Rare Plants</i>		

Project Description: The Pokagon Band of Potawatomi Indians proposes to conduct botanical surveys on tribal properties containing microhabitats that appear to be refugia for climate-vulnerable plants. These surveys as well as input from tribal Elders will allow the Pokagon Band to build toward planning and monitoring initiatives to keep these culturally important, vulnerable, and rare plants on tribal properties. This project builds on a 2016 Tribal Resilience Program capacity building grant during which the the Pokagon Band Department of Natural Resources learned that plants citizens are gathering are vulnerable to climate change and becoming rarer within the region, and that some tribal properties appear to be refugia for some climate-vulnerable plants.



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Tribe: Puyallup Tribe of Indians **Amount Funded:** \$150,000
Title: *Puyallup Tribe of Indians Land Use and Adaptive Resiliency Strategy Plan*

Project Description: This project will support the Puyallup Tribe in prioritizing discovery of the impacts of climate change and rising sea levels, as well as adaptation strategies for treaty-protected land within the Port of Tacoma, the Puyallup River valley, and other natural resources and future economic development. This project will also enhance the capacity of inter-tribal collaboration for regional planning.

Tribe: Qawalangin Tribe of Unalaska **Amount Funded:** \$149,143
Title: *Qawalangin Tribe Adaption Plan*

Project Description: Qawalangin Tribe will develop our adaptation planning process and produce an updated Adaptation Plan. We will build on knowledge gained from recent convenings and ongoing work by neighboring Tribes. We will synthesize research and traditional knowledge to define emerging threats from rapid climate change, and establish a framework for adaptation planning that we will continue to build upon in the future.

Tribe: Quinault Indian Nation **Amount Funded:** \$45,000
Title: *Increasing Resilience in Tribal Forests by Increasing Disease Tolerance*

Project Description: QIN wishes to collect data from three Douglas-fir stands that have been planted with families of Douglas-fir that are thought to be tolerant to the disease and may help offset the damage cause by the SNC epidemic in coastal forests. QIN has been working with many partners over the years as the epidemic has increased in range. Data collected will help identify SNC tolerant species and allow forest managers to convert their seed sources to disease tolerant families.

Tribe: Rosebud Sioux Tribe **Amount Funded:** \$141,981
Title: *Rosebud Sioux Tribe Climate Adaptation Plan*

Project Description: The Rosebud Sioux Tribe will engage in a 2 year climate adaptation planning process to achieve several objectives. 1: Better understand, plan, and prepare for the ways in which climate change will impact the Rosebud Reservation and members of the tribe. 2: Engage with tribal departments, elders, youth groups, and all relevant stakeholders to understand their concerns about climate change and educate and inform them of the issues at stake and what the tribe is doing about it. 3: Establish the infrastructure for climate change action so that the tribe can continue to work towards a resilient future with the next generation of climate leaders building off this work. 4: Share best practices for other tribes to follow in our footsteps and to learn from our experience.

Tribe: Sac and Fox Nation **Amount Funded:** \$150,000
Title: *Sac and Fox Nation's Public Health Vulnerability Assessment and Sustainability Plan*

Project Description: Sac and Fox Nation's proposed project would examine how climate affects Public Health, identify vulnerable populations/zones, impacts affecting access to health care and to what extent, identify measures to sustain access to care during floods, wildfires, or other weather extremes, and issues such as increased vectors for diseases. Analysis of the vulnerabilities and impacts will determine potential response and mitigation strategies, and ongoing outreach. The plan will provide tools useful to individuals, communities, and leadership to not only sustain, but improve public health.

Tribe: Saint Regis Mohawk Tribe **Amount Funded:** \$144,000



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Title: *Native Seeds Adaptation Planning*

Project Description: The Saint Regis Mohawk Tribe will create a Native Seeds Adaptation Plan that will include the planning and research necessary to start a 'Living Community Seed Bank' that is relevant to the threats and needs of the Akwesasne community. The adaptation plan will focus on species of concern for Akwesasne, as defined by a community survey to identify culturally significant plant species or species of community interest. The adaptation plan will largely incorporate Traditional Ecological Knowledge to strengthen the relationship that exists between the land and the people of Akwesasne, and increase resilience to protect the cultural identity of the Mohawks by preserving species used for traditional foods, medicines, art, and ceremony.

Tribe: Samish Indian Nation **Amount Funded:** \$145,500

Title: *Sea Level Rise and Ocean Temperature/Acidification Impacts to Critical Kelp Habitat and Tribal Natural Resources*

Project Description: This project proposal will expand on the previous (and ongoing) work of the Samish Adaptation and Resilience Initiative, but with a narrow focus on specific planning efforts. Specifically, it will integrate the efforts of the Samish Planning Department and Samish Department of Natural Resources to fold climate change resiliency into the Samish Facilities Plan and the Samish Hazard Mitigation Plan being developed over the next year. These plans will provide a template for future planning efforts culminating in the Samish Comprehensive Plan.

Tribe: San Pasqual Band of Diegueno Mission Indians **Amount Funded:** \$142,800

Title: *San Pasqual and Rincon Joint Adaptation Planning Project*

Project Description: San Pasqual and Rincon Joint Adaptation Planning Project will develop comprehensive vulnerability assessments and adaptation plans for San Pasqual and Rincon that prepare our communities for extreme events and harmful environmental trends that impact our treaty and trust resources, economies, infrastructure, human health, and public safety.

Tribe: Santa Ynez Band of Chumash Indians **Amount Funded:** \$134,384

Title: *The Santa Ynez Band of Chumash Climate Change Vulnerability Assessment*

Project Description: The Santa Ynez Chumash Environmental Office proposes to develop a climate change vulnerability assessment to identify and evaluate climate change impacts to the Santa Ynez Band of Chumash Mission Indians. Climate Change adaptation planning is critical for the Tribe's economic, environmental, and cultural security across the traditional Chumash territory and within lands managed by the Santa Ynez Chumash. The objective of the Santa Ynez Chumash vulnerability assessment is to identify specific climate change threats to physical structures, economic assets, and public safety institutions managed by the Santa Ynez Chumash.

Tribe: Seneca Nation of Indians **Amount Funded:** \$123,200

Title: *Climate Resiliency - Category 2 - Tribal Resilience Program*

Project Description: The Seneca Nation recognizes that training and learning current methodology are necessary to address these issues. The Seneca Nation is to become an active leader and partner in planning for, adapting and responding to the effects of our changing environment. The goal of this grant is to restore, protect, and enhance our natural resources through climate adaptation planning and to establish strong working relationships with local, regional, federal agencies and Native agencies/programs that can provide support and guidance on Climate Resilience and Mitigation adaptation, planning and implementation.



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Tribe: Swinomish Tribal Community **Amount Funded:** \$150,000

Title: *Swinomish Climate Change Adaptation Plan Update for 2021-2030*

Project Description: The project will update the Swinomish Climate Change Adaptation Action Plan to reflect the productive work Swinomish has done in accordance with the original 2010 Action Plan, incorporate new climate and sea level rise research/projections, include new input from the Community, develop a Climate Change Community Engagement Tool-Kit, and provide for an annual Climate symposium to discuss current issues and provide outreach and educational materials to the Community. The Protect Mother Earth Subcommittee, will resume their role as lead entity to coordinate the work across involved Swinomish Tribal Government departments and with the Community at-large.

Tribe: Tolowa Dee-ni' Nation **Amount Funded:** \$149,747

Title: *Building Tolowa Dee-ni' Nation Capacity to Monitor and Analyze Marine Indicators of Climate Change*

Project Description: The proposed project, Building Tolowa Dee-ni' Nation Capacity to Monitor and Analyze Marine Indicators of Climate Change, will conduct baseline ocean water chemistry monitoring and develop environmental indicators of climate change for the Tolowa Dee-ni' Nation. This project will collect water quality data that can aid assessment of a State-designated marine protected area, and be used for long-term water quality monitoring to assess climate change impacts on surf smelt and other trust marine resources. The project will allow the Nation to collaborate with the Central and Northern California Ocean Observing System and Northwest Association of Networked Ocean Observing Systems.

Tribe: Tulalip Tribes of Washington **Amount Funded:** \$122,246

Title: *Tulalip Tribes Continued Health Resilience with Extreme Events and Harmful Environmental Trends*

Project Description: Tulalip Tribes will develop a program to enhance the resilience of our health services by adapting health service delivery to extreme event and harmful environmental trends. We have outlined specific steps for creating a system for identifying, monitoring and adapting health service delivery actions and indicators to a changing environment. Steps include: a workshop to convene Tribal health professionals to identify areas where health services are affected by environmental trends; a survey of scientific literature and surrounding agencies to identify actions; identify gaps where no actions have been identified; implementation and monitoring of actions and indicators; finally, create an extreme events dashboard on our website allowing real-time information delivery to people at risk.

Tribe: Twenty-Nine Palms Band of Mission Indians **Amount Funded:** \$63,311

Title: *Research, Outreach, and Training for the Development of a Cultural Resources Adaptation Plan*

Project Description: The Twenty-Nine Palms Band of Mission Indians proposes to initiate a planning process aimed towards developing and prioritizing management strategies to preserve climate-sensitive cultural resources on the Reservation and ancestral territories. This process will consist of research, field assessments, outreach, and training, all to be performed by staff from the Tribal Historic Preservation Office and Tribal Environmental Protection Agency. Project staff will rely on both western science and Traditional Ecological Knowledge to guide this effort. This project would provide the Tribe with the essential information and tools to develop a draft Cultural Resource Climate Adaption Plan that will increase the Tribe's resilience when faced with climate change impacts to cultural resources.

Tribe: Village of Alakanuk **Amount Funded:** \$150,000

Title: *Village of Alakanuk Flood and Erosion Hazards Assessment*

Project Description: The Village of Alakanuk will perform an assessment of flood and erosion hazards to our community and to increase our Tribe's capacity to plan for and mitigate these hazards. The proposed activities will collect essential data to



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assess erosion and flooding hazards and develop a plan that will serve as the foundation for our community's strategic planning efforts to mitigate near-term and long-term risk.

Tribe: Village of Chefnak **Amount Funded:** \$138,430
Title: *Village of Chefnak Permafrost Assessment for Advancing Adaptation*

Project Description: Village of Chefnak - is actively pursuing an adaptation strategy that ensures life can continue in the community due to damage threats from environmental impacts. Depending on the rate of risk and integrity of local infrastructure, it will be protected, relocated, or decommissioned and rebuilt. In order to understand the effects of a thawing ground, infrastructure must be individually assessed, the land must be evaluated, and future climate situations must be estimated. This project will conduct a professional engineering Permafrost Assessment to answer these questions and inform the tribe's imminent permafrost degradation decisions.

Tribe: Village of Kotlik **Amount Funded:** \$148,110
Title: *Village of Kotlik Adaptation Planning*

Project Description: The Village of Kotlik will increase our Tribe's capacity to plan for intensifying erosion and flooding. This project will conduct the following activities: 1) Continue to fund a full-time Resilience Coordinator with the Tribe and 2) Contract with an engineering services contractor for technical and planning assistance.

Tribe: Walker River Paiute Tribe of the Walker River Reservation, Nevada **Amount Funded:** \$69,173
Title: *Vulnerability Assessment of Water Users on Reservation*

Project Description: Develop and complete Vulnerability Assessments of water users on the reservation including: public water system users, farmers, cattlemen, recreation and the Walker River. This project is to collect data to be used in the Vulnerability Assessment. The planning process must use the Vulnerability Assessment of each of the reservation water users.

Tribe: Yurok Tribe **Amount Funded:** \$150,000
Title: *Developing a Restoration Plan for Reestablishing Vulnerable Prairie Systems in Support of Environmental and Cultural Resiliency*

Project Description: The Yurok Tribe Natural Resource Division will coordinate a landscape restoration working group with the goal of developing a short and long term adaptation plan and restoration program for a culturally and ecologically critical prairie, oak woodland savannah, or wet meadow.

Tribal Organization: Affiliated Tribes of Northwest Indians **Amount Funded:** \$149,787
Title: *2021 Tribal Climate Adaptation Planning Camp*

Project Description: ATNI, in collaboration with the NW Climate Adaptation Science Center, the University of Washington Climate Impact Group, and BIA Northwest Region will jointly design and host the 5th annual Northwest Climate Adaptation Planning Camp. The Camp will provide adaptation and vulnerability assessment planning support to ATNI tribal leaders, Tribal climate change coordinators, and health, education, natural resources, public works program managers, elders and tribal citizens to build skills and gather information needed to coordinate and implement the Tribal Adaptation Planning process.

Tribal Organization: Chugach Regional Resources Commission **Amount Funded:** \$149,872



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Title: *Developing a Climate Change Adaptation and Mitigation Strategies using a Robust Vulnerability Matrix for Southcentral Alaska Tribes*

Project Description: This funding request will support the final phase of CRRC's 3-phase adaptation planning process. We completed Phase I - regulatory and resource assessment and are currently completing Phase II - vulnerability assessment. In Phase III, we will develop adaptation and mitigation strategies based off vulnerability matrix outputs, leading to a regional adaptation plan responsive to Tribal needs and the development of tools to assist Tribes with creating additional adaptation strategies.

Tribal Organization: Copper River Native Association **Amount Funded:** \$126,013
Title: *Copper River Resilience: A Regional Adaptation Plan*

Project Description: This project would allow communities in the Copper River Valley region to collaborate to identify, assess, plan for, and adapt to extreme climate events and harmful environmental trends that impact local and tribal resources, economics, infrastructure, and human health and safety. This is an important effort to anticipate and plan for future changes in the climate to ensure the protection of environmental health and human health and safety. We are committed to striving towards resilience and management planning and working together across the region to meet the goals of the project.

Category 3: Travel Support for Adaptation Planning

Designed to provide access to training and technical workshops that help maintain or build adaptation knowledge and skills for resilience against impacts of extreme events and harmful environmental trends. Awards support for tribal leaders and staff to attend training(s) or workshop(s) or to participate in cooperative resilience and adaptation efforts.

Number of Awards: 41 **Amount Funded:** \$558,984

Project Description for All Category 3 Awards: Funding will provide travel support and access for tribal leaders, tribal members, and tribal staff to attend workshops, trainings, or meetings associated with building adaptation knowledge and skills for resilience against the impacts of extreme events and harmful environmental trends that impact treaty and trust resources, economies, infrastructure, human health and tribal welfare. This may include training and technical workshops to ensure tribal voices are included and other practitioners benefit from tribal participation in training, research, and cooperative implementation. This does not include salary costs or international travel.

Tribes: Akiak Native Community **Amount Funded:** \$14,788

Tribes: Alabama-Coushatta Tribe of Texas **Amount Funded:** \$14,817

Tribes: Aroostook Band of Micmacs **Amount Funded:** \$15,000



Bureau of Indian Affairs Tribal Resilience Program 2020 Funding Awards Summary

Tribe: Burns Paiute Tribe	Amount Funded: \$14,493
Tribe: Cheyenne and Arapaho Tribes	Amount Funded: \$8,477
Tribe: Confederated Tribes of the Colville Reservation	Amount Funded: \$14,380
Tribe: Hoopa Valley Tribe	Amount Funded: \$15,000
Tribe: The Hopi Tribe	Amount Funded: \$14,820
Tribe: Jamestown S'Klallam Tribe	Amount Funded: \$6,420
Tribe: Klawock Cooperative Association	Amount Funded: \$13,783
Tribe: Kokhanok Village	Amount Funded: \$14,009
Tribe: Koyukuk Native Village	Amount Funded: \$13,703
Tribe: Lummi Indian Business Council	Amount Funded: \$13,253
Tribe: Mashantucket Pequot Tribal Nation	Amount Funded: \$14,895
Tribe: Native Village of Elim	Amount Funded: \$14,547
Tribe: Nez Perce Tribe	Amount Funded: \$14,913
Tribe: Nooksack Indian Tribe	Amount Funded: \$14,995
Tribe: Nulato Village	Amount Funded: \$14,573
Tribe: Orutsarmiut Native Council	Amount Funded: \$14,955
Tribe: Prairie Band Potawatomi Nation	Amount Funded: \$14,770



Bureau of Indian Affairs Tribal Resilience Program 2020 Funding Awards Summary

Tribe: Qawalangin Tribe of Unalaska **Amount Funded:** \$14,982

Tribe: Quapaw Tribe of Oklahoma **Amount Funded:** \$12,072

Tribe: Rosebud Sioux Tribe **Amount Funded:** \$13,947

Tribe: Saint Regis Mohawk Tribe **Amount Funded:** \$14,965

Tribe: Santa Ynez Band of Chumash Indians **Amount Funded:** \$14,000

Tribe: Santo Domingo Tribe (Kewa Pueblo) **Amount Funded:** \$14,010

Tribe: Sauk-Suiattle Indian Tribe **Amount Funded:** \$6,057

Tribe: Seneca Nation of Indians **Amount Funded:** \$14,401

Tribe: Shinnecock Indian Nation **Amount Funded:** \$15,000

Tribe: Squaxin Island Tribe **Amount Funded:** \$12,677

Tribe: Stillaguamish Tribe of Indians **Amount Funded:** \$9,163

Tribe: Tuolumne Band of Me-Wuk Indians **Amount Funded:** \$13,770

Tribes: Ute Mountain Ute Tribe, Southern Ute Tribe, Ute Tribe **Amount Funded:** \$14,322

Tribe: Walker River Paiute Tribe **Amount Funded:** \$14,113

Tribal Organization: Aleutian Pribilof Islands Association, Inc. **Amount Funded:** \$14,985

Tribal Organization: Affiliated Tribes of Northwest Indians **Amount Funded:** \$14,891

Tribal Organization: Chugach Regional Resources Commission **Amount Funded:** \$15,000



Bureau of Indian Affairs Tribal Resilience Program 2020 Funding Awards Summary

Tribal Organization: The Learning Center at the Euchee Butterfly Farm, Inc **Amount Funded:** \$14,850

Tribal Organization: Native American Fish and Wildlife Society **Amount Funded:** \$15,000

Tribal Organization: Valdez Native Tribe **Amount Funded:** \$9,191

Tribal Organization: Yukon River Inter-Tribal Watershed Council **Amount Funded:** \$14,997

Category 4: Ocean and Coastal Management

To support ocean and coastal management planning, marine spatial planning, coastal adaptation/resilience analysis, and cooperative marine resource plans. Funding should build tribal capacity and can be used to assist with a tribe's efforts to restore and provide resilience of coastal resources, perform inventories or vulnerability assessments, identify monitoring protocols and critical indicator species, or implement a unique pilot study or project that would advance tribal resilience, adaptation, or ocean and coastal management knowledge.

Number of Awards: 14

Amount Funded: \$2,079,154

Tribe: The Bad River Band of Lake Superior Chippewa Tribe **Amount Funded:** \$145,000

Title: *Bad River Tribe Flood Vulnerability Assessment*

Project Description: The Bad River Band will contract with USGS to collect and analyze Denomie Creek data for 2 years. The data collection will ultimately create hydraulic modeling and flood inundation mapping, and flood library maps. The Tribe will also contract to have a shoreline erosion assessment completed along the Lake Superior Shoreline. Additionally, the reports will help the community in developing recommendations for addressing pre-disaster mitigation measures for extreme events and will provide guidance on long term community planning.

Tribe: Hoonah Indian Association **Amount Funded:** \$147,939

Title: *Restoring Alaska Native Voices in Subsistence Fisheries Planning & Management*

Project Description: Changing ocean conditions threaten vulnerable marine-dependent communities and subsistence fisheries. Hoonah Indian Association will build the capacity of the tribe and increase indigenous engagement on all scales of coastal resource management to plan for the harmful impacts of oceanic change on indigenous marine-dependent communities. We will build on past efforts to investigate options, plan and prioritize to increase the resilience of tidal wetlands, seagrass communities, and kelp forests that support traditional resources.

Tribe: Hoopa Valley Tribe **Amount Funded:** \$149,759

Title: *Hatchery Plan to Mitigate Coho Salmon Extirpation in the Lower Trinity River of California*

Project Description: The Hoopa Valley Tribe will develop a mitigation effort on the Trinity River in Northern California due in part to climate change impacts. Due to the diminishing Coho Salmon abundance in Hoopa Valley Reservation tributaries of the Lower Trinity River, the Hoopa Valley Tribal Fisheries Department seeks to mitigate the decreased Coho abundance by developing a hatchery program on the Hoopa Valley Reservation. In addition to the hatchery program, improvements and restoration work completed on the tributaries of the Hoopa Valley Reservation will be monitored to ensure adequate spawning sites for returning hatchery origin Coho, as well as providing suitable



Bureau of Indian Affairs Tribal Resilience Program 2020 Funding Awards Summary

habitat for returning natural origin Coho. The proposed action plan is for implementing Phase 1 of an ongoing program.

Tribe: Klawock Cooperative Association **Amount Funded:** \$149,821

Title: *Assessing Vulnerability of Amnesic Shellfish Poisoning in Subsistence Shellfish Resources*

Project Description: The Klawock Cooperative Association (KCA) has a vested interest in protecting traditional and subsistence resources and the health of tribal citizens in their ancestral territory. SEATOR partners currently monitor local beaches for harmful algal bloom species, paralytic shellfish toxins (PSTs), and threats related to changing ocean chemistry. This proposed project will fill the data gap of this emerging toxin. It will provide baseline information that can be used to make management decisions to reduce the risks of human health impacts or illnesses.

Tribe: Makah Indian Tribe of the Makah Indian Reservation **Amount Funded:** \$149,928

Title: *Research of marine mammals to inform Makah coastal management planning*

Project Description: Makah Indian Tribe seeks to improve our understanding of the role of Steller and California sea lions in the marine ecosystem. Of particular interest is the impact the populations have on commercially and culturally important fish populations. We plan to monitor sea lion abundance and to conduct a bioenergetics model to determine how much fish the sea lions remove by species and to forecast future impacts based on trends in population growth. Second, we plan to continue a long-term research project on gray whale health because gray whales are sentinels of ocean health.

Tribe: Organized Village of Kake **Amount Funded:** \$148,124

Title: *Organized Village of Kake "2020 Subsistence Adaptation Plan"*

Project Description: The Organized Village of Kake will achieve its goals for community well-being and healing, environmental stewardship, conservation, and co-management of our traditional subsistence use areas and resources. The effects of climate change including drought, warming water temperatures, and ocean acidification are having a severe detrimental impact on food security for our people. Ocean and Coastal Management Planning funds will allow the Tribe to identify monitoring protocols for critical indicator species; develop a "guardian program" to gather data on ocean acidification and paralytic shellfish poisoning; and implement a Subsistence Adaptation Plan, so that subsistence food gathering can continue and food security can be ensured.

Tribe: Quinault Indian Nation **Amount Funded:** \$149,000

Title: *Quinault Indian Nation Archaeological Site Mapping and Survey Project*

Project Description: This Washington coastline, with its steep terrain and limited ocean access, is one of the most vulnerable to erosion. Quinault Indian Nation has not performed many archeological assessments of on- or off-reservation cultural resources. Assessments of traditional archeological sites would provide valuable information about historic cultural practices and approaches allowed QIN ancestors to adapt to changing environments.

Tribe: Samish Indian Nation **Amount Funded:** \$150,000

Title: *Sea Level Rise and Ocean Temperature/Acidification Impacts to Critical Kelp Habitat and Tribal Natural Resources*

Project Description: Samish Indian Nation will expand on the previous (and ongoing) work of the Samish Adaptation and Resilience Initiative, but with a narrow focus on specific coastal resources. Specifically, it will look at critical and



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culturally significant kelp forests in Samish Traditional Territory to assess how sea level rise and changes in temperature and acidification will impact critical kelp forest habitat and the abundant natural resources this habitat supports. Deployed monitoring equipment and dive surveys will be utilized to fill critical data gaps identified by partners in the multi-jurisdictional Kelp Recovery Working Group.

Tribe: Seminole Tribe of Florida

Amount Funded: \$150,000

Title: *Seminole Tribe of Florida Ocean and Coastal Management Planning*

Project Description: The proposed area in Broward County Florida is the Hollywood Seminole Indian Reservation of the Seminole Tribe of Florida (Tribe). FEMA categorizes the Hollywood Seminole Indian Reservation as high risk of flooding potential. The primary outcome of the project will be to give Tribal Government and the Tribal community adequate information to examine their plans for preparedness and reallocate resources as necessary to protect the property, resources and health of its members.

Tribe: Squaxin Island Tribe

Amount Funded: \$150,000

Title: *Squaxin Island Tribes' Real-time Response to Ocean Acidification*

Project Description: Squaxin Island Tribe will 1) evaluate water quality conditions related to ocean acidification and its impacts to shellfish, 2) explore local mitigation strategies for culturally important shellfish beds that are being impacted by OA, and 3) Develop an OA Response Plan. This project will position the tribe to respond to effects of OA quickly and reduce loss to the Tribe's shellfish enhancement investments and cultural resources. As a result of our work, a strategy will be developed in the form of a written plan, to sustain the Tribe's shellfish resource.

Tribe: Swinomish Indian Tribal Community

Amount Funded: \$144,033

Title: *Fisheries Assessment of native habitat restoration to improve resilience of coastal ecosystems*

Project Description: Swinomish Tribe and partners will compile a novel dataset describing the ecosystem services provided by restored native oyster beds. Traditionally, Olympia oysters played an important economic, ecological, and cultural role in the Pacific Northwest but today their populations are ~5% of historic numbers. Because oysters are ecosystem engineers, the restoration of this species should also reestablish natural community structure. Our research will: (1) quantify spatial and temporal ecological change associated with habitat restoration, (2) improve shoreline management plans, and (3) promote the use of multi-species habitat restoration as an adaptation planning tool for coastal resiliency decision-making.

Tribe: Tolowa Dee-ni' Nation

Amount Funded: \$149,747

Title: *Building Tribal Capacity For Xaa-wvn'-taa-ghii~li~ (Smith River) Hydroacoustic Lhuk (Salmonid) Adult Enumeration, Sri'-sree-nvsh (seal) and Ch'an'-t'in (sea lion) Population Estimates*

Project Description: The proposed project, Building Tribal Capacity for Xaa-wvn'-taa-ghii~li~ (Smith River) Hydroacoustic Lhuk (Salmonid) Adult Enumeration, Sri'-sree-nvsh (seal) and Ch'an'-t'in (sea lion) Population Estimates, will build capacity for TDN efforts to assess Smith River critical indicator species population status and trends by initiating a pilot study to collect salmonid and pinniped population data in a changing coastal environment. This study will be used to develop methods and protocols for a long term monitoring, and identify baseline conditions on these critical species. Data will ultimately be used to inform a vulnerability assessment to guide TDN ocean and coastal trust resource management strategies in the face of changing climate conditions.

Tribe: Tulalip Tribes of Washington

Amount Funded: \$145,986



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Title: *Phase 2 - Building resiliency through sovereign leadership, training, and partnership.*

Project Description: Tulalip Tribes will continue work made possible by FY19 BIA resiliency funds to investigate the factors affecting marine survival of juvenile salmon throughout the Puget Sound. We will also assess larval crab dynamics, and zooplankton communities that represent the bulk of salmonid prey, and indicate crab population health. We are also training Tulalip staff in advanced laboratory and statistical techniques that will increase regional scientific capacity as well as developing lines of inquiry with pioneering researchers to ensure Tulalip has the autonomy and capability to investigate these questions in house.

Tribal Organization: Bristol Bay Native Association **Amount Funded:** \$149,817

Title: *Bristol Bay Marine Multi-Species Conservation Tribal Planning Research Project*

Project Description: Bristol Bay Native Association's project will expand the tribal marine multi-species conservation project to Aleknagik, Clarks Point, and Dillingham in tribal planning and management in order to protect marine resources which are food sustenance of the Bristol Bay Tribes. The outcome will be tribal marine multi-species conservation plan and regional Bristol Bay Multi-Species Conservation Plan.

Category 5: Travel Support for Ocean and Coastal Management

Designed to support travel for tribal leadership or staff participation in, coordination, or training for interagency ocean and coastal spatial planning, including the Great Lakes. This will provide support for tribal representatives to attend organizational meetings, working sessions, or official meetings of: Regional Ocean Partnerships (ROP), technical workshops or trainings, or targeted pilot studies or projects.

Number of Awards: 11

Amount Funded: \$136,808

Project Description for All Category 5 Awards: These funds will support direct travel costs for tribal leaders or staff participation in, coordination, or training for interagency ocean and coastal management and planning, including meetings of Regional Planning Bodies.

Tribal Organization:	Cher-Ae Heights Indian Community of the Trinidad Rancheria	Amount Funded:	\$14,999
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Tribal Organization:	Hoopa Valley Tribe	Amount Funded:	\$14,845
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Tribal Organization:	Houlton Band of Maliseet Indians	Amount Funded:	\$6,127
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Tribal Organization:	Native Village of Kongiganak	Amount Funded:	\$15,000
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Tribal Organization:	Native Village of Port Lions	Amount Funded:	\$12,357
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Tribal Organization:	Resighini Rancheria	Amount Funded:	\$14,987
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Bureau of Indian Affairs Tribal Resilience Program 2020 Funding Awards Summary

Tribe:	Sitka Tribe of Alaska	Amount Funded:	\$14,890
Tribe:	Sun'aq Tribe of Kodiak	Amount Funded:	\$14,611
Tribe:	Wrangell Cooperative Association	Amount Funded:	\$8,921
Tribal Organization:	Chugach Regional Resources Commission & the Alutiiq Pride Shellfish Hatchery	Amount Funded:	\$14,771
Tribal Organization:	Kodiak Area Native Association	Amount Funded:	\$5,300

Category 6: Capacity Building

To support tribes with limited technical and staffing capacity to carry out risk scoping activities that can lead to more detailed future adaptation planning proposals. The effort highlights risks and options that may support ways to begin to plan and build greater capacity for resilience, particularly by identifying tribal vulnerabilities and adaptation planning needs. Tribes in this category have not previously received larger awards in award years 2014 through 2019.

Number of Awards: 14

Amount Funded: \$864,066

Tribe:	Chickaloon Native Village	Amount Funded:	\$63,493
Tribe:	Crow Tribe of Indians, Montana	Amount Funded:	\$58,277
Tribe:	Iowa Tribe of Kansas and Nebraska	Amount Funded:	\$56,100
Tribe:	Ivanof Bay Tribe	Amount Funded:	\$65,000
Tribe:	Kaw Nation, Oklahoma	Amount Funded:	\$64,422
Tribe:	Koyukuk Native Village	Amount Funded:	\$64,947
Tribe:	Modoc Nation of Oklahoma	Amount Funded:	\$65,000
Tribe:	Native Village of Kongiganak	Amount Funded:	\$62,332
Tribe:	Nulato Village	Amount Funded:	\$54,875



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Tribe: Paiute-Shoshone Tribe of the Fallon Reservation and Colony **Amount Funded:** \$65,000

Tribe: Prairie Band Potawatomi Nation **Amount Funded:** \$65,000

Tribe: Pueblo of Sandia, New Mexico **Amount Funded:** \$65,000

Tribe: Santee Sioux Nation, Nebraska **Amount Funded:** \$55,470

Tribe: Wiyot Tribe, California **Amount Funded:** \$59,150

Category 7: Relocation, Managed Retreat and Protect-in-Place Planning

Support for tribes facing questions and decisions regarding managed retreat, expansion, protect-in-place, and relocation options due to threats from intensifying coastal or riverine erosion, flooding and permafrost degradation impacts, sea level rise, and similar impacts.

Number of Awards: 15

Amount Funded: \$2,203,135

Tribe: Akiak Native Community **Amount Funded:** \$149,815

Title: *Akiak Home Relocation and Managed Retreat Project*

Project Description: Akiak Native Community will plan for a managed retreat from the Kuskokwim River. Specifically, this will support a wildlife assessment associated with the development of a new solid waste as required by the Federal Aviation Administration, and design services for a proposed housing subdivision expansion.

Tribe: Aleut Community of St. Paul Island Tribal Government **Amount Funded:** \$149,970

Title: *Aleut Community of St. Paul Island: Preliminary Engineering Assessment*

Project Description: Aleut Community of St. Paul will hire an engineering consultant to conduct a preliminary community flood and coastal erosion vulnerability assessment and provide recommendations for near and long-term mitigation measures. The engineering consultant will work with our community to create implementation plans for our top three flood mitigation solutions. This will include community meetings, door-to-door interviews with residents, engineering design, environmental and historic reviews, and permitting. The final plan will include Project Workbooks, with all of the components necessary for us to seek funding to implement the solutions. An adaptation plan will be updated incorporating the recommendations and Traditional Ecological Knowledge.

Tribe: Chinik Eskimo Community **Amount Funded:** \$150,000

Title: *Chinik Eskimo Community Data Development for Managed Retreat*

Project Description: The Chinik Eskimo Community will conduct the Data Development for Managed Retreat project. The proposed project will hire an engineering firm to work with our community to collect data and information that are necessary to create informed adaptation strategies to protect our infrastructure. This project directly and immediately benefits all residents of Golovin by building local capacity to reduce clear and imminent threats detrimental to community health and safety.

Tribe: Gwichyaa Zhee Gwich'in Tribal Government **Amount Funded:** \$149,327



Bureau of Indian Affairs Tribal Resilience Program 2020 Funding Awards Summary

Title: *Gwichyaa Zhee Gwich'in Flood Protection Planning*

Project Description: Gwichyaa Zhee Gwich'in Tribal Government will engage an engineering consultant to conduct protection-in-place planning to address the persistent and increasingly severe flood threat to our community.

Tribe: Lower Sioux in the State Minnesota

Amount Funded: \$150,000

Title: *Protecting Lower Sioux's Access to the Minnesota River*

Project Description: Lower Sioux is interested in a comprehensive riverine flooding and erosion assessment to develop a mitigation strategy of the Tribe's land located along the Minnesota River. The project will conduct a hydrological study of the flooding and the resulting erosion that will be used to develop recommendations for the installation of erosion protection. The work will also include a mentor component to provide a STEM opportunity for Lower Sioux community youth to work with the Environmental Department and Tribal Historical Preservation Office project staff on an environmental engineering project.

Tribe: Native Village of Hamilton

Amount Funded: \$131,915

Title: *Native Village of Hamilton Erosion Protection Planning*

Project Description: Native Village of Hamilton will conduct planning activities that will protect our community's infrastructure from riverine erosion. We will contract with an engineering consultant in order to develop a final report that will evaluate options to protect community infrastructure from erosion and complete the 65% engineering design for our community's desired alternative. This project will immediately and directly benefit the health, life and safety of our residents by building our Tribal capacity to address erosion impacts.

Tribe: Native Village of Noatak

Amount Funded: \$149,928

Title: *Native Village of Noatak Erosion Impact Assessment*

Project Description: Native Village of Noatak will complete a comprehensive riverine erosion assessment that will help our community to develop recommendations for near-term actions and inform long-term planning to protect our community.

Tribe: Native Village of Nunapitchuk

Amount Funded: \$137,925

Title: *Nunapitchuk Protect-in-Place Design and Planning*

Project Description: Permafrost degradation, flooding, and erosion combine to threaten the very existence of the Native Village of Nunapitchuk (NVN). Erosion has advanced the river to the doorstep of the public safety building, and the building is in irreparable condition. To address our community's highest priorities related to harmful environmental trends, this project will a) design a replacement public safety building for a safe site; and, b) develop a multi-jurisdictional hazard mitigation plan to increase our capacity to understand risks from flooding and permafrost degradation impacts on community life, health, and safety.

Tribe: Native Village of Shaktoolik

Amount Funded: \$149,701

Title: *Coastal Hazards Planning*

Project Description: The safety of Native Village of Shaktoolik is threatened by storm surge. This project will complete a sea wall cost feasibility study and planning for a new gravel materials source so that we can protect our community.

Tribe: Native Village of Shishmaref

Amount Funded: \$138,060



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Title: *Native Village of Shishmaref Landfill and Sewage Infrastructure Preservation Planning*

Project Description: This project evaluates options for continuing to preserve Native Village of Shishmaref's landfill, honey bucket lagoon, and the access road to these facilities, which are faced with accelerating erosion and flood inundation. This project benefits the health and safety of all community residents and will help to avoid environmental contamination from natural disasters.

Tribe: Nez Perce Tribe

Amount Funded: \$149,396

Title: *Lapwai Valley Flood Resilience Planning*

Project Description: Lapwai Creek is now experiencing chronic flooding that impacts the Nez Perce Tribe's horse program, the community sweat house, Spring Creek, and critical infrastructure in Lapwai Valley. Responses to this issue have thus far been reactive, and inadequate to cope with the problem. We are proposing a proactive planning process that involves the community and stakeholders, uses best available science, and assists in securing funding.

Tribe: Upper Skagit Indian Tribe

Amount Funded: \$150,000

Title: *Water Supply Analysis to protect-in-place tribal infrastructure, human health and safety by mitigating impacts of extreme events.*

Project Description: The Upper Skagit Indian Tribe is submitting an application under the FY20 TRP, Category #7: "Planning for Relocation, Managed Retreat, or Protect-in-Place Activities for Coastal and Riverine Communities." The Tribe operates a Class A public water system, serving its' Helmick Road Reservation and adjacent off-reservation residential properties. The Tribe will carry out planning and preliminary design activities to determine the economic and environmental effectiveness of establishing a water system intertie between the existing Skagit Public Utility District water supply and the Tribal water utility to protect-in-place the Tribe's public water system.

Tribe: Village of Chefornek

Amount Funded: \$147,500

Title: *Village of Chefornek Managed Retreat Subdivision Site Design*

Project Description: Village of Chefornek is actively pursuing an adaptation strategy that ensures life can continue in the community due to such threats. The community has evaluated and chosen a new subdivision site located nearby in a safer area and will relocate threatened infrastructure to the site. This project will develop professional subdivision civil site designs, construction documents, and a design integration report that the tribe will use to prepare the site and eventually implement a managed retreat of infrastructure that protects people and their way of life.

Tribe: Village of Kotlik

Amount Funded: \$149,998

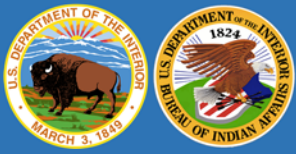
Title: *Village of Kotlik Erosion Protection Design*

Project Description: The Village of Kotlik will contract with an engineering firm to develop erosion protection options and designs for the community's landfill. If we do not take action to protect our landfill, advancing erosion could release waste into our river, causing a cascade of negative public and environmental health outcomes in our community. The purpose of this project is to advance our community's efforts to prevent negative impacts to community health and sustainability.

Tribal Organization: Alaska Native Tribal Health Consortium

Amount Funded: \$149,600

Title: *Planning for High Priority Community-Driven Resilience Solutions*



Bureau of Indian Affairs Tribal Resilience Program 2020 Funding Awards Summary

Project Description: The goal of this project is to increase Tribal capacity to manage impacts from erosion, flooding, and permafrost thaw on Alaska's 73 most threatened communities. We will create Program Manager and Tribal Intern/AmeriCorps positions to provide planning and technical assistance services for protection-in-place, relocation, and managed retreat. Deliverables include developed projects for communities' high priority solutions, an online interactive tool to track data collection and risk assessment needs statewide, engineering services solicitations, monthly partner planning meetings; tabletop planning exercises, and business and financial plans to grow and sustain statewide Tribal capacity.



Bureau of Indian Affairs Tribal Resilience Program 2019 Funding Awards Summary

Total Number of Awards: 119 Total Amount Funded: \$8,731,454

Category 1: Trainings and Workshops

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

Number of Awards: 13 Amount Funded: \$1,803,655

Tribe: Blue Lake Rancheria, California **Amount Funded:** \$148,500

Title: *Climate Adaptation Planning Training Partnership Project*

Project Description: The Blue Lake Rancheria (BLR) will provide climate adaptation training in partnership with Institute for Tribal Environmental Professionals (ITEP), Northern Arizona University and University of Hawaii to other Tribal Nations through the BLR Resiliency Training & Innovation Center (RTIC). The RTIC has partnered with many organizations and agencies to bring training to the geographically isolated region of Northern California. So far, over 850 students have earned certifications through RTIC and the training it offers.

Tribe: Central Council Tlingit and Haida Indian Tribes of Alaska (Tlingit and Haida) **Amount Funded:** \$148,358

Title: *Building Community Resilience in Southeast Alaska*

Project Description: Tlingit & Haida will organize and host, in partnership with the Sustainable Southeast Partnership (SSP), a workshop focused on building community resilience in Southeast Alaska communities. Tlingit & Haida will cover travel costs for 16 Southeast Alaska Tribes. This workshop will be hosted by Tlingit & Haida and Southeast Sustainable Partnership (SSP) Alaska Sea Grant. The focus of the three-day training workshop will be the integration of scientific and Traditional Ecological Knowledge (TEK) into a triple-bottom-line (people, profit, planet) framework for climate adaptation planning for tribes, tribal enterprises, Alaska Native corporations, community development nonprofits, conservation groups, and small business owners.

Tribe: Flandreau Santee Sioux Tribe **Amount Funded:** \$117,453

Title: *Northern Great Plains Tribal Climate Adaptation Workshop*

Project Description: The Flandreau santee Sioux Tribe will organize a series of 5 workshops to provide training and education for the staff and students from the 12 federally recognized Tribes of North Dakota and South Dakota (3 Affiliated Tribes of Fort Berthold, Turtle Mountain Band of Chippewa, Standing Rock Sioux, Spirit Lake, Flandreau Santee, Rosebud, Oglala, Sisseton Wahpeton, Lower Brule, Cheyenne River, Crow Creek, and Yankton Sioux) to address climate and environmental issues in their respective communities.

Tribe: Pala Band of Mission Indians **Amount Funded:** \$149,364

Title: *Tribal Health & Adaptation Cohort to Community Training Project*

Project Description: The Pala Band of Mission Indians (PBMI) Tribal Health & Adaptation Cohort to Community Training Project will provide valuable human health focused adaptation planning training, resources, and other support for all tribes in Southern California and throughout the U.S. This project will build upon PBMI's health adaptation capacity building efforts, expertise, and growing partner network by providing an 8 month, cohort-style remote training series, presentations at three highly attended tribal conferences, and the development of an ongoing community of intertribal trainees that will continue to practice collaborative, peer-to-peer capacity-building.



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Tribe: Pueblo of Santa Clara - Forestry Department **Amount Funded:** \$105,917
Title: *Santa Clara Pueblo Burned Area Restoration Treatment Capacity Building Workshop*

Project Description: Santa Clara Pueblo seeks to create and expansive partner network to pilot wildland fire burned area restoration training, utilizing green infrastructure and bioengineering principles. The desire is to build internal and external capacity by increasing the trained labor force through collaborative partnerships, expanding burned area restoration and treatment throughout New Mexico. Trainings will provide tribal, federal, state, non-profit, non-governmental, county and municipal organization to join together in order to learn and plan for burned area restoration and flood mitigation design. The culmination will develop a Burned Area Restoration Team, available to respond to restoration emergencies.

Tribe: Qawalangin Tribe of Unalaska **Amount Funded:** \$149,825
Title: *Community Adaptation Summit for Tribes in the Aleutian and Bering Sea Islands, hosted by Qawalangin Tribe of Unalaska*

Project Description: Qawalangin Tribe and their partners will host a community adaptation summit to bring together leaders from island and coastal tribes in the Aleutian and Bering Sea region, together with agencies and other service providers, to focus on adaptation planning to address shared vulnerability to extreme events and harmful environmental trends. Through sharing common experiences of climate trends such as changing weather and ocean conditions, the partners will work together to develop knowledge, skills, and partnerships to help build on Adaptation Plans and develop plans of work to accomplish shared goals.

Tribe: Wampanoag Tribe of Gay Head (Aquinnah) **Amount Funded:** \$ 99,605
Title: *Wampanoag Tribe of Gay Head (Aquinnah)'s Tribal Resiliency Workshop Series*

Project Description: The Wampanoag Tribe of Gay Head (Aquinnah) will host a workshop/training series entitled Tribal Resiliency Workshop Series. The Tribe will host and co-host workshops throughout the FY20/21 seasons. The series includes co-hosting the following events: (1) Living Local Harvest Festival along with the Martha's Vineyard Agricultural Society and (2) Martha's Vineyard/Nantucket Coastal Conference along with WHOI Sea Grant and Massachusetts Coastal Zone Management (CZM). These workshops focus on areas of concern for the Tribal community, including sustainable food initiatives, climate adaptation planning, habitat restoration, and infrastructure redevelopment.

Tribal Organization: Affiliated Tribes of Northwest Indians **Amount Funded:** \$145,907
Title: *ATNI National Tribal Climate Summit*

Project Description: ATNI will provide climate change training and travel support to elected Tribal leaders, tribal management, climate change coordinators, planners and technical staff of the 57 Tribes of ATNI. The unique component of this work is the collaborative efforts of the nation's premier Inter-Tribal consortia- ATNI and it's 57 Tribal members. In addition, ATNI, in collaboration with the Northwest Regional Office BIA, and the Department of the Interior's NW Climate Adaptation Science Center (jointly represented through its host University of Washington), and the Pacific NW Tribal Climate Change Project (University of Oregon) will jointly design and host the 4th Annual Northwest Tribal Climate Camp.



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Tribal Organization: CMN Sustainable Development Institute **Amount Funded:** \$145,512

Title: *College of Menominee Nation Sustainable Development Institute 3rd Shifting Seasons Summit: Sharing Adaptation and Resilience Knowledge across Northeastern Indigenous Communities.*

Project Description: The College of Menominee Nation (CMN), through the Sustainable Development Institute (SDI) and on behalf of College of Menominee Nation, will coordinate, plan, and convene a 3rd event in the Shifting Seasons Summit series, which has provided opportunities for tribes within the Great lakes, the Eastern region, and nationally. In prior years, Shifting Seasons has focused on the development of a climate change research agenda through the Great Lakes Tribal Climate Change Summit (2011) and Building Capacity for Tribal Climate Adaptation in the Northeast region (2014). Based on these prior two events CMN SDI has continued to develop and provide opportunities.

Tribal Organization: Inter-Tribal Council of Arizona, Inc. **Amount Funded:** \$150,000

Title: *ITCA Adaptation Planning Workshops and Training for Resiliency*

Project Description: ITCA will plan, implement, and evaluate five in-person workshops to all interested tribes in Arizona addressing extreme events and harmful environmental trends in areas of: Drought, Water Availability, Food Scarcity, Outbreaks of Pests, Air Quality/Respiratory Illness and Wildfires. Secondly, ITCA will hold a two-day Tribal Nations Resilience in Arizona Conference 2020 that will bring together Tribal leaders, Tribal environmental and health departmental staff, scientists, and students to share, develop skills, and build resilience for Adaptation Planning.

Tribal Organization: National Indian Justice Center (NIJC) **Amount Funded:** \$150,000

Title: *Assessing Climate Change Induced Vulnerabilities in Tribal Transportation Systems in California*

Project Description: NIJC will develop a training curriculum on the topic of assessing climate change related vulnerabilities in California tribal transportation systems. The organization will deliver the curriculum to 80 or more tribal leaders and personnel in 3 regional workshops and by using an on-demand, online course based on the curriculum.

Tribal Organization: Navajo Technical University **Amount Funded:** \$148,771

Title: *Navajo Technical University and Affiliated Tribes of Northwest Indians Climate Camp Collaborative Project*

Project Description: The work of Navajo Technical University and partners will make available climate change training and travel support to elected Tribal leaders, tribal management and technical staff of the 157 Tribes of California, Nevada, Utah, and Arizona that are within the region of the Southwest Climate Adaptation Science Center as well as all other interested Tribes. The unique component of this work is the partnership that includes one of the nation's premier Inter-Tribal consotiums- Affiliated Tribes of Northwest Indians (ATNI), the Southwest Climate Adaptation Science Center (SW CASC) and the Navajo Nation's first University: Navajo Technical University. NTU and ATNI will design the plan and conduct the Southwest Tribal Climate Change Camp with support from the American Indian Higher Education Consortium (AIHEC).

Tribal Organization: United South and Eastern Tribes, Inc. (USET) **Amount Funded:** \$144,443

Title: *Tribal Resilience Camp*

Project Description: USET will host a Tribal Resilience Camp. The Camp will support teams of Tribal leaders,



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professional and technical staff, and youth/early career professionals (the "next generation") to build skills, gather information, and develop Tribal policy needed to build resilience to Extreme Events and Harmful Environmental Trends impacting Tribal Nations. The Camp will provide examples of applied traditional knowledge, case studies of Tribal resilience and access to environmental data, tools, and resources for Tribal teams participating in the Camp.

Category 2: Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, Data, and Data Analysis

Number of Awards: 32

Amount Funded: \$3,884,907

Tribe: Aleut Community of St. Paul Probilof Islands **Amount Funded:** \$150,000

Title: *Adaptation Plan Development of the Aluet Community of St. Paul Island*

Project Description: The project addresses the need for Alaska Native Tribes and rural communities to properly assess and measure the impact of environmental changes on their communities. The goal of the project is to develop an adaptation plan for St. Paul Island, including vulnerability assessments where needed and data analysis of existing data to address extreme events and harmful environmental trends impacting our resources, economies, infrastructure, human health and welfare. Additionally, deliverables will be shared broadly with other Alaskan Tribes.

Tribe: Allakaket Village **Amount Funded:** \$ 85,602

Title: *Allakaket Village Adaptation Planning & Capacity Building Project*

Project Description: Allakaket Village will complete an Adaptation Assessment and build tribal capacity to prevent, mitigate, and recover from events. Half of the community of Allakaket is located in a floodplain and storms are increasing in severity and occurrence; the Tribe will plan for the future and to increase the capacity to implement the plan.

Tribe: Burns Paiute Tribe **Amount Funded:** \$ 73,875

Title: *Burns Paiute Tribe's Adaptation Planning for Habitat Connectivity*

Project Description: Harmful environmental trends are impacting the Burns Paiute's aboriginal homelands. These changes negatively affect plant and animal species that are important traditional food resources for the Tribe. Wildlife populations are under increasing pressure from these landscape-scale impacts, which are magnified by other anthropogenic impacts. To combat these impacts, the Burns Paiute Tribe seeks to develop an adaptation plan focused on improving habitat connectivity for culturally important wildlife species. This will be accomplished through a multi-species connectivity assessment and identification of remediation measures to develop functional solutions to improve wildlife habitat connectivity.

Tribe: Chilkat Indian Village **Amount Funded:** \$149,350

Title: *Chilkat Indian Village*

Project Description: Chilkat Indian Village signed a resolution recognizing the need to better understand harmful environmental trends in order to mitigate current and future threats and ultimately protect the long-term vitality of the Village of Klukwan.

Tribe: Manzanita Band of Diegueno Mission Indians **Amount Funded:** \$113,040



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Title: *Manzanita 2019 Tribal Resilience Project*

Project Description: The Manzanita 2019 Tribal Resilience Project will (1) identify and summarize climate risks to the Manzanita Tribal Community based on Traditional Knowledge and western scientific literature for the region; (2) Review available information, documents, and resources that can provide recommendations for integrating climate considerations to reduce short- and long-term risks to culturally-significant plant and animals; (3) Integrate climate change adaptation strategies that reflect cultural heritage priorities and concerns from the Manzanita Community with strategies for improving resilience and reducing risks and vulnerabilities. These strategies will build off and inform other Tribal climate-planning efforts and projects in the region.

Tribes: Native Village of Aniak **Amount Funded:** \$ 98,362

Title: *Native Village of Aniak Adaptation Plan*

Project Description: Native Village of Aniak's project will develop an Adaptation Plan as the first step in the prevention and mitigation of climate-related events.

Tribes: Native Village of Buckland **Amount Funded:** \$ 99,303

Title: *Native Village of Buckland Adaptation Planning Project*

Project Description: Buckland is experiencing community-wide issues related to climate change. The project is the development of an Adaptation Plan that meets the unique needs of Buckland, includes traditional knowledge and prepares the community to prevent, mitigate and recover from events.

Tribes: Native Village of Chuathbaluk **Amount Funded:** \$ 63,978

Title: *Native Village of Chuathbaluk Adaptation Plan*

Project Description: Native Village of Chuathbaluk wishes to develop an Adaptation Plan using the steps outlined in U.S. Climate Resilience Toolkit. The Plan will identify important components of the community and determine the risk of harm. The project will help Chuathbaluk address extreme events and harmful environmental trends that impact resources, economy, infrastructure, health and welfare.

Tribes: Native Village of Napakiak **Amount Funded:** \$147,811

Title: *Native Village of Napakiak Managed Retreat Planning*

Project Description: Native Village of Napakiak is on an island and due to the severity of environmental threats, the community is forced to retreat to another location. The goal of the project is to ensure essential science for planning efforts and increase the Tribe's capacity to manage the retreat to a new site.

Tribes: Native Village of Nunapitchuk **Amount Funded:** \$148,275

Title: *Native Village of Nunapitchuk Permafrost Vulnerability Assessment*

Project Description: Native Village of Nunapitchuk is relocating to another site due to erosion, permafrost degradation, and flooding. The Tribe plans to produce a vulnerability assessment to predict and address the expected severe impacts in their coastal community.

Tribes: Native Village of Savoonga **Amount Funded:** \$149,943

Title: *Adaptation Planning for Native Village of Savoonga: Permafrost Vulnerability*



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Project Description: Native Village of Savoonga will conduct a Permafrost Vulnerability Assessment to provide the community with sufficient data to inform critical decisions on long-term efforts regarding mitigation, managed retreat, and/or relocation, and support the community in better understanding immediate vulnerabilities of community-wide infrastructure to permafrost degradation.

Tribe: Native Village of Tuntutuliak **Amount Funded:** \$148,275

Title: *Native Village of Tuntutuliak Permafrost Degradation Vulnerability Assessment*

Project Description: Tuntutuliak will hire an Engineering Contractor to develop a permafrost vulnerability assessment to predict future impacts in our community and recommend solutions. This project will involve a desktop study geological and geotechnical information, Elder Interviews, Community meetings, a site visit by the engineering contractor, a structural engineering assessment of threatened infrastructure, field investigation into subsurface conditions and the creation of a permafrost vulnerability assessment report complete with "fundable projects" for the Tribe's chosen top three solutions.

Tribe: New Stuyahok Village **Amount Funded:** \$ 76,111

Title: *New Stuyahok Village Adaptation Planning Project*

Project Description: New Stuyahok Village will develop an Adaptation Planning Assessment that will identify important components of the community and determine risk of harm. The Adaptation Planning Assessment will address Alaska's increasingly frequent and increasingly severe storms and climate-related adverse events including melting permafrost, open water and wildfire. These extreme events increasingly have the potential to impact the resources, economy, infrastructure, health and welfare of the Tribe.

Tribe: Newhalen Village **Amount Funded:** \$ 82,038

Title: *Newhalen Village Adaptation Assessment*

Project Description: Newhalen Village will complete an Adaptation Plan working with Village of Iliamna on shared infrastructure when necessary. The Plan will include a Vulnerability Assessment and development of data analysis efforts to build tribal capacity to mitigate impacts caused by extreme events and harmful environmental trends.

Tribe: Nez Perce Tribe **Amount Funded:** \$149,958

Title: *Camas to Coho to Condors: Blues to Bitterroots Resilience Coalition Project*

Project Description: The Nez Perce Tribe will build on the Tribe's resilience planning efforts and is designed to bring regional partners to the table to increase the capacity of the Tribe to preserve culturally significant species and resources on the landscape. The planning process includes mitigation, adaptation, and resilience, and this is the component that focuses on women's food's and wildlife conservation because this is the area with the greatest need for capacity building.

Tribe: Nooksack Indian Tribe **Amount Funded:** \$149,999

Title: *Forecasting Peak Streamflows for Extreme Weather Event Scenarios to Assess Safety Risk, Floodplain Function, and Habitat Restoration in the Nooksack River System as well as an Update of the Nooksack Indian Tribe's SFNR Watershed Conservation Plan and Adaptation Plan*

Project Description: Extreme weather events have already impacted the Nooksack River watershed, which in turn has impacted the Tribe's ability to harvest sustainable natural resources for subsistence, cultural, ceremonial, and



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commercial uses. The Tribe initiated a comprehensive vulnerability assessment and adaptation/resilience planning project in 2012. This project builds upon and acts on recommendations identified through that work. The Tribe will undertake the following activities under this award: peak streamflow computer simulations using DHSVM, update the Tribe's watershed conservation plan, develop the framework for a watershed services exchange program, update the Tribe's adaptation/resilience plan, and continued environmental monitoring for model verification.

Tribe: Pala Band of Mission Indians **Amount Funded:** \$140,911

Title: *Scalable San Diego Intertribal Resilience Data Development Project*

Project Description: The Pala Band of Mission Indians' Scalable San Diego Intertribal Resilience Data Development Project will support tribes locally, state-wide, and nationally in the development, analysis, and supplementary/ongoing monitoring of epidemiological and other datasets for Adaptation Planning and resilient decision-making, increasing the capacity of tribes to prepare for and address health and other impacts of extreme events and harmful environmental trends within their communities. This project will work collaboratively with six Tribes in San Diego County to compile available tribal resilience data; identify and prioritize key data gaps and needs; and develop and analyze a new, replicable epidemiological dataset.

Tribe: Pueblo de San Ildefonso Department of Environmental and Cultural Preservation **Amount Funded:** \$115,868

Title: *Health Impact Assessment for Evaluating the Vulnerability of the Pueblo de San Ildefonso to the Combined Effects of Extreme Events and Contaminant Exposure*

Project Description: The Pueblo de San Ildefonso faces unique challenges due to its proximity to the Los Alamos National Lab. Extreme events may exacerbate contaminant transport, human exposure to contaminants, and associated health risks. These extreme events themselves also pose human health risks. The Tribe will conduct a Health Impact Assessment for evaluating the vulnerability of the Pueblo to extreme events. The Assessment will consider how contaminant exposure and extreme event stressors may, in combination, impact the health of the members of the Pueblo. The Tribe will integrate results into a series of resiliency workshops that are currently underway with the Pueblo community.

Tribe: Round Valley Indian Tribes **Amount Funded:** \$ 57,387

Title: *Round Valley Indian Tribes Adaptation Plan*

Project Description: The Round Valley Indian Tribes will assess the condition of Woodlands on the reservation, predict future trends and develop prescriptions to mitigate potential impacts to Woodlands. The Tribe will communicate results to Tribal members.

Tribe: Sauk-Suiattle Indian Tribe **Amount Funded:** \$105,703

Title: *Developing a Vulnerability Assessment for the Sauk-Suiattle Indian Tribe to implement Tribal Resilience*

Project Description: The Sauk-Suiattle Indian Tribe (SSIT) Natural Resources Department (NRD) will partner with Southern Oregon University (SOU) in using NatureServe's Climate Change Vulnerability Index to assess an identified array of flora and fauna species, as well as habitat types that are culturally and ecologically significant to the SSIT. This will build on the BIA TRP FY2015 grant that assessed the hydrology, stream temperature, and sediment impacts of climate change in the Sauk River Basin. Through this project, the SSIT will produce a vulnerability assessment that will develop the framework for an adaptation plan.



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Tribe: Seminole Tribe of Florida **Amount Funded:** \$144,000
Title: *Seminole Tribe of Florida Adaptation Planning - Phase II*

Project Description: The Seminole Tribe of Florida will perform a Phase II Adaptation Planning effort utilizing data generated from the previously funded Phase I Vulnerability Assessment to protect its cultural and historic assets on multiple Reservations in the event of adverse climate change.

Tribe: Sitka Tribe of Alaska **Amount Funded:** \$141,067
Title: *Development of a Climate Adaptation Plan Utilizing Environmental Data Collected by the Southeast Alaska Tribal Ocean Research Partnership*

Project Description: The Sitka Tribe of Alaska will develop a vulnerability matrix to determine adaptive capacity of areas of concern leading to a climate Adaptation Plan for the traditional territory of the Sitka Tribe of Alaska.

Tribe: Stillaguamish Tribe of Indians **Amount Funded:** \$149,160
Title: *Stillaguamish Tribal Resilience Planning for Future Generations—Continuing the Work-Part 2*

Project Description: The Stillaguamish Tribe of Indians will extend stream temperature and flow modeling to the main stem Stillaguamish and its tributaries to the mouth of the river. This work will include the installation of additional air and water temperature sensors and integrating newer updated meteorological data in the model. Funds in this grant will also allow Stillaguamish staff to attain professional training on how to monitor and salvage freshwater mussel populations. This modeling and training will provide the Tribe with a strategy, priorities and the capacity for action to adapt to changing environmental conditions in the future.

Tribe: Tulalip Tribes of Washington **Amount Funded:** \$129,149
Title: *Tulalip Tribes Treaty Reserved Resource Management Capacity Planning in Light of Extreme Events and Harmful Environmental Trends*

Project Description: This project provides data and tools to build on previous efforts by the Tulalip Tribes to further develop the Tulalip Tribes' Adaptation Plan. More specifically it refines a tool (EMDS) for analysis of treaty natural resource data to make better decisions in the management of treaty rights resources in light of observed adverse environmental trends. The Adaptation Plan is founded in tribal values and culture. The Tribes will continue to engage Tulalip Knowledge Keepers and scientific staff to ensure that adaptation to extreme events and environmental trends is based on information, and results in implementation, that is meaningful to tribal members.

Tribe: Village of Alakanuk **Amount Funded:** \$149,471
Title: *Village of Alakanuk Erosion Impact Assessment*

Project Description: Village of Alakanuk will contract with an engineering firm to complete a comprehensive riverine erosion assessment that will help the community develop recommendations for near-term actions (e.g. move six homes to a new site) and inform long-term planning to protect the community (e.g. can they protect-in-place or is relocation necessary?). The assessment will involve a desktop assessment, field investigation, hydrologic and hydraulic modeling and analysis, a report that documents the entire evaluation, and update the Statewide Threat Assessment geodatabase with project results. The project will immediately increase the Tribe's capacity to mitigate the erosion threat by informing the near and long-term strategic planning, by helping to secure funding to implement solutions (e.g. move buildings), and by arming the community with a credible assessment that can be taken to agency decision-



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makers and public policymakers to demonstrate the severity of the erosion threat and the benefits of taking proactive actions to avoid a disaster.

Tribes: Village of Bill Moore's Slough **Amount Funded:** \$149,840

Title: *Village of Bill Moore's Slough Relocation Site Suitability Assessment*

Project Description: The three federally recognized Tribes in the community have selected two sites to evaluate for potential relocation, which they believe will be the only viable long-term adaptation strategy to harmful environmental trends and extreme events. This project was designed in partnership with Alaska Native Tribal Health Consortium (ANTHC) to provide the best available science regarding the suitability of those two sites. The Assessment will engage geotechnical, civil, and hydrogeological engineering experts in: a kick-off meeting, house to house survey to gather local knowledge of the pros and cons of the two sites, a desktop study to compile and analyze existing data, field visits to the sites, and aerial field data collection via a drone. All future strategic relocation planning will be based on the results of this project.

Tribes: Village of Iliamna **Amount Funded:** \$ 82,038

Title: *Village of Iliamna Adaptation Assessment*

Project Description: Village of Iliamna will complete an Adaptation Plan working with Newhalen Village on shared infrastructure when necessary. The Plan will include a Vulnerability Assessment and develop of data analysis efforts to build tribal capacity to mitigate extreme events and harmful environmental trends.

Tribal Organization: Affiliated Tribes of Northwest Indians **Amount Funded:** \$145,907

Title: *Affiliated Tribes of Northwest Indians*

Project Description: Tribal Climate Change workshops as well as a week long Youth Tribal Camp to provide climate change training and travel support to elected Tribal leaders, Tribal management, climate change coordinators, planners and technical staff of the 57 Tribes of ATNI.

Tribal Organization: Alaska Native Tribal Health Consortium (ANTHC) **Amount Funded:** \$146,522

Title: *Regional Tribal Adaptation Planning in the Yukon-Koyukuk Region of Alaska*

Project Description: The Alaska Native Tribal Health Consortium will work with tribes in the Yukon Koyukuk region of Alaska to develop a regional Adaptation Plan. Project staff will bring communities and partners together to identify local vulnerabilities and priorities, collect traditional and scientific data, and identify culturally appropriate adaptation strategies for the region. A regional adaptation plan will result. A community page for each participating tribe will be developed in ANTHC's Alaska Healthy Community web platform, which is an online tool that allows communities to outline local priorities, manage projects, directly access community data and work products, and collaborate with partners.

Tribal Organization: Columbia River Inter-Tribal Fish Commission (CRITFC) **Amount Funded:** \$148,709

Title: *Development of Climate Adaptation Planning Decision Support Tools for the Mainstem Columbia River to Benefit the Tribal First Foods*



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Project Description: The project will support the development of a suite of regional planning tools for CRITFC Tribes to prepare for climate change impacts to the mainstem of the Columbia River. The decision support tools will increase tribal technical capacity to evaluate changes to the mainstem and support policy and actions that mitigate climate change impacts to their First Foods. Adaptation strategies that could be evaluated with this approach include protection and enhancement of cold-water refuge areas, flood plain reconnection, engineered recharge, altering dam operations, and targeted upstream restoration.

Tribal Organization	Northwest Indian Fisheries Commission	Amount Funded: \$44,000
Title:	<i>Coastal Flood Adaptation Planning and Prioritization Framework for Treaty Rights and Resource Protection</i>	

Project Description: This project will support the twenty treaty Tribes in western Washington in prioritizing adaptation strategies for treaty-protected natural resources and tribal communities facing coastal floods, extreme storms, and sea level rise. It will also enhance the capacity and productivity of intertribal collaboration for regional planning. It integrates an advanced model of changing coastal conditions with tribal priorities to advance innovative tribal solutions for harmful environmental trends. The results will form a framework for tribal leaders and program managers to make informed decisions that maintain treaty-protected species, such as salmon, shellfish, and forage fish, and community resilience into the future.

Tribal Organization:	Yukon River Inter-Tribal Watershed Council	Amount Funded: \$149,255
Title:	<i>Yukon River Inter-Tribal Watershed Council Tribal Capacity Building Project: Vulnerability Assessments for Changing Hydrology in Interior Yukon River Basin Communities</i>	

Project Description: This project will empower four Interior Yukon River Alaska Native communities with the knowledge, technology and tools to monitor these changes and draft a Vulnerability Assessment based on original data collection. Tribes will build capacity in both simple (stakes and pictures) and state-of-the art (GIS mapping, drones and sensors) monitoring tools. Documentation of Traditional Knowledge early in the project will focus monitoring efforts on areas and threats of significance to traditional ways of life. Through trainings and site visits each Tribe will initiate a monitoring program for sewage lagoons, landfills and/or erosion based on community resources and priorities.

Category 3: Travel Support for Adaptation Planning

Travel Support for Climate Adaptation Planning, Vulnerability Assessments, Data Development and Analysis

Number of Awards: 37 **Amount Funded:** \$442,827

Project Description for All Category 3 Awards: Funding will provide travel support and access for tribal leaders, tribal members, and tribal staff to attend workshops, trainings, or meetings associated with building adaptation knowledge and skills for resilience against the impacts of extreme events and harmful environmental trends that impact treaty and trust resources, economies, infrastructure, human health and tribal welfare. This may include training and technical



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workshops to ensure tribal voices are included and other practitioners benefit from tribal participation in training, research, and cooperative implementation. This does not include salary costs or international travel.

Tribes:	Aroostook Band of Micmacs	Amount Funded:	\$ 13,780
Title:	<i>Aroostook Band of Micmacs Travel for A Climate Vulnerability Assessment and Management Plan</i>		
Tribes:	Cahto Tribe of the Laytonville Rancheria	Amount Funded:	\$ 11,033
Title:	<i>Cahto Tribe Travel for Climate Resiliency and Adaptation Planning</i>		
Tribes:	Chinik Eskimo Community	Amount Funded:	\$ 12,861
Title:	<i>Chinik Eskimo Community Travel for Migration Master Plan</i>		
Tribes:	Confederated Tribes of the Umatilla Indian Reservation (CTUIR)	Amount Funded:	\$ 13,000
Title:	<i>CTUIR Travel for LiDAR Aerial Imaging and Hydrologic Report</i>		
Tribes:	Flandreau Santee Sioux Tribe	Amount Funded:	\$ 14,982
Title:	<i>Flandreau Santee Sioux Tribe Travel for Developing Climate Adaptation Plans for Extreme Events that Effect Tribal Lands</i>		
Tribes:	Igiugig Village Council	Amount Funded:	\$ 12,074
Title:	<i>Igiugig Village Council Travel for Data Development</i>		
Tribes:	Ketchikan Indian Community	Amount Funded:	\$ 10,743
Title:	<i>Ketchikan Indian Community Travel for Adaptation Planning</i>		
Tribes:	Keweenaw Bay Indian Community	Amount Funded:	\$ 6,140
Title:	<i>Keweenaw Bay Indian Community Travel for Climate Resiliency Planning</i>		
Tribes:	Native Village of Hamilton	Amount Funded:	\$ 14,719
Title:	<i>Native Village of Hamilton Travel for Environmental Risk Assessment Adaptation Efforts</i>		
Tribes:	Native Village of Kivalina	Amount Funded:	\$ 13,250
Title:	<i>Native Village of Kivalina Travel for Local Arctic Adaptation Relocation Planning</i>		
Tribes:	Native Village of Kongiganak, dba Kongiganak Traditional Council	Amount Funded:	\$ 15,000
Title:	<i>Native Village of Kongiganak Travel for Adaptation Planning</i>		
Tribes:	Native Village of Nunapitchuk	Amount Funded:	\$ 13,845
Title:	<i>Native Village of Nunapitchuk Travel for a Permafrost Vulnerability Assessment</i>		
Tribes:	Native Village of Savoonga	Amount Funded:	\$ 14,758
Title:	<i>Native Village of Savoonga Travel for Adaptation Planning: Permafrost Vulnerability</i>		
Tribes:	Native Village of Shaktoolik	Amount Funded:	\$ 14,202



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Title: *Native Village of Shaktoolik Travel for Environmental Risk Assessment and Planning*

Tribe: Native Village of Shishmaref **Amount Funded:** \$ 12,668

Title: *Native Village of Shishmaref Travel for Adaptation Planning*

Tribe: Native Village of Tuntutuliak **Amount Funded:** \$ 13,845

Title: *Native Village of Tuntutuliak Travel for Permafrost Degradation Vulnerability Assessment*

Tribe: Native Village of Wales **Amount Funded:** \$ 14,789

Title: *Native Village of Wales Travel for Adaptation Planning*

Tribe: Newtok Village Council **Amount Funded:** \$ 13,901

Title: *Newtok Village Council Travel for Adaptation Planning for Health in Mertarvik*

Tribe: Pilot Point Tribal Council **Amount Funded:** \$ 14,198

Title: *Pilot Point Tribal Council Travel for Community Science Training in Wild Berry Survey, Arctic and Earth SIGNS, NASA Globe Program, and Coastal Erosion Monitoring*

Tribe: Pueblo de San Ildefonso **Amount Funded:** \$ 2,313

Title: *Pueblo de San Ildefonso Travel for a Health Impact Assessment for Evaluating the Vulnerability of the Combined Effects of Extreme Events and Contaminant Exposure*

Tribe: Qawalangin Tribe of Unalaska **Amount Funded:** \$ 13,774

Title: *Qawalangin Tribe of Unalaska Travel for Adaptation Planning*

Tribe: Quapaw Tribe of Oklahoma **Amount Funded:** \$ 14,298

Title: *Quapaw Tribe of Oklahoma Travel for a Tribe Flood Hazard Adaptation Planning Project*

Tribe: Santa Ynez Band of Chumash Indians **Amount Funded:** \$ 10,328

Title: *Santa Ynez Band of Chumash Indians Travel for an Environmental Office Climate Change Adaptation Plan*

Tribe: Sauk-Suiattle Indian Tribe **Amount Funded:** \$ 4,200

Title: *Sauk-Suiattle Indian Tribe Travel for Developing a Vulnerability Assessment to Implement Tribal Resilience*

Tribe: Seminole Tribe of Florida **Amount Funded:** \$ 6,895

Title: *Seminole Tribe of Florida Travel for Adaptation Planning – Phase II*

Tribe: Skokomish Indian Tribe **Amount Funded:** \$ 15,000

Title: *Skokomish Indian Tribe Travel for Marine Algal Toxins and Environmental Data Development in Hood Canal, Washington*



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Tribe:	Tulalip Tribes of Washington	Amount Funded:	\$ 13,855
Title:	<i>Tulalip Tribes of Washington Travel for Treaty Reserved Resource Management Capacity Planning in Light of Extreme Events and Harmful Environmental Trends</i>		
Tribe:	Tule River Tribe of California	Amount Funded:	\$ 10,065
Title:	<i>Tule River Tribe of California Travel for Adaptation Planning</i>		
Tribe:	Village of Alakanuk	Amount Funded:	\$ 12,683
Title:	<i>Village of Alakanuk Travel for an Erosion Impact Assessment</i>		
Tribe:	Village of Cheforak	Amount Funded:	\$ 14,560
Title:	<i>Village of Cheforak Travel for Adapting to the Changing Landscape: Migration</i>		
Tribe:	Yurok Tribe	Amount Funded:	\$ 14,033
Title:	<i>Yurok Tribe Travel for Water Resource Adaptation Planning</i>		
Tribe:	Zia Pueblo	Amount Funded:	\$ 7,036
Title:	<i>Zia Pueblo Travel for the Department of Environmental Resources and Public Works Tribal Resiliency</i>		
Tribal Organization:	Affiliated Tribes of Northwest Indians (ATNI)	Amount Funded:	\$ 14,891
Title:	<i>ATNI Travel for Northwest Tribal Climate Adaptation Planning Camp</i>		
Tribal Organization:	Alaska Native Tribal Health Consortium (ANTHC)	Amount Funded:	\$ 8,773
Title:	<i>ANTHC Travel for Regional Tribal Adaptation Planning in the Yukon-Koyukuk Region of Alaska</i>		
Tribal Organization:	Chugach Regional Resources Commission (CRRC)	Amount Funded:	\$ 15,000
Title:	<i>CRRC Travel for Adaptation Planning</i>		
Tribal Organization:	United South and Eastern Tribes, Inc.	Amount Funded:	\$ 11,103
Title:	<i>USET Travel for Adaptation Planning</i>		
Tribal Organization:	Upper Snake River Tribes Foundation, Inc. (USRTF)	Amount Funded:	\$ 4,232
	<i>USRTF Travel for Adaptation Conferences and Workshops</i>		



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Category 4: Ocean and Coastal Management

To Develop Ocean and Coastal Management Plans for Marine and Coastal Resources

Number of Awards: 16

Amount Funded: \$2,172,679

Tribe: Jamestown S'Klallam Tribe **Amount Funded:** \$ 68,641

Title: *Jamestown S'Klallam Tribe contributes to building a more resilient Dungeness crab fishery through collaborative science*

Project Description: The Jamestown S'Klallam Tribe (JST) will generate data and information on the early life stages of Dungeness crab (*Metacancerus magister*) to achieve a more sustainable and resilient fishery. This will be done by monitoring for crab larvae at two locations and co-mentoring, along with the Swinomish Indian Tribal Community (SITC), a Washington Sea Grant Fellow who will serve as a project coordinator for the newly formed Pacific Northwest Crab Research Group (PNWCRG).

Tribe: Knik Tribe **Amount Funded:** \$106,604

Title: *Vulnerability Assessment: Prevalence of Paralytic Shellfish Toxins in the Marine Food Webs of the Bering, Chukchi and Beaufort Seas of Western and Northwestern Alaska*

Project Description: The study will better define the extent to which PSTs vector through the food web. By leveraging ongoing work by the principle investigator, the Tribe will provide the first Risk Assessment data about STXs in the Bering Sea, Chukchi Sea and Beaufort Sea food webs and will expand on previous bloom/toxicity data.

Tribe: Native Village of Napakiak **Amount Funded:** \$149,996

Title: *Native Village of Napakiak River Morphology Study & Managed Retreat Work Plan*

Project Description: The goal of this project is to access critical science and engineering technical assistance to inform community planning. The request is for two key activities: (1) a riverine morphology study to predict the future rate and extent of erosion on the Kuskokwim River; and (2) engage the Tribe's engineering services consultant to develop a Managed Retreat Work Plan to guide the overall retreat strategy for the next two years. The river study will immediately inform the scale and timing of the retreat (e.g. partial or entire relocation). The Work Plan will guide the Tribe's strategy (e.g. major activities, necessary partners/data/planning, funding needs, and timeline). The two components of this project are critical parts of the response to being physically displaced by harmful environmental trends. All community residents and organizations, including all Tribal programs, benefit from this project. Further, by preventing a disaster from occurring, the project is estimated to have at least a 6:1 return on investment for US taxpayers.

Tribe: Native Village of Shishmaref **Amount Funded:** \$143,195

Title: *Native Village of Shishmaref Home Relocation Planning*

Project Description: The project will support relocation to a new site as a result of increasingly severe coastal erosion and flooding through hiring of an engineering consultant and a local Housing Survey Manager to support the community in developing a home relocation plan. The planning effort will interview all homeowners about housing needs, assess the structural condition of each home to determine the feasibility of and methodology for relocation to the new site, and assess the potential for multi-family housing options at the new site. Thus, the planning effort will guide the community's development of a new site.



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Tribe: Native Village of Tuntutuliak **Amount Funded:** \$149,471

Title: *Native Village of Tuntutuliak Erosion Impact Assessment*

Project Description: Native Village of Tuntutuliak will contract with an engineering firm to complete a comprehensive riverine Erosion Assessment that will help the community to develop recommendations for near-term actions (install erosion protection) and inform long-term planning to protect the community (e.g. can they protect-in-place or is relocation necessary?). The Assessment will involve a desktop assessment, field investigation, hydrologic and hydraulic modeling and analysis, a report that documents the entire evaluation, and update the Statewide Threat Assessment geodatabase with project results. This project will immediately increase capacity to mitigate to the erosion threat by informing near and long-term strategic planning, by helping to secure funding to implement solutions (e.g. move buildings), and by arming the community with a credible Assessment that can be taken to agency decision-makers and public policymakers. This will demonstrate the severity of the erosion threat and the benefits of taking proactive actions to avoid a disaster. All of the community residents, all community organizations, and all Tribal programs will benefit from this project. Further, by increasing the understanding of the magnitude of the erosion threat in the community, this project will benefit the region's 58 Alaska Native communities that are currently experiencing significant impacts associated with harmful environmental trends.

Tribe: POINT NO POINT TREATY COUNCIL (Port Gamble S'Klallam & Jamestown S'Klallam) **Amount Funded:** \$149,303

Title: *Point No Point Treaty Council's (PNPTC) Vulnerability Assessments on Sediment Movement and Estuarine Fish Habitat for Adaptation Planning*

Project Description: The Jamestown S'Klallam and Port Gamble S'Klallam Tribes rely on healthy streams and estuaries to provide habitat for fish (ESA listed) and shellfish, which are used as cultural, subsistence, and economic resources to maintain their traditional ways of life. There exist large data gaps in nearshore data for sediment movement, fish/shellfish impacts, and their direct impacts to tribes. The Point No Point Treaty Council will complete a three-part project to 1) employ Structure from Motion in rivers and estuaries to assess geomorphological changes, 2) develop a sediment analysis laboratory and expand methodologies for suspended sediment movement sampling into new estuaries and rivers, and 3) analyze PNPTC's projected streamflow changes to aid salmon recovery and assess vulnerabilities.

Tribe: Port Gamble S'Klallam Tribe **Amount Funded:** \$150,000

Title: *Port Gamble S'Klallam Tribe, Ocean and Coastal Management Planning*

Project Description: Shellfish are an important traditional food and resource for the Port Gamble S'Klallam Tribe (PGST). Coastal erosional processes threaten the Tribe's traditional shellfish beds. Shellfish and substrate surveys will be conducted to assess the risk to tribal shellfish resources from accelerating bluff erosion. By examining the relationship between bluff and beach composition and shellfish habitat suitability, the Tribe will be better informed to protect, preserve, and invest in shellfish beds in the surrounding U&A. The project will improve the Tribe's ability to plan for adaptation to sea level rise and wise investment to protect and preserve shellfish resources.

Tribe: Suquamish Indian Tribe of the Port Madison Reservation **Amount Funded:** \$148,981

Title: *Exploring population genetics and assessment tools critical for managing and protecting Basket Cockies, *Clinocardium nuttallii*, a culturally significant bivalve*

Project Description: Suquamish Indian Tribe will coordinate sampling with Puget Sound Restoration Fund, NOAA and



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Washington Dept. of Fish and Wildlife; perform intertidal and sub-tidal surveys; assess for genetic structure within Puget Sound; determine distribution of neoplasia, assess larval response to ocean acidification; develop potential restoration and resilience management strategies based on results.

Tribe: Swinomish Indian Tribal Community **Amount Funded:** \$ 97,123
Title: *Building capacity for Swinomish crab research: Developing a more resilient Dungeness crab fishery through improved collaborative science*

Project Description: Funding from this grant will provide the Swinomish Tribe with the opportunity to build capacity for a collaborative research effort aimed at developing a more resilient Dungeness crab fishery. The strategy will facilitate the advancement of the mission and goals of the Pacific Northwest Crab Research Group, a newly formed network of scientists and managers. Secondly, the vulnerability of juvenile crab will be investigated in a study aimed at improving coastal management. By focusing on these two strategies, we will bolster the statewide use of standardized science-based tools, improving the Tribe's collective ability to adapt fisheries management to future change.

Tribe: The Tulalip Tribes of Washington **Amount Funded:** \$149,548
Title: *Tulalip Tribes Ocean and Coastal Management Planning – Bolstering Tribal Participation and Filling Crucial Data Gaps Essential to Understanding Vulnerabilities to Salmon and Marine Treaty Resources.*

Project Description: The funding will be used to expand the Tulalip Tribes' participation in inter-agency collaborative research and bridge gaps in scientific understanding of the ecological factors that determine the survival and resilience of treaty resources. The funding will improve the Tribes' ability to collaborate with state and federal agencies, and other tribes to better understand the complex marine ecosystems that juvenile salmon depend during critical transitional freshwater, estuarine, and marine growth phases. This work will help identify the harmful ecological trends that comprise the dominant threats these resources so they can be properly managed.

Tribe: Village of Bill Moore's Slough **Amount Funded:** \$142,652
Title: *Village of Bill Moore's Slough Flood Inundation Risk Assessment*

Project Description: The funding will increase the Tribe's capacity to plan for flood inundation resulting from the combination of sea level rise, subsidence, and increasingly severe precipitation events. The Tribe will partner with the State of Alaska Coastal Hazards Program to: (1) install a tidal datum to measure water levels, update orthoimagery, and collect bathymetry data; (2) conduct coastal storm and flooding monitoring; (3) identify flood inundation risks. This partnership will produce a final flood inundation risk report and presentation that will serve as the foundation for the entire community's strategic planning to mitigate near-term and long-term flood risks. This project will have an immediate benefit to the Tribe's efforts to combat harmful environmental trends and their many associated negative consequences upon the community. The project will result in increased Tribal capacity, increased awareness at the state and national level about flooding and sea level rise in the community, and the project will increase capacity to secure funding to implement solutions to mitigate the flooding threat. This project will benefit all residents in the community, three federally recognized Tribes, the local City and Village Corporation government, as well as a host of tribal, state, and federal organizations. Finally, the Tribe is contributing a significant cash match to the project.

Tribe: Village of Cheforak **Amount Funded:** \$146,721
Title: *Understanding the Influence: Coastal Planning and Data Collection for the Cheforak Tribe*



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Project Description: The Village of Chefornak will complete a comprehensive Geotechnical Characterization Program (the Program) that will allow the community to advance to the implementation phase of multiple infrastructure protection and migration projects that have resulted from harmful environmental trends and extreme events. The Program will conduct a geotechnical investigation of the community's barge landing, existing river front, and Head Start building, all of which are imminently threatened resources; conduct a geotechnical and geophysical investigation of a proposed new subdivision site to ensure the community is able to move or rebuild other threatened infrastructure in a safe area; and conduct a ground temperature array, which is data the community can use to understand the thermal profile of their site and inform future work in relation to thawing permafrost and building foundations.

Tribe: Yurok Tribe

Amount Funded: \$134,975

Title: *Yurok Tribe Coastal Resource Restoration Implementation and Planning in Blue Creek, Klamath River*

Project Description: This work is designed to support coastal resource planning and implementation of restoration efforts within Blue Creek in Northern California, a management priority tributary of the Lower Klamath River. This project funds: 1) continued removal of feral cattle from Blue Creek watershed, 2) continued monitoring of feral cattle population and demography, 3) planning for long term exclusion of cattle from sensitive areas, and 4) planning for wetland and tributary restoration along lower Blue Creek; with the ultimate goal of improving anadromous fish habitat in the Blue Creek Watershed.

Tribal Organization: Chugach Regional Resources Commission (CRRC)

Amount Funded: \$137,061

Title: *Chugach Regional Resources Commission Coastal Adaptation and Resilience Assessment*

Project Description: CRRC will develop of a Coastal Adaptation/Vulnerability Assessment to help CRRC understand how environmental change will or may already be affecting member Tribes and natural resources. A Coastal Adaptation and/Vulnerability analysis will help the organization understand what resources are most and least vulnerable, and why they are vulnerable or not. This project will build organizational and individual Tribe's capacity to address future ocean and coastal adaptation management planning, data analysis and implementation and it will allow CRRC to consult with elders and community members and prepare a set of narrative stories to illustrate how the environment has changed over time from their perspectives.

Tribal Organization: Kodiak Area Native Association (KANA)

Amount Funded: \$150,000

Title: *Kodiak Area Native Association - Expansion of Collective Monitoring of Harmful Algal Blooms and Marine Biotoxins on Kodiak Archipelago: Advancing Tribal Resilience and Subsistence Food Security*

Project Description: In 2019, Kodiak Area Native Association (KANA) began developing harmful algal bloom (HAB) baseline data for the Kodiak region. KANA will increase monitoring of HABs in two village communities as well as increase knowledge about HABs and biotoxins in Kodiak waters. KANA also will develop a strategic HAB action plan for the Kodiak Region. This plan will relay shellfish toxicity levels through project awareness outreach and development of "HAB Hubs" near harvesting beaches. HAB Hubs will display project information, data, and the most recent results. The project will support harvesters and safe subsistence lifestyles.



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Tribal Organization: Northwest Indian Fisheries Commission (NWIFC) **Amount Funded:** \$148,408

Title: *Building Marine Resource Management Resilience among the Member Tribes of the Northwest Indian Fisheries Commission – Phase 2*

Project Description: The NWIFC will continue the work started in their FY 18 grant (A19AP00098) by 1) creating full Lifecycle Vulnerability Assessments for priority fish stocks; 2) work with tribal technical staff and invited experts to begin to define Indicators and Environmental Thresholds for priority fish stocks; and 3) continue to build upon monitoring and data sharing activities.

Category 5: Travel Support for Ocean and Coastal Management

Travel Support for Ocean and Coastal Management Planning for Marine and Coastal Resources

Number of Awards: 16 **Amount Funded:** \$177,402

Project Description for All Category 5 Awards: These funds will support direct travel costs for tribal leaders or staff participation in, coordination, or training for interagency ocean and coastal management and planning, including meetings of Regional Planning Bodies.

Tribal Organization: Cahto Tribe of the Laytonville Rancheria **Amount Funded:** \$ 7,569

Title: *Cahto Tribe of the Laytonville Rancheria Travel for Ocean and Coastal Management Planning*

Tribal Organization: Cher Ae Heights Indian Community of the Trinidad Rancheria **Amount Funded:** \$ 11,971

Title: *Cher Ae Heights Indian Community of the Trinidad Rancheria Travel for Ocean and Coastal Management Planning*

Tribal Organization: Chinik Eskimo Community **Amount Funded:** \$ 12,529

Title: *Chinik Eskimo Community Travel for Bering Sea Storm Surge Hazard Reduction*

Tribal Organization: Houlton Band of Maliseet Indians **Amount Funded:** \$ 6,127

Title: *Houlton Band of Maliseet Indians Travel for Ocean and Coastal Management Planning*

Tribal Organization: Native Village of Hamilton **Amount Funded:** \$ 7,855

Title: *Native Village of Hamilton Travel for Protecting Infrastructure, People, and Natural Resources in the Coastal Community*

Tribal Organization: Native Village of Napakiak **Amount Funded:** \$ 11,409

Title: *Native Village of Napakiak Travel for a River Morphology Study and Managed Retreat Work Plan*

Tribal Organization: Native Village of Nunapitchuk **Amount Funded:** \$ 14,508



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Title: *Native Village of Nunapitchuk Travel for Public Safety Building Design*

Tribe: Native Village of Savoonga **Amount Funded:** \$ 12,456

Title: *Native Village of Savoonga Travel for Coastal Community: Island Planning*

Tribe: Native Village of Shishmaref **Amount Funded:** \$ 12,668

Title: *Native Village of Shishmaref Travel for Home Relocation Planning*

Tribe: Native Village of Unalakleet **Amount Funded:** \$ 12,104

Title: *Native Village of Unalakleet Travel for a Feasibility Study to Assess the Establishment of a Regional Norton Sound UAS-Based Data Collection, Self-Sustaining Program (Planning for Subsistence Management in Changing Conditions) – Phase II*

Tribe: Newtok Village Council **Amount Funded:** \$ 14,941

Title: *Newtok Village Council Travel for Critical Transportation Infrastructure for the Coastal Community*

Tribe: Petersburg Indian Association **Amount Funded:** \$ 4,947

Title: *Petersburg Indian Association Travel for an Ocean and Coastal Management Planning Workshop*

Tribe: Village of Alakanuk **Amount Funded:** \$ 13,108

Title: *Village of Alakanuk Travel for a Flood Inundation Risk Assessment*

Tribe: Village of Chefornak **Amount Funded:** \$ 14,910

Title: *Village of Chefornak Travel for Understanding the Influence: Coastal Planning and Data Collection*

Tribal Organization: Alutiiq Pride Shellfish Hatchery(APSH), a division of the Chugach Regional Resources Commission (CRRC) **Amount Funded:** \$ 15,000

Title: *APSH Division of the CRRC Travel for a Coastal Adaptation and Resilience Assessment*

Tribal Organization: Kodiak Area Native Association (KANA) **Amount Funded:** \$ 5,300

Title: *KANA Travel for Expansion of Collective Monitoring of Harmful Algal Blooms and Marine Biotoxins on Kodiak Archipelago: Advancing Tribal Resilience and Subsistence Food Security*



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Category 6: Capacity Building

To support tribes with limited technical and staffing capacity to carry out risk scoping activities that can lead to more detailed future adaptation planning proposals

Number of Awards: 5

Amount Funded: \$249,984

Tribe: Confederated Tribes of the Chehalis Reservation	Amount Funded: \$ 50,000
Tribe: Coquille Indian Tribe	Amount Funded: \$ 49,984
Tribe: Fort Independence Indian Community of Paiutes [Fort Independence Indian Reservation (FIIR)]	Amount Funded: \$ 50,000
Tribe: Kokhanok Village	Amount Funded: \$ 50,000
Tribe: Native Village of Wales	Amount Funded: \$ 50,000



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Total Number of Awards: 138

Total Amount Funded: \$12,699,059

Category 1: Trainings and Workshops

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

Number of Awards: 18

Amount Funded: \$2,302,228

Tribe: Blackfeet Tribe

Amount Funded: \$137,880

Title: *Blackfeet Nation Adaptation Workshops to Build Resilience*

Project Description: This funding will create a series of workshops to integrate the Blackfeet Adaptation Plan into the Tribe's existing work and to create monitoring and evaluation goals to measure progress towards building resilience. In addition to workshops, we will post the tools and monitoring goals built from the workshops to the Blackfeet Adaptation website to inspire our community and inform resilience-building efforts by tribes across the United States.

Tribe: Confederated Salish and Kootenai Tribes

Amount Funded: \$147,456

Title: *Confederated Salish and Kootenai Tribes Resilience Planning for Extreme Events and Harmful Environmental Trends*

Project Description: This funding will enable a series of trainings and workshops that build on CSKT's Climate Change Strategic Plan. Tribal Stakeholders and participating experts will plan and develop implementation actions to address threats and develop monitoring and evaluation metrics to assess progress towards adaptation planning using best management practices.

Tribe: La Jolla Band of Luiseno Indians

Amount Funded: \$149,015

Title: *2019 Southwestern Tribal Climate Change Summit*

Project Description: Funding will create an event that will bring together Tribal leaders, resilience coordinators, planners, program managers, scientists, communications experts, educators, and students to build off key topics from a 2017 Summit, that brought together 190 attendees from 48 tribes, to share new resources and develop skills and capacity to advance Tribal resilience planning. The summit will focus on how we move beyond discussions of impacts and focus on advancing solutions and will feature insightful plenaries, breakout groups, an interactive field trip experience, a leadership panel, a community forum, interactive demonstrations from leaders/teachers from Idyllwild Arts Academy Native American programs, and a youth component.

Tribe: Nez Perce Tribe

Amount Funded: \$98,269

Title: *Nez Perce Tribe Workshop on Wetland and Riparian Restoration: Planning for Change and Culture Resilience*

Project Description: This funding will provide workshops to demonstrate the development and use of the Restoration Toolkit for Cultural and Ecological Resilience for guiding wetland and riparian restoration planning and implementation projects that are resilient and culturally relevant.



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Tribe: Nooksack Indian Tribe **Amount Funded:** \$17,957

Title: *Develop and Present Training Workshop and Webinar on the "Tribal Interests in Addressing Dry Season Low Stream Flow and Extreme Events through Innovative Watershed Management"*

Project Description: This funding will support the development and presentation of a workshop and webinar for Tribes in the Pacific Northwest on the final results and outcomes of Nooksack's Climate Change/Extreme Event project through June 2018 as well as the results of the research conducted under the BIA's Category 2 proposal. It will also provide training for other tribes in similar watersheds.

Tribe: Pala Band of Mission Indians **Amount Funded:** \$149,957

Title: *PBMI Tribal Health and Adaptation Planning National Training Project*

Project Description: This funding will provide human health focused adaptation planning training, resources, and support for Native American Tribes at a Tribal Health Adaptation Planning Workshop, a Tribal Health Adaption Summit, plus a Tribal Health Adaptation Planning webinar series, and presentations. Events will provide in-depth guidance on: Understanding Extreme Events, Harmful Environmental Trends, and Impacts, Extreme Events and Harmful Environmental Trends – Human Health Impacts and Strategies, Assessing Vulnerability to Extreme Events and Harmful Environmental Trends, Preparing an Adaptation Plan for Extreme Events and Harmful Environmental Trends, and Implementing an Adaptation Plan for Extreme Events and Harmful Environmental Trends.

Tribe: Quapaw Tribe of Oklahoma **Amount Funded:** \$119,665

Title: *Quapaw Tribe Hazard Adaptation Workshop Project*

Project Description: Native American Tribes at a Tribal Health Adaptation Planning Workshop, a Tribal Health Adaption Summit, plus a Tribal Health Adaptation Planning webinar series, and presentations. Events will provide in-depth guidance on: Understanding Extreme Events, Harmful Environmental Trends, and Impacts, Extreme Events and Harmful Environmental Trends – Human Health Impacts and Strategies, Assessing Vulnerability to Extreme Events and Harmful Environmental Trends, Preparing an Adaptation Plan for Extreme Events and Harmful Environmental Trends, and Implementing an Adaptation Plan for Extreme Events and Harmful Environmental Trends.

Tribe: Sac and Fox Nation of Missouri **Amount Funded:** \$127,860

Title: *Sac and Fox Nation of Missouri Resilience Training and Workshops*

Project Description: This funding will provide trainings and workshops for the nine tribes of Kansas, Nebraska, and Iowa that will assist Tribal leaders, program coordinators, planners and managers develop and utilize skills that will allow them to competently address the threat of extreme events and harmful environmental trends their communities face on both a local and regional basis. Key components in the trainings and workshops will be providing tribes with information needed to create Drought Early Warning Systems along with adaptation strategies, and flooding threats as extreme events promise more precipitation over a shortened period of time.

Tribe: Saint Regis Mohawk Tribe **Amount Funded:** \$150,000

Title: *The Akwesasne Cultural Restoration Program: Tsionkwaia'tahni:rats/To Strengthen Us Again*

Project Description: This funding will combine Traditional Ecological Knowledge (TEK) with Scientific Environmental Knowledge (SEK) for a holistic approach to increasing tribal resiliency through training and workshops that transfer



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knowledge through generations, with an emphasis on harvesting, preparing, and storing natural resources in the specific areas of fishing, trapping, traditional medicines and horticulture, and combine it with scientific data, field surveys, monitoring and preservation techniques. The community will then be informed on best practices for capacity building and future development of management options, in the face of extreme events and harmful environmental trends, based on results of the combined disciplines.

Tribe: Tuolumne Band of Me-Wuk Indians **Amount Funded:** \$100,764
Title: *Tuolumne GIS Adaptation Planning Training*

Project Description: This funding will address vulnerability to extreme events and harmful environmental trends through development of regionally focused training, adaptation planning, and data development, while providing travel to access training to build skills and capacity in GIS applications.

Tribe: Zuni Cultural Resource Enterprise, Inc **Amount Funded:** \$140,104
Title: *Pueblo of Zuni Workshop and Adaptation Planning for Challenges Presented by Extreme Events and Harmful Environmental Trends - Component I*

Project Description: This funding support collaboratively developed workshops and trainings between Western scientists and Zuni traditional knowledge holders and practitioners to address the short- and long-term concerns and needs of the Zuni Tribe in confronting the challenges presented by extreme events and harmful environmental trends by providing a culturally appropriate and scientifically sound path to developing adaptation and resilience, the delivery of data and tools, and tribal capacity building.

Tribal Organization: Affiliated Tribes of Northwest Indians **Amount Funded:** \$149,286
Title: *Affiliated Tribes of Northwest Indians (ATNI) NW Regional Climate Resilience Project*

Project Description: This funding will provide climate change training, workshops, and travel support to elected Tribal leaders, tribal management, climate change coordinators, planners and technical staff of the 61 Tribes of ATNI. As part of a collaborative effort among Tribal Governments, Universities, and Federal Cooperators, ATNI will coordinate design and host the 3rd Annual Tribal Climate Camp and the 4th Annual Tribal Leaders Summit on Climate Change.

Tribal Organization: Aleutian Pribilof Islands Association, Inc. **Amount Funded:** \$145,065
Title: *TRP Prop 1-Looking Forward, Looking Back: Building Resilience Today*

Project Description: This funding will build resilience to extreme events and harmful environmental trends by engaging multiple tribal leaderships and environmental staff through trainings and workshops. Initial trainings will create a common understanding between western scientists and traditional knowledge of tribal participants in regards to historical, current and future environmental trends and key adaptation concepts. Following on-site workshops are aimed at documenting Indigenous Knowledge of 1) a traditional use area, 2) a list of priority subsistence species and, 3) and Indigenous Knowledge of environmental changes and impacts. A final training will be held for tribal participants to practice using a variety of online tools developed for resilience and adaptation planning in Alaska.



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Tribal Organization: Learning Center at the Euchee Butterfly Farm, Inc. **Amount Funded:** \$149,500

Title: *Tribal Alliance for Pollinators: Building Tribal Capacity for Native Plant Restoration to Prevent Top Soil Erosion and Preserve Culturally Significant Plants During Drought*

Project Description: This funding will enable the Learning Center at the Euchee Butterfly Farm to conduct training and workshops for Oklahoma's 39 tribes on methods of restoring native plants, which play important roles in ceremonial, medicinal, and culinary traditions, to grassland ecosystems on tribal land. Instruction will cover identification and harvest of native plant seeds, native plant propagation, site preparation, planting at restoration sites and long-term site management. Education and technical assistance will be provided on how grassland restoration practices can support agricultural production through pollinator enhancement and improve pasture quality for grazing.

Tribal Organization: Tolani Lake Enterprises, Inc. **Amount Funded:** \$150,000*

Title: *Building Resiliency with Native Seeds: A Restoration Training Model for Southwest Tribes*

Project Description: This funding will support Tolani Lake Enterprises to directly address environmental hazards of increasing aridity and soil erosion on Navajo Nation, Yavapai-Apache Nation, and the Hopi Reservation by creating a replicable training and demonstration model that builds tribal capacity to use native seeds to restore degraded tribal lands. The program integrates Western science with traditional ecological knowledge. *Project partnering with USGS.

Tribal Organization: Tulalip Foundation **Amount Funded:** \$71,445

Title: *Tulalip Foundation Training for a Changing Environment*

Project Description: This funding will build tribal resilience through enhancing understanding about the environmental changes on the Tulalip Indian Reservation for tribal leadership, membership, and youth with targeted presentations. It will build on participant's insights to inform strategies to adapt to changes, and increase capacity for all to advocate for and implement environmentally sustainable practices.

Tribal Organization: United South and Eastern Tribes, Inc. **Amount Funded:** \$150,000

Title: *United South and Eastern Tribes Eastern Tribal Resilience Summit*

Project Description: This funding will allow the United South and Eastern Tribes to host the 2019 Eastern Tribal Resilience Summit. The goal of the Summit is to engage Tribal leadership and professional staff in building resilience to Extreme Events and Harmful Environmental Trends impacting eastern Tribal Nations. USET will partner with the Northeast and Southeast Climate Adaptation Science Centers to design and host the Summit to provide scientific information, examples of applied traditional knowledge, and case studies of Tribal resilience and adaptation planning.

Tribal Organization: Upper Snake River Tribes Foundation, Inc. **Amount Funded:** \$148,005

Title: *Foundation Tribal Community Outreach and Engagement Workshop and Youth Tours to Build the Resilience of the Aquatic, Terrestrial, and Tribal Enterprise Resources in the Upper Snake River Watershed of Idaho, Nevada, Oregon, and Wyoming*

Project Description: This funding will develop education/outreach materials using adult and youth learning techniques and be used to conduct engagement workshops for tribal leadership, tribal staff, tribal membership and tribal youth. This will disseminate climate-based knowledge, support actions that reduce the risk that extreme



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weather events and harmful environmental trends pose to the member tribes, and inform tribal members of USRT's Climate Adaptation and Resilience projects.

Category 2 : Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, Data, and Data Analysis

Number of Awards: 42

Amount Funded: \$5,633,651

Tribe: Capitan Grande Band of Diegueno Mission Indians of California:
Viejas (Baron Long) Group of Capitan Grande Band of Mission
Indians of the Viejas Reservation, California

Amount Funded: \$46,958

Title: *Viejas Environmental Adaptation Planning Program (VEAPP)*

Project Description: This funding will allow the Tribe to use the priorities set forth in its Vulnerability Assessment to develop a comprehensive, holistic Adaptation Strategy. This strategy would use scientific evidence to support its recommendations while maintaining a heavy focus on the preservation of Traditional Ecological Knowledge and cultural resources.

Tribe: Chippewa Cree Indians of the Rocky Boy's Reservation, MT

Amount Funded: \$146,872

Title: *Chippewa Cree Tribe Resilience and Emergency Management Project (CCTREMP)*

Project Description: This funding will create the Chippewa Cree Tribe Resilience and Emergency Management Project which will address vulnerability and needs to extreme events and responses to harmful environmental trends. It will focus on the coordination of emergency response activities for the Rocky Boy's Reservation, including the facilities, staff and standard operating procedures to facilitate coordination of emergency management activities, to facilitate policy formulation, establish priorities, analyze information, incident planning and plan execution.

Tribe: Confederated Tribes of the Umatilla Indian Reservation

Amount Funded: \$150,000

Title: *CTUIR Huckleberry Phenology & Soil Moisture Supplemental Data Development Study*

Project Description: This funding will develop a huckleberry data development pilot protocol for use in adaptation and resilience planning. The project will acquire and deploy scientific equipment necessary to establish long term data collection sites and will produce data for use in verifying and revising USFS and CTUIR predictive modeling efforts for Columbia River Treaty tribes.

Tribe: Council of Athabascan Tribal Governments

Amount Funded: \$150,000

Title: *Council of Athabascan Tribal Governments Adaption Planning and Data Development Single village complete indoors and outdoors data on PM2 aerosol*

Project Description: Funding for this project will assess the vulnerability of communities in the Yukon Flats due to climate-change related air pollution and develop the basis for a first step in creating climate adaptation plans. The project will deploy four air quality monitors and meteorological measuring sites strategically around Ft Yukon. It will locate 20+ indoor aerosol monitors within homes and businesses. It will conduct a survey of home construction type and heating. It will analyze data using GIS for visual comparison of the gradient between indoor and outdoor aerosol concentrations and publish results.



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Tribe: Eastern Shoshone and Northern Arapahoe Tribes **Amount Funded:** \$48,598*
Title: *Wind River Reservation Drought Adaptation Planning*

Project Description: This funding will extend the Wind River Reservation Drought Preparedness Project. It will support a full-scale drought planning process to engage stakeholders across multiple departments, sectors, and communities to develop the Plan. This will also include continued outreach and capacity building for tribal natural resources staff, students, and the greater community. *Project partnering with Colorado State University.

Tribe: Flandreau Santee Sioux Tribe **Amount Funded:** \$150,000
Title: *Developing Drought Adaptation Plans for the Flandreau Santee and Standing Rock Sioux Tribes*

Project Description: This funding will develop Drought Adaptation Plans for the Flandreau Santee Tribe (FST) and the Standing Rock Sioux Tribe (SRST). This project is unique in that it is being sponsored in part by the Great Plains Tribal Water Alliance (GPTWA). The drought plan will serve as a platform to improve resilience where possible and as a framework to connect other planning/resilience efforts like Multi-Hazard Mitigation Plans and Agricultural Resource Management Plans. This plan will build off of the Drought Vulnerability Assessment done in BIA 2016 Tribal Climate Resilience Grant Category 1 and 2.

Tribe: Igiugig Village **Amount Funded:** \$80,241
Title: *Igiugig Village Adaptation Assessment Project*

Project Description: This funding will develop an Adaptation Assessment for the Igiugig Village. The Adaptation Assessment will identify vulnerable infrastructure and assets and map out a strategy to mitigate the impact of adverse climate-related events. The project will address extreme events and harmful environmental trends that impact Village resources, economy, infrastructure, health and welfare. The Project includes planning strategy, objectives, milestones, outcomes, measurements of success, timeline, and deliverables. Science and Traditional Knowledge will be integrated into the process. The project is an Adaptation Assessment that hires a part-time Project Coordinator to take the lead, forms a planning team that meets regularly and works through the steps outlined in U.S. Climate Resilience Toolkit and the Tribal Climate Change Adaptation Planning Toolkit, seeks technical assistance as needed and implements the completed assessment plan.

Tribe: Lac du Flambeau Band of Lake Superior Chippewa **Amount Funded:** \$150,000
Title: *Lac du Flambeau Vulnerability Assessment Project*

Project Description: The project for this funding will build off of the Tribe's resilience initiative and develop a comprehensive resilience management plan that supports the Tribe's preparedness and response to extreme events and harmful environmental trends. It will expand upon ongoing work to gain a better understanding of the vulnerabilities of key food and cultural resource species and to increase the capacity of Lac du Flambeau tribal program/department managers to incorporate resource resiliency into their everyday management. The Tribe will conduct traditional ecological knowledge (TEK) interviews to assess the vulnerability of animal and plants and fish species, including medicinals, which will assist in the development of a traditional food pyramid which incorporates the harvests during the four seasons. The results will be presented at a symposium for tribes and tribal organizations in the region.



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Tribe: Native Village of Chefnak **Amount Funded:** \$131,587

Title: *Downscaled Environmental Modeling and Risk Assessment for the Native Village of Chefnak*

Project Description: This funding will provide for the hiring of an environmental modeling consulting firm to develop a downscaled risk assessment for our community and its relocation site. The project will use science to assess risks, increase capacity to develop effective adaptation strategies, enable engineers to design resilient infrastructure, demonstrate the severity of environmental risks to agency and elected decision-makers, and will help us secure funding to protect our community from harmful environmental trends.

Tribe: Native Village of Georgetown **Amount Funded:** \$150,000

Title: *Native Village of Georgetown's Middle Kuskokwim Adaptation Plan*

Project Description: This funding will enable expansion of Georgetown's Vulnerability Assessment to include regional concerns, a Middle Kuskokwim Adaptation Plan, and the collection and preservation of traditional ecological knowledge (TEK) for the Middle Kuskokwim Region of Alaska. Funding will build capacity through training and job development.

Tribe: Native Village of Napakiak **Amount Funded:** \$131,586

Title: *Downscaled Environmental Modeling and Risk Assessment for the Native Village of Napakiak*

Project Description: This funding will provide for the hiring of an environmental modeling consulting firm to develop a downscaled risk assessment for our community and its relocation site. The project will use science to assess risks, increase capacity to develop effective adaptation strategies, enable engineers to design resilient infrastructure, demonstrate the severity of environmental risks to agency and elected decision-makers, and will help us secure funding to protect our community from harmful environmental trends.

Tribe: Newtok Village Council **Amount Funded:** \$149,736

Title: *Downscaled Environmental Modeling and Risk Assessment for the Native Village of Newtok Relocation Site*

Project Description: This funding will provide for the hiring of an environmental modeling consulting firm to develop a downscaled risk assessment for our community and its relocation site. The project will use science to assess risks, increase capacity to develop effective adaptation strategies, enable engineers to design resilient infrastructure, demonstrate the severity of environmental risks to agency and elected decision-makers, and will help us secure funding to protect our community from harmful environmental trends.

Tribe: Nez Perce Tribe **Amount Funded:** \$68,557*

Title: *Resiliency planning for extreme events, harmful environmental trends, and land cover impacts to salmon, wetlands, and prairies on the Nez Perce Tribal Reservation*

Project Description: This funding will support development of a dataset and tools to inform decision making for vulnerabilities to tribal enterprises, natural resources, and food sovereignty resulting from increasingly extreme cycles of drought, heat waves, wildfire, extreme precipitation, and erosion, and will assist in resilient land use planning. Baseline data will be collected and a model developed to evaluate the outcome of land management scenarios on hydrologic dynamics, wildlife habitat/biodiversity, and fisheries. Funding will support data acquisition, preliminary



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forest and agricultural modeling, and identification of locations and management practices for pilot studies. *Project partnering with University of Idaho.

Tribe: Nooksack Indian Tribe **Amount Funded:** \$150,000

Title: *Evaluating the Impact of Commercial Forestry on Streamflows and Species in the Nooksack River Watershed to Facilitate the Nooksack Indian Tribe's Resilience and Adaptation Planning*

Project Description: This funding will support the Tribe to conduct public outreach and stakeholder engagement of the commercial forestry community on voluntary actions that could be implemented that would reduce the impact of forestry on late-season flows. They will adapt lessons from other relevant watersheds and help integrate the findings in the evaluation of forest cover with a transaction framework. The Tribe will act on the vulnerability information from previous work by preparing an adaptation plan for targeted species and plant communities of particular importance to the Tribe. This work supports the ability of the Tribe to promote and rely on sustainable surpluses of salmon in the Nooksack River for ceremonial, cultural, subsistence, and commercial uses.

Tribe: Northern Cheyenne Tribe **Amount Funded:** \$119,939

Title: *Northern Cheyenne Tribe's Adaptation Planning #2: Adaptation Planning*

Project Description: This funding will be used to implement the Northern Cheyenne Drought Resiliency Plan Update. The Drought Resiliency Plan Update will be comprised of six components centered around the concept of resilience. These components will include improvements in drought monitoring; improved understanding of cultural and natural resources key vulnerabilities; mitigation activities that can minimize the Tribe's exposure to drought; and response actions that can limit the impacts of an ongoing drought. The final two components will involve a process to administer the plan and an approach to evaluate and update it on an ongoing basis.

Tribe: Pueblo of Laguna **Amount Funded:** \$150,000

Title: *Pueblo of Laguna Vulnerability Assessments for Adaptation Planning*

Project Description: This funding will initiate adaptation planning with regards to vulnerability assessments on the effects of extreme events and harmful environmental trends, specifically extreme weather, on human health and safety, and on infrastructure and the built environment. The project will include contracting with a consultant; holding a kickoff meeting; describing a comprehensive concept of Pueblo of Laguna health & safety values and concerns; developing a comprehensive understanding of concerns regarding infrastructure and the built environment; preparing a vulnerability assessment analyzing exposure, sensitivity, and adaptive capacity; prioritizing future adaptation planning; and developing a final document.

Tribe: Pueblo of Santa Ana **Amount Funded:** \$149,998

Title: *Extreme Drought Adaptation Planning: Phase I, Data Development on the Pueblo of Santa Ana*

Project Description: This funding will help the Pueblo mitigate and overcome the impacts of expected future extreme droughts to its resources, and, ultimately, to its cultural persistence through data development and adaptation planning and training for Department of Natural Resources staff.



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Tribe: Quapaw Tribe of Oklahoma **Amount Funded:** \$141,963

Title: *Quapaw Tribe Flood Hazard Adaptation Planning Project*

Project Description: This funding will hire a qualified engineering contractor to develop a Watershed Mitigation Plan (WMP) that addresses storm water runoff and its effects on the impaired water quality and sediment in the Tar Creek Superfund site that has plagued the Tribe and downstream users (including multiple other tribes) for many decades. The WMP will include design criteria for future projects that will improve water drainage and sediment quality along Tar Creek near Highway 69 and the Douthat Bridge area.

Tribe: Quinault Indian Nation **Amount Funded:** \$100,000

Title: *Surviving the Future: Adapting Quinault Indian Nation Ocean Fishery Management*

Project Description: This funding will create an Adaptation Plan to forecast and manage for impacts from a changing environment on culturally and economically important ocean resources including marine fish, shellfish, salmon, steelhead and the habitats that support them. The Plan will serve as a cornerstone for the Quinault Indian Nation to maintain access to its treaty reserved fisheries in the face of an uncertain future. Information and recommendations from this plan will be shared with and benefit all fellow ocean managers on the Washington coast including neighboring Olympic Coast treaty tribes.

Tribe: Red Lake Band of Chippewa Indians **Amount Funded:** \$116,572

Title: *Red Lake Band Midwest Regional Resilience Planning and Data Management Project*

Project Description: Funding for this project provides a platform to develop data management and analysis tools and guidelines to support long-term monitoring related to resiliency and adaptation and to increase capacity for tribes in the region. It will build on an effort to assess current and future data usage needs with specific attention to continuous data and traditional ecological knowledge (TEK) at a regional scale. The data management tools developed will improve resolution of climate change effects and may provide valuable information about “tipping points” or “triggers” that may indicate the need to take a particular adaptive step in management. Tribal staff will receive training in the use of tools associated with the outcomes of the strategy.

Tribe: Rosebud Sioux Tribe **Amount Funded:** \$150,000

Title: *Developing Drought Adaptation Plans for the Rosebud Sioux Tribe and Oglala Sioux Tribe*

Project Description: This funding will develop Drought Adaptation Plans for the Rosebud Sioux Tribe (RST) and the Oglala Sioux Tribe (OST). This project is unique in that it is being sponsored in part by the Great Plains Tribal Water Alliance (GPTWA). The drought plan will serve as a platform to improve resilience where possible and as a framework to connect other planning/resilience efforts like Multi-Hazard Mitigation Plans and Agricultural Resource Management Plans. This plan will build off of the Drought Vulnerability Assessment done in BIA 2016 Tribal Climate Resilience Grant Category 1 and 2.

Tribe: Sac and Fox Nation **Amount Funded:** \$145,571

Title: *Sac and Fox Nation One Water: Drought Vulnerability and Response Plan*

Project Description: This funding will develop a Drought Vulnerability and Response Plan. The plan will include an analysis of drought vulnerabilities, determination of potential response and mitigation strategies, and ongoing tribal



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outreach activities. The plan will provide tools to water managers to respond to and reduce the risk of drought conditions and will also be used to guide ongoing public education, management and drought mitigation activities.

Tribe: Saint Regis Mohawk Tribe **Amount Funded:** \$131,908
Title: *Developing Resiliency Tools and Policies to Prepare the Saint Regis Mohawk Tribe for Flood Related Impacts*

Project Description: This funding will address issues related to coastal development and adaptation planning on the St. Lawrence River. The project will address the barriers to overcome in the development of adequate tribal policy response to these challenges involves: 1. access to accurate information, 2. the means to adapt the information (and tools) to address local issues, 3. funding to develop tribal policies, standards and protocols to build tribal resilience, and 4. increasing the public's understanding of the available tools and resources. The project will bring together applicable data and tools into one report and make recommendations for future tribal policy.

Tribe: Samish Indian Nation **Amount Funded:** \$130,000
Title: *Samish Indian Nation Adaptation and Resilience Initiative - Phase 3*

Project Description: This funding will expand on the existing adaptation plan by evaluating and prioritizing possible adaptation strategies and mapping a comprehensive path to resiliency that focuses on key vulnerabilities and ensures cultural resources are sustained for the 7th generation. This project would also increase resiliency by integrating findings from the vulnerability and risk assessment into the upcoming Samish Comprehensive Plan as well as other appropriate program level management plans. It will also create a vetted list of adaptation project designs for each of the highest priority adaptation strategies to implement as funding becomes available. Finally, this work will increase Samish Tribal Capacity to engage with other Tribal, Local, State and Federal agencies to ensure that Tribal concerns with regards to extreme events and harmful environmental trends are addressed.

Tribe: Sault Sainte Marie Tribe of Chippewa Indians **Amount Funded:** \$109,230
Title: *Building Ecological Resilience through Inter-agency Adaptation Planning and Adaptive Management of Ishkode (fire) in Boreal Transition Ecosystems*

Project Description: Funding for this project will enable the development of a regional inter-agency adaptation planning process aimed at sustaining and enhancing boreal transition ecological systems. The project builds on and incorporates the Tribe's previous work in resilience and Adaptation Planning, the collection of Anishinaabe Community Knowledge and collaborative regional planning and management of important ecological systems. It will engage and revitalize Anishinaabe Community Knowledge for tribal fire management planning, pre- and post-fire ecological assessments, and development of an Inter-Agency Adaptive Fire Management Plan.

Tribe: Seminole Tribe of Florida **Amount Funded:** \$88,600
Title: *Seminole Tribe of Florida Adaptation Planning*

Project Description: This funding will establish resiliency for extreme weather events and harmful environmental trends that the Tribe faces on its seven reservations and trust lands, by directly supporting the development of a vulnerability assessment, data collection, and analysis. Scientific methods and traditional knowledge will be combined to develop strategic planning to assess and prioritize adaptation options. Funding will increase capacity by supporting training on data collection and analysis, vulnerability and risk assessment, and Geographic Information Systems (GIS).



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Tribe: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation **Amount Funded:** \$55,082
Title: *Shoshone-Paiute Fire Department's Adaptation Planning and Training Program*

Project Description: This funding will enable the assessment of the Tribes infrastructure, training, training needs, agricultural, and disaster preparedness. The Tribe will consult with the public, elders and the membership and integrate all of this information into an Adaptation Plan. The project will provide a basis for its response to changing environmental trends and extreme events and will guide monitoring, public outreach, and education as well as provide a mechanism for the updating and amending of the plan based on new information.

Tribe: Skokomish Indian Tribe **Amount Funded:** \$149,558
Title: *Skokomish Indian Tribe-Adaption planning-Data Development for marine algal toxins in Hood Canal, Washington*

Project Description: This funding will measure marine algal toxin levels during the summer months and inform the tribal council and members of toxin levels if they rise above a critical level set by NOAA. Analytics will be applied to quantify algal toxins in water and biological samples at 11 sites in Hood Canal. Phytoplankton species that are known to produce algal toxins in Hood Canal will be identified. Public health risks associated with measured algal toxin levels will be established. An early algal toxin alert system will be developed and implemented.

Tribe: Snoqualmie Indian Tribe **Amount Funded:** \$149,256
Title: *Assess impacts of climate change on coldwater habitat, and implications for native salmonid populations of the Snoqualmie River to support Snoqualmie Tribal resilience and coastal management planning*

Project Description: This funding will be used to evaluate effects of land management and climate scenarios on fluvial and thermal conditions and on coldwater fish populations in the Snoqualmie basin. The Tribe will develop management scenarios of riparian vegetation and land use, test these management scenarios using an existing physically-based hydrology and water temperature model and compare how well each mitigates predicted future changes to salmon habitats; evaluate population-level salmon responses to these scenarios using an existing individual-based fish model; and develop a guidance protocol for natural resource managers in other Tribes who need to protect/restore salmon and their habitats. The Tribe will produce and publish maps and animations of changes in fluvial and thermal habitat.

Tribe: Stillaguamish Tribe **Amount Funded:** \$130,558
Title: *Stillaguamish Tribal Resilience Planning for Future Generations - Continuing the Work*

Project Description: Funding for this project provides a platform to develop data management and analysis tools and guidelines to support long-term monitoring related to resiliency and adaptation and to increase capacity for tribes in the region. It will build on an effort to assess current and future data usage needs with specific attention to continuous data and traditional ecological knowledge (TEK) at a regional scale. The data management tools developed will improve resolution of climate change effects and may provide valuable information about "tipping points" or "triggers" that may indicate the need to take a particular adaptive step in management. Tribal staff will receive training in the use of tools associated with the outcomes of the strategy.



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Tribe: Suquamish Tribe **Amount Funded:** \$148,998

Title: *Building resilience for the Suquamish Tribe: Integrating changes in streamflow and water temperatures into a vulnerability assessment for salmonids in the Chico Creek Watershed*

Project Description: This funding will produce a detailed impact assessment of projected future changes in the hydrology and water temperature in the Chico Creek watershed to understand the long-term implications for salmon habitat and populations. The assessment will identify cold-water refugia and thermal sources and develop a high-resolution hydrological and water temperature model, which will allow the Suquamish Tribe to quantify changes in streamflow and water temperature in the future. A thermal infrared remote sensing survey will produce spatially continuous water temperature data, and the hydrologic and water temperature model will simulate hourly, daily, monthly and annual streamflow, summer water temperature, and high- and low-flow extremes.

Tribe: The Navajo Nation **Amount Funded:** \$150,000*

Title: *Integrated watershed risk assessment for wildfire, floods, and debris flows on the Navajo Nation*

Project Description: This funded project will conduct an integrated watershed risk assessment to evaluate and map the probability and potential impacts of extreme fire-flood-debris-flow events in watersheds of the Navajo Nation using computer simulation models and the experience of resource managers. *Project partnering with University of Arizona.

Tribe: Tulalip Tribes of Washington **Amount Funded:** \$146,023*

Title: *Tulalip Tribes off-reservation Treaty Reserved Resource management capacity planning in light of extreme events and harmful environmental trends*

Project Description: This funding will build resilience through the delivery of data and tools and tribal capacity to manage treaty resources. It will provide an analysis of vegetation to predict changes over the next approximately 80 years and strategies will be developed for management of treaty resources such as fish, wildlife and plants. It will also fund development of an area specific framework for using the Ecosystem Management Decision Support system to relate key vegetation types and species to Tulalip treaty resources as a tool for objective management decisions. GIS layers produced from this project will be shared with participating tribes. *Project partnering with USGS.

Tribe: Upper Skagit Indian Tribe **Amount Funded:** \$150,000

Title: *Upper Skagit Indian Tribe: Tribal Resilience Planning*

Project Description: This funding will address capacity development for gaps, to identify and scope needed improvements, and to develop the Tribal Resilience Plan. The final deliverable of this project will be a document identifying roles, responsibilities and procedures to be followed in emergencies, addressing a variety of possible emergency scenarios and covering multiple Tribal programs, in order to maintain the health and welfare of the Tribe.

Tribe: Ute Mountain Ute Tribe **Amount Funded:** \$106,933*

Title: *Ute Mountain Tribe Adaptation Planning*

Project Description: This funding will go to the development of an adaptation plan that will be integrated across all the tribal programs. It will build on the Tribe's vulnerability assessment. The funding will also be used to host workshops, identify and prioritize adaptation options, create an adaptation plan, and share the work with community



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members. This initiative will build tribal capacity through inter-departmental work and respect the importance of traditional ecological knowledge and science. *Project partnering with Colorado State University.

Tribe: Village of Atmautluak **Amount Funded:** \$62,842
Title: *Native Village of Atmautluak Adaptation Assessment Planning Project*

Project Description: This funding will develop an Adaptation Assessment which will identify important components of our community and determine the risk of harm. The funding will hire a part-time Project Coordinator to take the lead and form a planning team that meets regularly and works through the steps outlined in U.S. Climate Resilience Toolkit, seeks technical assistance as needed and implements the completed assessment plan.

Tribe: Washoe Tribe of Nevada and California **Amount Funded:** \$150,000
Title: *Washoe Tribe Environmental Support for Adaptation Planning*

Project Description: This funding will support a Tribal Resilience Adaptation Planning workshop to build the skills and knowledge of tribal staff, staff capacity, and capacity of surrounding Tribes. The goal is to provide an off-site training and collaboration opportunity for the Tribal Advisory Group (TAG) by working closely with the current resilience project partner (Adaptation International) to design and organize a 3 day off site technical resilience workshop. This event would provide the space for the departmental leadership who have been actively involved in the resilience work to leave their daily office commitments behind and dedicate time to developing effective adaptation and resilience actions.

Tribe: Zuni Cultural Resource Enterprise, Inc. **Amount Funded:** \$137,434
Title: *Pueblo of Zuni Workshop and Adaptation Planning for Challenges Presented by Extreme Events and Harmful Environmental Trends - Component II*

Project Description: This funding will provide a culturally appropriate and scientifically sound pathway to developing adaptation and resilience through delivery of data and tools and tribal capacity building. The project will be a collaboration between Western scientists and Zuni traditional knowledge (TK) holders and practitioners, and will be interrelated to effectively address the long-term concerns and needs of the Zuni Tribe in confronting the challenges presented by extreme events and harmful environmental trends.

Tribal Organization: Bristol Bay Native Association, Inc. **Amount Funded:** \$ 147,838
Title: *Alaska's Eroding Infrastructure: Systematic Approach to Identifying and Prioritizing Coastal Infrastructure at Risk to Erosion*

Project Description: Funding for this project will build the capacity of local tribal governments to collect, analyze, and interpret shoreline change data allowing them to effectively conduct data-driven vulnerability assessments and prioritize adaptation and mitigation strategies.

Tribal Organization: Columbia River Inter-Tribal Fish Commission **Amount Funded:** \$147,544
Title: *Columbia River Inter-Tribal Fish Commission's "Resilient Aquatic Foodwebs for Tribal Communities (RAFT)" (Adaptation Planning - Dataset Development)*



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Project Description: Funding for this project will increase tribal capacity to mitigate climate change impacts to aquatic food webs by identifying field collection efforts of aquatic macroinvertebrates in salmon-bearing tributaries of the Columbia River basin; coordinating field and laboratory procedures among tribal programs so that data can be evaluated using common standards and analytical procedures; using collected data to refine and extend existing food availability and food web metrics; and providing a statistical analysis framework relating food web metrics to climate-related variables as the basis for prioritizing climate change mitigation strategies.

Tribal Organization: Northwest Indian Fisheries Commission **Amount Funded:** \$150,000*

Title: *Coastal Flooding and Extreme Storm Adaptation Planning for the Treaty Tribes of the Northwest Indian Fisheries Commission*

Project Description: This funding will support the treaty tribes in western Washington in identifying and responding to the impacts of coastal floods, extreme storms, and sea level rise to treaty-protected natural resources and local ecosystems. This project will also enhance the capacity and productivity of intertribal collaboration for regional planning. The project will deliver a compendium of the tribal approaches to sea level rise, extreme storms, and coastal erosion as identified in existing vulnerability assessments and adaptation plans; a coastal flooding and storm surge adaptation planning meeting; a data development pilot project memo that describes methods and results, including maps; an information sharing workshop; and a regional intertribal coastal flooding and storm surge adaptation plan.

*Project partnering with USGS.

Tribal Organization: United South and Eastern Tribes, Inc. **Amount Funded:** \$79,349

Title: *United South and Eastern Tribes Adaptation Planning Support Project*

Project Description: This funding will assist Tribal Nations in the completion of their Adaptation Plans. The project will support Tribal professional staff in the completion of their Tribal Nation's adaptation plans, and will include Tribal youth in adaptation planning through work force development opportunities. USET will travel to Tribal Nations to provide onsite technical support for adaptation planning and will support Tribal workforce development by supporting Tribal youth, engaged in community-level adaptation planning, to participate and present at USET's Annual Impact Week in Washington, DC for spring 2019.

Tribal Organization: Yukon River Inter-Tribal Watershed Council **Amount Funded:** \$150,000

Title: *Yukon River Inter-Tribal Watershed Council Adaptation Planning Project: Enhancing Tribal Resilience Through Community-Based Monitoring and Planning*

Project Description: This funding will be used to document Traditional Knowledge (TK) about resilience, including environmental threats. It will establish new permafrost monitoring sites, and establish an erosion monitoring protocol. Subsistence areas, landscape values and threats will also be mapped. New data on water quality, permafrost degradation, and erosion will be collected. The Indigenous Observation Network will be expanded by installing four new grid active layer sites to monitor permafrost, and one regional stationary monitoring site for weather, and by the addition of erosion monitoring using either drone aerial photography or staking. Training will be provided to local Tribal Environmental Professionals to maintain and collect data from these sites. The project will synthesize existing data regarding environmental change and impacts, and compare them to rural community perceptions of environmental risks and vulnerability to traditional ways of life.



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Category 3 : Travel Support for Adaptation Planning

Travel Support for Climate Adaptation Plans, Vulnerability Assessments, Data Development and Analysis

Number of Awards: 30

Amount Funded: \$408,628

Project Description for All Category 3 Awards: Funding to provide travel support and access for tribal leaders, tribal members, and tribal staff to attend workshops, trainings, or meetings associated with building adaptation knowledge and skills for resilience against the impacts of extreme events and harmful environmental trends that impact treaty and trust resources, economies, infrastructure, human health and tribal welfare. This may include training and technical workshops to ensure tribal voices are included and other practitioners benefit from tribal participation in training, research, and cooperative implementation. This does not include salary costs or international travel.

Tribe: Blackfeet Tribe	Amount Funded: \$10,500
Title: <i>Blackfeet Nation Travel Support for Adaptation Planning</i>	
Tribe: Burns Paiute Tribe	Amount Funded: \$14,961
Title: <i>Travel Support for Adaptation Planning for Burns Paiute Tribe</i>	
Tribe: Chignik Bay Tribal Council	Amount Funded: \$15,000
Title: <i>The Chignik Bay Tribal Council Adaptation and Resiliency Travel Support</i>	
Tribe: Chignik Lake Tribal Council	Amount Funded: \$15,000
Title: <i>The Chignik Lake Tribal Council Adaptation and Resiliency Travel Support</i>	
Tribe: Chuathbaluk Traditional Council	Amount Funded: \$12,848
Title: <i>Native Village of Chuathbaluk Travel Support Western Alaska LCC</i>	
Tribe: Confederated Tribes of Grand Ronde Community	Amount Funded: \$14,925
Title: <i>Confederated Tribes of Grand Ronde - Adaptation Planning Travel Support</i>	
Tribe: Confederated Tribes of the Umatilla Reservation	Amount Funded: \$15,000
Title: <i>CTUIR Travel Support for Adaptation Planning</i>	
Tribe: Elk Valley Rancheria CA	Amount Funded: \$10,905
Title: <i>Elk Valley Rancheria Travel Support-Adaption Planning</i>	
Tribe: Georgetown Tribal Council	Amount Funded: \$15,000
Title: <i>Native Village of Georgetown's Middle Kuskokwim Adaptation Plan Travel</i>	
Tribe: Igiugig Village Council	Amount Funded: \$9,178
Title: <i>Igiugig Village Adaptation Travel Support</i>	
Tribe: Iliamna Village Council	Amount Funded: \$12,624
Title: <i>Village of Iliamna Adaptation Assessment Travel Support</i>	
Tribe: Ketchikan Indian Community	Amount Funded: \$14,843
Title: <i>Ketchikan Indian Community Traditional Knowledge and Citizen Science Initiative</i>	



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Tribe:	Keweenaw Bay Indian Community	Amount Funded:	\$6,130
Title:	<i>Training in Adaptation Planning for Air Quality Issues Affecting the Health of the Keweenaw Bay Indian Community of the Lake Superior Region</i>		
Tribe:	Native Village of Kotlik	Amount Funded:	\$14,248
Title:	<i>Native Village of Kotlik Travel Support</i>		
Tribe:	Nez Perce Tribe	Amount Funded:	\$12,703
Title:	<i>Nez Perce Tribe Travel Support for Adaptation Planning</i>		
Tribe:	Nooksack Indian Tribe	Amount Funded:	\$14,900
Title:	<i>Travel Support - Nooksack Indian Tribe Travel to Relevant Adaptation/Resilience Training Workshops, Meetings, and Symposiums</i>		
Tribe:	Pueblo of Laguna	Amount Funded:	\$15,000
Title:	<i>Pueblo of Laguna Travel Support for Adaptation Planning</i>		
Tribe:	Quapaw Tribe of Oklahoma	Amount Funded:	\$14,505
Title:	<i>Quapaw Tribe Flood Hazard Adaptation Planning Project</i>		
Tribe:	Quinault Indian Nation	Amount Funded:	\$14,682
Title:	<i>Quinault - Travel to Increase Knowledge of Ecosystem Resilience</i>		
Tribe:	Sac and Fox Nation of Missouri	Amount Funded:	\$14,804
Title:	<i>Sac and Fox Nation of Missouri Travel Support for Adaptation Planning</i>		
Tribe:	Skokomish Indian Tribe	Amount Funded:	\$15,000
Title:	<i>Skokomish Indian Tribe - Support for Travel and Training for Adaptation and Resilience Planning</i>		
Tribe:	Village of Atmautluak	Amount Funded:	\$11,048
Title:	<i>Native Village of Atmautluak / Adapt Y-K Delta Travel Support</i>		
Tribe:	Walker River Paiute Tribe	Amount Funded:	\$10,000
Title:	<i>Travel Support for Walker River Paiute Tribe</i>		
Tribe:	Washoe Tribe of NV & CA	Amount Funded:	\$15,000
Title:	<i>Washoe Tribe Environmental Travel Support for Adaptation Planning</i>		
Tribe:	Wichita and Affiliated Tribes	Amount Funded:	\$14,908
Title:	<i>Wichita Travel Support Proposal</i>		
Tribal Organization:	Affiliated Tribes of Northwest Indians	Amount Funded:	\$14,916
Title:	<i>ATNI NW Regional Climate Resilience Project</i>		
Tribal Organization:	Chugach Regional Resources Commission	Amount Funded:	\$15,000
Title:	<i>Travel Support - Resilience</i>		



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Tribal Organization: Native American Fish and Wildlife Society- SW Region **Amount Funded:** \$15,000
Title: *Travel Support for Adaptation Planning for the Native American Fish & Wildlife Society - Southwest Region*

Tribal Organization: The Learning Center at Euchee Butterfly Farm **Amount Funded:** \$15,000
Title: *Tribal Alliance for Pollinators: Travel Support for Building Tribal Capacity for Native Plant Restoration to Prevent Top Soil Erosion and Preserve Culturally Significant Plants During Drought*

Tribal Organization: Yukon River Inter-Tribal Watershed Council **Amount Funded:** \$15,000
Title: *Yukon River Inter-Tribal Watershed Council Adaptation Planning Project: Resilience Workshop Travel Support*

Category 4 : Ocean and Coastal Management

To Develop Ocean and Coastal Management Plans for Marine and Coastal Resources

Number of Awards: 31

Amount Funded: \$4,084,232

Tribe: Chilkoot Indian Association **Amount Funded:** \$97,153
Title: *Identify Environmental Vulnerabilities and Prioritize Adaptation Strategies for Saak (Eulachon) Populations in the Upper Lynn Canal of Southeast Alaska*

Project Description: Funding for this project will complete a vulnerability assessment and adaptation plan, and advance the Tribes scientific understanding about local biology that impacts the traditional Chilkoot water reliant lifestyle and applies the economically sustainable method (eDNA) for collecting and monitoring eulachon population data. The project will include training and data collection for local and regional tribes. Academic and federal scientists, as well as tribal members will be interviewed to compare traditional and modern methods of monitoring.

Tribe: Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians **Amount Funded:** \$148,621
Title: *Laboratory and Analytical Capacity Building for Identification of Hazardous Pollutants Facilitating Impacted Resource Inventory, Vulnerability Assessments, and Collaborative Ocean and Coastal Tribe Resource Management*

Project Description: This funding will help protect culturally significant resources from pollution for both environmental sustainability and community health. The Tribe's Department of Culture and Natural Resources' Water Quality Program and Resource Response Program wishes to build on current water quality testing and training capabilities to analyze for hazardous pollutants in water, sediment, vegetation, and fish tissues using state-of-the-art scientific techniques in both chemistry and instrument analytics.

Tribe: Confederated Tribes of Siletz Indians **Amount Funded:** \$150,000
Title: *Marine Spatial Plan Development for the Confederated Tribes of Siletz Indians*

Project Description: This funding will in part be used to gather TEK as well as current cultural resource knowledge (knowledge from those with less TEK experience but who are active harvesters/gatherers) to better define cultural resources and resource areas of importance to the Tribe. These cultural resource data will be placed in a relational database that allows for recognition between various metrics and items in the database – which aids in understanding



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connections between TEK focused information. The information will be used to develop a marine spatial plan for the Tribe. The plan will also enhance the Tribe's current involvement in the West Coast Regional Planning Body, the Oregon Rocky Shores Working Group.

Tribe: Hoonah Indian Association **Amount Funded:** \$141,430
Title: *Inventorizing and Mapping Traditional Coastal Resources in Nearshore Subtidal Ecosystems for Tribal Resilience*

Project Description: This funding will provide for the habitat classification mapping and baseline resource inventory of subtidal macro-habitats to assess potential marine subsistence resource-use areas near Hoonah, AK. This information will enable the tribe and community members to understand the vulnerability of traditional marine resource gathering areas and will lend itself to future ocean and coastal management & planning efforts. The project will work through a community-based adaptive management process to engage stakeholders and integrate community knowledge & values, perform a baseline resource inventory, implement community education and outreach, and publish written synthesis and analysis reports that communicate the resilience and vulnerability of traditional subsistence resources.

Tribe: Jamestown S'Klallam Tribe **Amount Funded:** \$54,905
Title: *Jamestown S'Klallam Tribal Planning for Resilience to Harmful Environmental Trends*

Project Description: This funding will improve resilience to extreme changes in the environment and harmful environmental threats by better understanding patterns of variability and trends in marine chemistry that cause ocean acidification in Sequim Bay, WA. This project will place OA sensor packages in Sequim Bay, WA near tribal shellfish aquaculture and shellfish harvest beaches to collect continuous (pH, temperature, salinity, dissolved oxygen and chlorophyll) and discrete (alkalinity) marine chemistry measurements to identify natural variability, investigate long-term trends, and assess future vulnerability to OA.

Tribe: Keweenaw Bay Indian Community **Amount Funded:** \$15,782*
Title: *Keweenaw Bay - Sand Point Sediment Transport and Deposition Assessment: A Long-term Coastal Dynamics Collaborative for Tribal Resiliency Planning*

Project Description: This funding support efforts to address information gaps in the extent of contaminated sands and their impact on aquatic resources of Keweenaw Bay to better understand this dynamic coastal system and plan for future extreme events. Specifically, the project objectives for this proposal are to: 1) enhance knowledge of past, current, and future extent and impacts of stamp sands through historical documentation of Mass Mill operations and ore sources, and supported by the interpretation and analysis of historical cartographic products, aerial photography, orthoimagery, and LiDAR derived topographic models, and 2) increase baseline information about the physical migration, quantity, and chemical characteristics of stamp sands deposited into Keweenaw Bay and L'Anse Bays of Lake Superior. *Project partnering with Michigan Technical University.

Tribe: Knik Tribe **Amount Funded:** \$145,228
Title: *Vulnerability Assessment: Prevalence of Paralytic Shellfish Toxins in the Marine Food Webs of the Cook Inlet and the Alaska Peninsula, Alaska*



Bureau of Indian Affairs Tribal Resilience Program's 2017 / 2018 Resilience Funding Awards Summary

Project Description: This funding supports a vulnerability assessment for a single resource or risk with a product that serves multiple tribes and public health agencies that can be used by multiple coastal Tribes in Alaska. The current study will investigate the transfer of paralytic shellfish toxins (PSTs) from Alexandrium cells to zooplankton, shellfish, forage fish and commercially important predatory fishes in two Alaska ecosystems: Cook Inlet and the south Alaska Peninsula.

Tribe: Makah Indian Tribe	Amount Funded: \$149,622
Title: <i>Monitoring, Management, and Planning of the Makah Tribe's Coastal and Ocean Resources</i>	

Project Description: This funding supports the Makah Tribe's GIS Department to incorporate marine spatial planning data into useable digital GIS layers and georeferenced map products. This work will contribute to 1) restoring and increasing resilience of coastal estuaries and nearshore waters of the Makah Reservation by trapping and removing invasive European green crab; 2) monitoring critical indicator species in the intertidal, nearshore, and ocean waters of the Makah Reservation and Makah U&A; and 3) incorporating ecological data into GIS shapefiles and map products that can be incorporated into the Makah Tribe's Marine Spatial Plan and Oil Spill Response Plan.

Tribe: Native village of Karluk	Amount Funded: \$66,540
Title: <i>Native Village of Karluk Coastal Adaptation Assessment Grant</i>	

Project Description: This funding will develop an Adaptation Assessment that will identify important components of the community and determine the risk of harm. The project will hire a part-time Project Coordinator to take the lead, form a planning team that meets regularly and work through the steps outlined in U.S. Climate Resilience Toolkit, seeks technical assistance as needed and implements the completed assessment plan.

Tribe: Native Village of Kotlik	Amount Funded: \$83,875
Title: <i>Native Village of Kotlik Coastal Adaptation Assessment Grant</i>	

Project Description: This funding will develop an Adaptation Assessment which will identify important components of the community and determine the risk of harm. It will hire a part-time Project Coordinator to take the lead and form a planning team that meets regularly and works through the steps outlined in U.S. Climate Resilience Toolkit, seeks technical assistance as needed and implements the completed assessment plan.

Tribe: Native Village of Kwigillingok	Amount Funded: \$102,843
Title: <i>Native Village of Kwigillingok Assessment Planning</i>	

Project Description: This funding will develop an Adaptation Assessment which will identify important components within the community and determine the risk from flooding, ice jams and eroding river banks. Funds will be used to hire a full-time Project Coordinator to take the lead, form a planning team that meets regularly and work through the steps outlined in U.S. Climate Resilience Toolkit, seeking technical assistance as needed and implements the completed assessment plan.

Tribe: Native Village of Kwinhagak	Amount Funded: \$146,243
Title: <i>Native Village of Kwinhagak Lagoon Assessment Project</i>	



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Project Description: This funding supports the development of an assessment that will identify important community components and determine risk. The project will address extreme events and harmful environmental trends that impact our resources, economy, infrastructure, health and welfare. The project is an Adaptation Assessment for Tununak that hires a part-time Project Coordinator, forms a planning team and works through the steps outlined in U.S. Climate Resilience Toolkit.

Tribe: Native Village of Tununak **Amount Funded:** \$ 85,195
Title: *Native Village of Tununak Coastal Adaptation Assessment Grant*

Project Description: This funding supports the development of an assessment that will identify important community components and determine risk. The project will address extreme events and harmful environmental trends that impact our resources, economy, infrastructure, health and welfare. The project is an Adaptation Assessment for Tununak that hires a part-time Project Coordinator, forms a planning team and works through the steps outlined in U.S. Climate Resilience Toolkit.

Tribe: Native Village of Unalakleet **Amount Funded:** \$133,166
Title: *Native Village of Unalakleet's Feasibility Study to Assess the Establishment of a Regional Norton Sound LiDAR Data Collection Project as a Self-Sustaining Program (Planning for Subsistence Management in Changing Conditions)*

Project Description: This funding will help build local and regional capacity to address future ocean and coastal management planning and long-term resilience through the establishment of a self-sustaining, rigorous, localized and on-going data collection and analysis program. It will research and assess the feasibility of establishing a regional Norton Sound LiDAR data collection program utilizing an aerial drone. The study will include a cost/benefit analysis of a LiDAR system to other aerial data collection and observation options.

Tribe: Point No Point Treaty Council **Amount Funded:** \$150,000
Title: *Point No Point Treaty Council (PNPTC) Estuary GIS Change Analysis and Pilot Vulnerability Assessments for Adaptation Planning*

Project Description: This funding will support a pilot study to map historical stream distributary changes within select estuaries and estimate suspended sediment movement with relation to extreme weather events. This study will serve as a proof of concept which can later be applied to additional critical estuaries where there is concern over habitat changes. It will establish a methodology to map, measure, and analyze approximate sedimentation and sediment movement within estuary habitats to better inform tribal resource managers and planners. Results will be used to produce and update existing fish and shellfish habitat vulnerability assessments.

Tribe: Quileute Indian Tribe **Amount Funded:** \$150,000
Title: *Category 4: Identifying monitoring protocols and critical indicator species/environmental parameters needed to develop marine resource plans needed to support planning efforts to address resilience for the Quileute Tribe*

Project Description: This funding will build capacity through activities such as identify monitoring protocols and critical indicators to advance tribal resilience with improved management tools to manage ocean resources sustainably and



Bureau of Indian Affairs Tribal Resilience Program's 2017 / 2018 Resilience Funding Awards Summary

by default create resilience. This project will shift how we inform management of our marine resources resulting from changing ocean conditions such as hypoxia and ocean acidification. This project will pursue partnerships, develop and access regionally specific data and information to inform our management strategies.

Tribe: Quinault Indian Nation **Amount Funded:** \$110,833

Title: *Quinault - Shorebird and Waterfowl Planning*

Project Description: Funding for this project will document waterfowl occurrence across a variety of habitats, to determine species richness, distribution, abundance, and habitat use across different seasons. It will ensure a robust and statistically significant baseline data set. Funds will be used to conduct an aerial mid-winter waterfowl, seabird, and marine mammal survey of the entire outer Washington coast. The data collected from this survey will be shared with the US Fish and Wildlife Services Migratory Bird Data Center, which is used to set hunting bag limits, hunting seasons and restrictions, as well as guide management and conservation decisions. Funds will be used to train a select group of tribal members on bird identification and standardized surveying techniques.

Tribe: Samish Indian Nation **Amount Funded:** \$150,000

Title: *Samish Indian Nation - Coastal Vulnerability and Risk Assessment*

Project Description: Funding for this project will expand on the work of the Samish Adaptation and Resilience Initiative with a focus on coastal resources. It will develop an in-depth coastal resource vulnerability and risk assessment, and create a Geographic Information Systems (GIS) based Sea Level Rise and Cultural Resource Evaluation Tool that can be used by other Tribes. The increased understanding of impacts to coastal resources will improve the Samish Indian Nation's capacity to engage with Local, State, Federal, and Tribal entities on coastal regulatory and resource management initiatives in the region.

Tribe: Seminole Tribe of Florida **Amount Funded:** \$150,000

Title: *Seminole Tribe of Florida Adaptation Planning - by ERMD*

Project Description: This funding will help give Tribal Government and salient Tribal Departments adequate information to examine their plans for preparedness and reallocate resources as necessary to protect the property, resources and health of its members. Deliverables include climate projections and scenarios, technical report on climate and high resolution hydrodynamic modeling, technical report on critical assets and resources, and a vulnerability assessment report.

Tribe: Shoalwater Bay Indian Tribe **Amount Funded:** \$142,342

Title: *Shoalwater Bay Indian Tribe Adaptation Plan*

Project Description: This funding develops an adaptation plan for tribal lands, adaptation planning related training including travel, and an automated weather station to monitor and record weather data on the reservation. The adaptation plan will address the potential impacts of environmental and natural resource changes on human health, culture, traditions, economy, ecosystems, species, habitat, the coastline, bay and ocean, water resources, agriculture, forests, and infrastructure and the built environment.



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Tribe: Sitka Tribe of Alaska **Amount Funded:** \$150,000

Title: *Ocean and Coastal Management Planning by Assessing Mercury in Subsistence Marine Resources Using the Sitka Tribe of Alaska's Environmental Research Laboratory and the Southeast Alaska Tribal Ocean Research Partnership*

Project Description: Funding for this project will support tribal resilience and adaptation ability by building capacity to analyze subsistence marine foods. The project will integrate established protocols and techniques that will be used to analyze collected samples and to communicate the results via the existing outreach website. This project will focus on tissue samples collected from traditional foods are known to be higher than other harvested species. This project will provide prompt data to communities on mercury levels from recent harvests. We will utilize our existing infrastructure and model used to provide real-time shellfish toxin data to 16 tribal communities in Southeast Alaska to effectively coordinate sample collection and to communicate risk levels to tribal citizens.

Tribe: Skokomish Indian Tribe **Amount Funded:** \$147,799

Title: *Skokomish Indian Tribe-Development of an Ocean and Coastal Management Plan to deal with an emergin environmental and natural resources concern, the coccolithophore blooms, in Hood Canal, Washington*

Project Description: This funding supports the development and implementation of scientific strategies to deal with the coccolithophore blooms in Hood Canal. This objectives will contribute to the development of an ocean and coastal management plan to cope with the environmental challenges caused by coccolithophore blooms in Hood Canal, WA.

Tribe: Squaxin Island Tribe **Amount Funded:** \$150,000

Title: *Squaxin Island Tribes Sea Level Rise Response Plan*

Project Description: Funding for this project will develop a Sea Level Rise Response Plan for shellfish and forage fish habitat to climate change-related impacts on Squaxin Island and Oakland Bay. It will use forecasts and modeling to protect and direct economic investments, opportunities, and revenues; develop and implement adaptation and management actions to reduce impact to the area and protect the vital shellfish/forage fish resource; identify where and how the Tribe could support the natural inland transition of coastal lowlands and estuaries; protect important historical and cultural sites that are at risk of coastal inundation and flooding. Recommended actions will be distributed to local, state, and federal agencies.

Tribe: Tolowa Dee-ni' Nation **Amount Funded:** \$149,873

Title: *Na'ghvth-k'vs (Rising Tides): Using 3D Modeling of Intertidal Areas to Track Sea Level Rise Due to Climate Change*

Project Description: This funding will support documentation of ecological trends and ultimately enable better management for resiliency. The Tribe will work with partners to utilize low-cost and easily transferable methods to create data-rich large-area image archives of intertidal areas from the lowest water line to beyond the splash zone. The ultimate goals of this project are to collect rigorous high-resolution large-area imagery of important rocky intertidal habitats that will enable planning for future changes associated with sea level rise.



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Tribe: Tulalip Tribes of Washington **Amount Funded:** \$150,000

Title: *Tulalip Tribes Shoreline Resiliency Planning*

Project Description: This funding will support coastal storm modeling along Tulalip's coastlines, explore future trends in habitat change, and continue bacterial water monitoring in Tulalip tidelands to support safe shellfish harvest on the Reservation for tribal members. The Tribe will work with partners to implement a modeling system across Tulalip shorelines and explore habitat change to project future trends along the coastline. The tribe will also sample for bacteria in tidelands.

Tribe: Yakutat Tlingit Tribe **Amount Funded:** \$149,314

Title: *Yakutat Tlingit Tribe's Yakutat Baseline Coastal Studies*

Project Description: This funding will build capacity to develop a coastal management plan by informing the Tribe about potential development impacts which could exacerbate rapid landscape changes. This is a pilot project for data collection that will set the groundwork for future monitoring. Water quality data and traditional ecological knowledge (TEK) will be collected as baseline data and erosion will be documented through drone mapping, and measured stream flows and fluctuations. Tribal capacity will also be built through Environmental Sampler training; stream flow measurement training; and drone operation training.

Tribe: Yurok Tribe **Amount Funded:** \$121,675

Title: *Yurok Tribe Coastal Resource Management Planning in McGarvey Creek, California*

Project Description: This funding will assess the effectiveness of coastal resiliency strategies within the Lower Klamath River watershed, use information gained to refine and further develop coastal resiliency strategies and tools to improve the Tribe's ability to restore healthy anadromous fish stocks, and transfer knowledge gained to other Klamath Basin tribes and various stakeholders. The project will also assess the performance of the following innovative practices: installation of beaver dam analogues, off-channel wetland construction, and fish rescue and relocation.

Tribal Organization: Kodiak Area Native Association **Amount Funded:** \$150,000

Title: *Collective Monitoring of Harmful Algal Blooms and Paralytic Shellfish Poisoning on Kodiak Archipelago: Advancing Tribal Resilience and Subsistence Food Security*

Project Description: This funding will support the establishment of four long-term sites on the Kodiak Island Road System where Harmful Algal Bloom (HABs) species will be continuously monitored. Of particular concern is the toxin responsible for Paralytic Shellfish Poisoning (PSP). Project data will be used to create public advisories for shellfish harvesting at sampled locations, in cooperation with other local authorities. The Kodiak Area Native Association and partners will start compiling environmental datasets to statistically examine toxicity levels and presence of HABs, their link to environmental measures of change, and strategic ways that Tribes can adapt to the trends of harmful blooms and toxic shellfish.

Tribal Organization: Northwest Indian Fisheries Commission **Amount Funded:** \$144,325

Title: *Building Marine Resource Management Resilience among the Member Tribes of the Northwest Indian Fisheries Commission*



Bureau of Indian Affairs Tribal Resilience Program's 2017 / 2018 Resilience Funding Awards Summary

Project Description: This funding will support the development of Scenario Plans with Northwest Indian Fisheries Commission member tribes, the production of Marine Condition Bulletins, and the increase of ocean acidification Monitoring Capacity.

Tribal Organization: Norton Bay Inter-Tribal Watershed Council **Amount Funded:** \$149,980
Title: *Norton Bay Inter-Tribal Watershed Council, Norton Bay Watershed Ocean and Coastal Management Plan*

Project Description: This funding supports increasing coastal resilience for the Native Villages and marine habitat of the Norton Bay Watershed by developing strategies that address the Watershed's greatest coastal ecosystem risks. The Council's (NBITWC's) primary objectives are to: 1) Engage Norton Sound Native Villages in a participatory process for ocean and coastal management planning; 2) Apply the North American Marine Protected Area Rapid Vulnerability Assessment Tool (MPARVAT); and 3) Draft a Norton Bay Watershed Ocean and Coastal Management Plan (NBWOCMP) and identify opportunities for implementation in Norton Bay.

Tribal Organization: Skagit River System Cooperative **Amount Funded:** \$128,242
Title: *Salmon Habitat Vulnerability Assessment for the Swinomish and Sauk-Suiattle Tribes*

Project Description: This funding supports an assessment of Skagit Delta tidal marsh vulnerability to erosion, vegetation mortality, and loss of fish access to tidal channel habitat as a result of increased water temperature. This proposed projects scientific results and management recommendations will be incorporated into the Skagit Chinook Recovery Plan.

Category 5 : Travel Support for Ocean and Coastal Management

Travel Support for Ocean and Coastal Management Plans for Marine and Coastal Resources

Number of Awards: 13 **Amount Funded:** \$126,117

Project Description for All Category 5 Awards: These funds will support direct travel costs for tribal leaders or staff participation in, coordination, or training for interagency ocean and coastal management and planning, including meetings of Regional Planning Bodies.

Tribal Organization: Confederated Tribes of Grand Ronde **Amount Funded:** \$7,715
Title: *Confederated Tribes of Grand Ronde - Ocean and Coastal Travel Support*

Tribal Organization: Confederated Tribes of Siletz Indians **Amount Funded:** \$3,385
Title: *Travel Support for Marine Spatial Plan Development for the Confederated Tribes of Siletz Indians*

Tribal Organization: Craig Tribal Association **Amount Funded:** \$5,387
Title: *Travel Support for Craig Tribal Assoc.*

Tribal Organization: Klawock Cooperative Association **Amount Funded:** \$4,915
Title: *Travel Support for Klawock to attend an Ocean and Coastal Management Planning Workshop*

Tribal Organization: Native Village of Kwigillingok **Amount Funded:** \$11,048
Title: *Native Village of Kwigillingok Travel Support*



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Tribe:	Native Village of Kwinhagak	Amount Funded:	\$13,488
Title:	<i>Native Village of Kwinhagak Travel Support</i>		
Tribe:	Native Village of Tununak	Amount Funded:	\$11,048
Title:	<i>Native Village of Tununak Travel Support</i>		
Tribe:	Petersburg Indian Association	Amount Funded:	\$4,854
Title:	<i>Travel Support for Petersburg Indian Association to attend an Ocean and Coastal Management Planning Workshop</i>		
Tribe:	Quinault Indian Nation	Amount Funded:	\$14,652
Title:	<i>Quinault Participation in West Coast Ocean Planning</i>		
Tribe:	Skagway Traditional Council	Amount Funded:	\$5,528
Title:	<i>Travel Support for Skagway Traditional Council Ocean and Coastal Travel</i>		
Tribe:	Squaxin Island Tribe	Amount Funded:	\$14,110
Title:	<i>Squaxin Island Tribes Sea Level Rise Response Plan</i>		
Tribal Organization:	Chugach Regional Resources Commision	Amount Funded:	\$14,987
Title:	<i>Alutiiq Pride Shellfish HatcheryTravel Support - Ocean & Coastal</i>		
Tribal Organization:	Norton Bay Inter-Tribal Watershed Council	Amount Funded:	\$15,000
Title:	<i>Travel Support for Development of Norton Bay Inter-Tribal Watershed Council, Norton Bay Watershed Ocean and Coastal Management Plan</i>		

Category 6 : Capacity Building

To support tribes with limited technical and staffing capacity to carry out risk scoping activities that can lead to more detailed future adaptation planning proposals

Number of Awards: 3

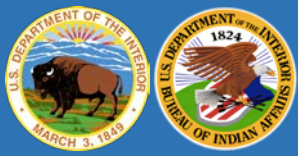
Amount Funded: \$144,202

Tribe:	Bear River Band of the Rohnerville Rancheria	Amount Funded:	\$ 44,424
Title:	<i>Bear River Band of the Rohnerville Rancheria, Capacity Building through develop a Drought Contingency Plan</i>		

Project Description: These funds will support building tribal capacity through development of a Drought Contingency Plan. The plan will identify, evaluate, and prioritize mitigation actions and activities that will build long-term resiliency to drought and that will mitigate the risks posed by drought and will result in the development of proposals for Adaptation Planning (Category 2) funding.

Tribe:	Burns Paiute Tribe	Amount Funded:	\$ 49,778
Title:	<i>Capacity Building Support for Scoping Efforts for the Burns Paiute Tribe</i>		

Project Description: These funds will support hiring of a part-time tribal resilience administrative assistant to complete milestones 1) identify and pursue funding opportunities to implement measures identified in the USRT vulnerability assessment process covering the Tribes ancestral territory, 2) lead community engagement, on progress



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meeting Strategic Plan priorities and how they may change in response to drought, warming stream temperatures, and wildfire, 3) enhance cross-program coordination across Tribal departments in resiliency efforts, and 4) provide support to natural resource programs by integrating resilience measures into Strategic Plan priorities.

Tribe: Chilkat Indian Village **Amount Funded:** \$ 50,000

Title: *Building the Capacity of the Chilkat Indian Village to Develop an Adaptation Plan for the Chilkat River Valley*

Project Description: These funds will support a part-time position over the next year to build tribal capacity by coordinating a tribal adaptation planning process for the Chilkat River Valley and coastal areas. This part time position will work to build the capacity of the Chilkat Indian Village, as well as, the Chilkoot Indian Association. The CIV will develop a Category 2 proposal in the FY19 funding cycle to coordinate the development of a Chilkat River Valley Tribal Adaptation Plan.



United States Department of the Interior BUREAU OF INDIAN AFFAIRS FY 2016 Tribal Climate Resilience Program Funding

Total Number of Awards: 86

Total Funding: \$8,679,292

Category 1: Training & Workshops

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

Category 1 Number of Awards: 5

Category 1 Total Funding: \$763,237

Tribe: Affiliated Tribes of Northwest Indians (ATNI)

Title: ATNI/USET Collaborative Bi-Coastal Tribal Consortium Climate Change Trainings & Workshops

Project Description

Estimated Tribes Benefitting: 83

Award Amount: \$249,719

To jointly design and host Tribal Climate Change trainings and workshops to the elected Tribal leaders, Tribal climate change coordinators, planners, and program managers of the 83 ATNI and USET member Tribes, which will include Collaborative Bi-Coastal Tribal Climate Change Workshops on the east and west coasts, a Tribal Climate Change Boot Camp, and the Second Annual Tribal Leaders Summit on Climate Change

Tribe: Confederated Salish & Kootenai Tribes of the Flathead Reservation

Title: Tribal Collaboration to Address Climate Change in the North Central / Great Northern Region

Project Description

Estimated Tribes Benefitting: 2

Award Amount: \$73,550

To enable CSKT and Blackfoot Tribes to collaborate together and with the Roundtable on the Crown of the Continent and the Great Northern Landscape Conservation Cooperative (GNLCC) to conduct a Regional workshop with First Nations throughout the region to share ideas, strategies and provide support for Tribal Climate Adaptation Planning

Tribe: La Jolla Band of Luiseño Indian

Title: Southern California Tribal Climate Change Summit

Project Description

Estimated Tribes Benefitting: 18

Award Amount: \$208,455

Participants will learn about climate change and its impacts in the southern California region, processes for conducting climate change impact and vulnerability assessments and adaptation planning, and how Tribes are being impacted and have been addressing the impacts through developing and implementing adaptation strategies. A Summit Report will be produced and sessions will be recorded and posted with presentations to the ITEP website.

Tribe: Nooksack Indian Tribe

Title: Training Workshop and Webinars on the Nooksack Indian Tribe's Climate Change Project

Project Description

Estimated Tribes Benefitting: 10

Award Amount: \$25,255

To provide two webinars and a workshop to glacier-fed tribes in BIA NWT and possibly ALA regions to be held in the North Sound region for Tribes that are serviced by glaciers (including Stillaguamish, Sauk-Suiattle, Upper Skagit, Swinomish, Lummi, Snoqualmie and Tulalip Tribes, Quinault, Quileute, and Hoh tribes). We will also extend our invitation to Alaskan tribes that are within watersheds fed by glaciers to participate in person or by video conferencing.



United States Department of the Interior BUREAU OF INDIAN AFFAIRS FY 2016 Tribal Climate Resilience Program Funding

Category 1: Training & Workshops

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

Category 1 Number of Awards: 5

Category 1 Total Funding: \$763,237

Tribe: Rosebud Sioux Tribe

Title: Great Plains Tribal Water Alliance (GPTWA) Climate Partnership: Development of Water Resource Vulnerability Assessments Process and Guidebook

Project Description

Estimated Tribes Benefitting: 4

Award Amount: \$206,258

To build technical capacity for conducting climate vulnerability assessments focused on the Tribal water resources of four reservations: Rosebud, Pine Ridge, Standing Rock and Flandreau to demonstrate approaches for developing a water resources vulnerability assessment for each tribe; and to build technical capacity to develop their individual Tribal Climate Adaptation Plan and integrate it into other key tribal programmatic documents and processes



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

FY 2016 Tribal Climate Resilience Program Funding

Category 2: Climate Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, and Data Analysis

Category 2 Number of Awards: 20

Category 2 Total Funding: \$4,191,299

Tribe: Central Council of the Tlingit and Haida Indian Tribes of Alaska (CCTHITA)

Title: Development of a Climate Adaptation Plan to be shared with the Southeast Alaska Tribes

Project Description

Estimated Tribes Benefitting: 16

Award Amount: \$181,946

To develop a Climate Adaptation Plan Template that includes areas of concern and impact probability utilizing a climate matrix to help Central Council and other Southeast Alaska Tribes prepare for and increase their resilience to climate and weather related events. Planning for the future will allow the Central Council to benefit from emerging opportunities, protect against undesired impacts, and ensure the cultural and subsistence resources are available for future generations.

Tribe: Chilkoot Indian Association

Title: Identifying climate vulnerabilities and prioritizing adaption strategies for Eulachon populations in the Chilkoot and Chilkat rivers and the application of local monitoring systems

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$248,732

To complete a tribally-based climate change vulnerability assessment and adaptation plan, and to advance the Chilkoot Tribes scientific understanding about the local biology that directly impacts the traditional Chilkoot lifestyle and to assess the applicability of an economically sustainable method (eDNA) for collecting and monitoring population data in Northern Southeast Alaska

Tribe: Council of Athabascan Tribal Governments (CATG)

Title: Council of Athabascan Tribal Governments: Vulnerability Assessments and Data Analysis to Support Climate Adaptation Planning

Project Description

Estimated Tribes Benefitting: 8

Award Amount: \$247,352

To assess the vulnerability of communities to climate-change related air pollution that affects health and our traditional way of life and to develop the basis for climate adaptation plans. Emission, meteorological and chemical data will be collected to establish the baseline of current exposure to health-adverse air pollution and to identify source contributions. An automatic monitoring network will be implemented for air quality data collection and for community health advisories

Tribe: Delaware Tribe of Indians

Title: Oklahoma Kansas Tribal Coalition to Develop Climate Resilience (OKTC)

Project Description

Estimated Tribes Benefitting: 3

Award Amount: \$249,761

To better prepare for and respond to a changing climate and to build technical capacity for conducting climate adaptation planning focused on the environmental resources of Tribal service areas: Delaware Tribe, Shawnee Tribe, and the Delaware Nation and to conduct vulnerability assessments for each Tribe



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

FY 2016 Tribal Climate Resilience Program Funding

Category 2: Climate Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, and Data Analysis

Category 2 Number of Awards: 20

Category 2 Total Funding: \$4,191,299

Tribe: Inter-Tribal Council of Michigan, Inc. (ITCMI)

Title: ITCMI Climate Adaptation Planning for Forest Resources Among Michigan's Federally Recognized Tribes

Project Description **Estimated Tribes Benefitting:** 9 **Award Amount:** \$204,705

To develop integrated adaptation strategies and planning resources that will allow Tribes to anticipate probable climate impacts and implement the best strategies to protect critical forest resources. Tribal forest-related climate change priorities will be identified and communicated to both tribal and non-tribal leadership for inclusion in current and future decision-making on tribal, state, and federal lands.

Tribe: Kickapoo Tribe of Oklahoma

Title: Development of a Climate Change Adaptation Plan for the Kickapoo Tribe of Oklahoma

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$73,263

To develop a climate change adaptation plan that will identify high-priority areas of interest for the development of adaptation strategies, develop goals and actions for each high-priority area of interest, and identify the resources necessary to accomplish each action. The plan will address the following sectors: land use, utilities, emergency services, human health, cultural resources, fish and wildlife, and water resources.

Tribe: La Jolla Band of Luiseño Indian

Title: La Jolla Climate Change Adaptation Planning

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$117,051

To develop and implement adaptation strategies and plans in order to protect our Tribal resources, to raise awareness about the changing climate and its variations among Tribal departments and leadership, to improve existing Tribal planning documents, to make a draft Climate Change Adaptation Plan, to build understanding and improve collaboration with federal, state, and local communities and neighboring Tribes

Tribe: Native Village of Elim

Title: Climate Resilience Planning Project

Project Description **Estimated Tribes Benefitting:** 5 **Award Amount:** \$162,559

To conduct climate adaptation planning and implementation activities to address climate impacts through restoration of Traditional Ecological Knowledge (TEK) and integration into conventional data collection and analysis as an adaptation planning, implementation, and policy strategy and to establish a network of Native Villages and other stakeholders that addresses watershed, landscape-scale ecosystem, habitat, and species vulnerabilities with knowledge exchange and training components



United States Department of the Interior BUREAU OF INDIAN AFFAIRS FY 2016 Tribal Climate Resilience Program Funding

Category 2: Climate Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, and Data Analysis

Category 2 Number of Awards: 20

Category 2 Total Funding: \$4,191,299

Tribe: Navajo Nation

Title: Ancient Trees and Global Change: A vulnerability assessment of old-growth forests on the Navajo Nation

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$216,694

To generate new quantitative datasets synthesized with new traditional ecological knowledge from Navajo tribal members and elders on forests history, importance, and processes to develop a vulnerability assessment of our old-growth forests in the face of impending climate changes. This study represents a vital step in our ability to adapt and plan for climate change, and lays the groundwork for future observations of change as we manage our forests for the benefit of the Diné for perpetuity.

Tribe: Nooksack Indian Tribe

Title: Continued Baseline Monitoring to discern climate change impacts, refined DHSVM model calibration and verification, vulnerability assessment, and adaptation planning in the Nooksack River Watershed

Project Description

Estimated Tribes Benefitting: 4

Award Amount: \$250,000

To develop an impact analysis for sediment, stream temperature, and hydrology associated with legacy impacts and climate change, a vulnerability assessment, and adaption plan for river restoration that is effective in the face of climate change for the Nooksack River in general, and more specifically, the Middle Fork and North Fork Nooksack rivers

Tribe: Oscarville Traditional Council

Title: Oscarville Traditional Council's Coordination Center for A Holistic Approach to Climate Adaptation in Alaska Native Villages

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$248,950

To enable the Oscarville Traditional Council and Cold Climate Housing Research Center (CCHRC) to build on a cooperative pilot project to establish a Coordination Center to create the climate adaptation and sustainability plan. The template used to create this plan will inform state and regional governments as they address several of Alaska Native Villages that are imminently threatened by climate change.

Tribe: Point No Point Treaty Council

Title: FY 2016 Point No Point Treaty Council Stream Modeling and Pilot Estuary Vulnerability Assessments

Project Description

Estimated Tribes Benefitting: 3

Award Amount: \$243,624

To compare past data with current data to demonstrate more clearly the climate change implications that may have taken place already for our Tribes to determine future declining trends toward our natural resources in hopes that we can better prepare for the future



United States Department of the Interior BUREAU OF INDIAN AFFAIRS FY 2016 Tribal Climate Resilience Program Funding

Category 2: Climate Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, and Data Analysis

Category 2 Number of Awards: 20

Category 2 Total Funding: \$4,191,299

Tribe: Rosebud Sioux Tribe

Title: Great Plains Tribal Water Alliance (GPTWA) Climate Partnership: Development of Water Resource Vulnerability Assessments to Build Tribal Resilience

Project Description

Estimated Tribes Benefitting: 4

Award Amount: \$243,202

The project team will work with the South Dakota School of Mines to hire four engineering/science student members of participating Tribes that attend a Tribal college to hold webinars, conduct vulnerability assessments, and provide a summary workshop and followup webinars and/or focus groups to evaluate the effectiveness of the climate summaries to convey climate and related impact/vulnerability information. Results will be developed into a summary report.

Tribe: Shoshone and Arapaho Tribes of Wind River Indian Reservation

Title: Understanding the History of Water on Wind River Reservation to Inform Climate Adaptation

Project Description

Estimated Tribes Benefitting: 2

Award Amount: \$249,429

To use rings of Cottonwood trees to reconstruct approximately 250 years (back to around the year 1770, pre-reservation era) to contribute to monitoring climate and hydrology at the reservation for climate adaptation planning (agriculture and drought planning), vulnerability assessments (drought risk study), and design and implementation of infrastructure (storage feasibility study)

Tribe: Skokomish Tribe

Title: Development and Application of Liquid Chromatography – Mass Spectrometry (LC/MS) methods to monitor algal toxins in Hood Canal, Washington

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$250,000

To develop sensitive, reliable analytical methods for algal toxins and to work with DOH and the NW Association of Networked Ocean Observing System (NANOOS) to monitor algal toxins from water and shellfish tissue samples to establish an early alert system

Tribe: The Squaxin Island Tribe

Title: Assessment of Climate Change-Related Impacts and Adaptation Planning for Cultural and Subsistence Resources – Shellfish and Forage Fish

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$185,677

To assess the vulnerability of shellfish and forage fish within Oakland Bay due to sea level rise and to explore adaptation actions to mitigate the threat of changing ocean conditions to maintain sustainable harvests, and to create a map/visual of the current shellfish zones for 2016 and projected shellfish zones for 2100 under various sea level rise projections to develop a climate adaptation strategy to sustain the shellfish habitat that the tribe depends on



United States Department of the Interior BUREAU OF INDIAN AFFAIRS FY 2016 Tribal Climate Resilience Program Funding

Category 2: Climate Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, and Data Analysis

Category 2 Number of Awards: 20

Category 2 Total Funding: \$4,191,299

Tribe: Tolowa Dee-ni' Nation (formerly Smith River Rancheria)

Title: Baseline and Vulnerability Assessment of Da'-me' (Smith River Estuary) for Climate Adaptation Planning

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$249,035

To assess several resilience stressors and conduct a vulnerability assessment for the Smith River Estuary to increase understanding of the potential impacts from climate change and advance climate adaptation, as well as, ocean and coastal management knowledge, in order to protect culturally important marine resources

Tribe: Tulalip Tribes

Title: Tulalip Climate Adaptation Plan

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$250,000

To support a climate coordinator and enroll in the Model Forest Policy Program's Climate Solutions University to use this stepwise climate curriculum with expert coaching with the tribe's climate planning team's support to develop an adaptation plan that fits tribal, local and regional priorities and resources

Tribe: Upper Snake River Tribes Foundation

Title: Upper Snake River Tribes Foundation Climate Change Adaptation Plan for the Aquatic, Terrestrial, and Tribal Enterprise Resources in the Upper Snake River Watershed of Idaho, Nevada, Oregon, and Wyoming

Project Description **Estimated Tribes Benefitting:** 4 **Award Amount:** \$147,312

To conduct a collaborative, broad, and regional-scale adaptation plan for aquatic/terrestrial species, habitats, and tribal enterprises utilizing several approaches for the four tribes involved (Burns Paiute Tribe, Fort McDermitt Paiute-Shoshone Tribe, Shoshone-Bannock Tribes of the Fort Hall Reservation, and Shoshone-Paiute Tribes of the Duck Valley Reservation) building from a completed vulnerability assessment

Tribe: Yurok Tribe

Title: Vulnerability Assessment for Yurok Coastal Prairies

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$172,007

To evaluate the extent of historical anthropogenic caused conversion of mountain meadows to forest by historical logging practices, to quantify the rate of conifer encroachment caused by the absence of traditional Yurok prescribed burning and land management practices, and to prepare a climate change vulnerability assessment for mountain meadows to qualify the conditions and likelihood of perseverance and resilience of these sensitive ecosystems when considering expected climate change impacts



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

FY 2016 Tribal Climate Resilience Program Funding

Category 3: Travel (Climate)

Travel Support for Climate Adaptation Planning Training and Cooperative Efforts

Category 3 Number of Awards: 32

Category 3 Total Funding: \$720,006

Tribe: Affiliated Tribes of Northwest Indians (ATNI)

Title: ATNI/USET - Collaborative Bi-Coastal Tribal Consortium Climate Change Initiative: Travel

Project Description **Estimated Tribes Benefitting:** 57 **Award Amount:** \$13,156

For ATNI Executive Committee and Climate Change Project Coordinator to participate in LCCs, ACCCNRS, Advisory Teams, and the ATNI & USET Collaborative Bi-Coastal Tribal Consortium Climate Change Initiative Committee (ESAC) in order to assist in coordinating and disseminating information and policy issues to the 57 Tribes of ATNI

Tribe: Aroostook Band of Micmacs

Title: Aroostook Band of Micmacs - Category 3 - Travel

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$27,589

To access training and technical workshops that will build capacity and currency of skills and a knowledge base for Tribal staff and leaders who will be involved with the creation and implementation of a strategic climate change adaptation plan

Tribe: Bristol Bay Native Association (BBNA)

Title: Bristol Bay Tribal Leader and Staff Travel Support to Attend the 2016 7th Annual Northwest Climate Conference

Project Description **Estimated Tribes Benefitting:** 14 **Award Amount:** \$53,216

To bring BBNA Natural Resources Department staff that work on climate change issues, as well as the tribal president or their designees of fourteen (14) tribes from the Bristol Bay region of Southwest Alaska to the Pacific Northwest climate change conference

Tribe: Buena Vista Rancheria of Me-Wuk Indians

Title: Climate Adaptation Planning Travel Support

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$10,000

To initiate planning to address climate change by attending relevant trainings; networking with other tribes and gaining as much support as possible from other like-minded agencies. Based on the knowledge acquired through the trainings, the Tribe hopes to develop a climate adaptation plan.

Tribe: Chickaloon Native Village

Title: Chickaloon Native Village Travel Proposal

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$16,968

For Traditional Council members and/or staff members to attend trainings to develop Tribal capacity and understanding to enable us to prepare for developing a written climate change adaptation and mitigation plan



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

FY 2016 Tribal Climate Resilience Program Funding

Category 3: Travel (Climate)

Travel Support for Climate Adaptation Planning Training and Cooperative Efforts

Category 3 Number of Awards: 32

Category 3 Total Funding: \$720,006

Tribe: Chugach Regional Resources Commission (CRRC)

Title: Climate Change Adaptation Planning Category 3. Travel Support – Climate

Project Description **Estimated Tribes Benefitting:** 7 **Award Amount:** \$13,920

For those Tribes and staff involved in the CRRC climate adaptation process to attend recommended climate workshops, technical training, and cooperative entity meetings

Tribe: Confederated Tribes of Grand Ronde Community

Title: Confederated Tribes of Grand Ronde - Climate Travel Support

Project Description **Estimated Tribes Benefitting:** 4 **Award Amount:** \$5,717

To build Tribal capacity by supporting several Tribal Natural Resources staff to attend climate adaptation trainings and workshops

Tribe: Confederated Tribes of the Colville Reservation

Title: Colville Tribes Climate Change Adaptation Planning Project 2016, Travel and Support Category 3

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$14,400

To provide training to grow future climate leaders and enhance the Tribe's current expertise and capabilities in managing Climate Change Adaptation by attending the Northwest Climate Science Center Boot Camp, Tribal Climate Camp, Climate Change Adaptation training, and the 2017 National Adaptation Forum

Tribe: Federated Indians of Graton Rancheria

Title: Federated Indians of Graton Rancheria Climate Change Education Travel

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$7,903

To support and develop Tribal Climate Adaptation practices by achieving the following four goals: Educating and empowering Tribal Leadership, staff and Tribal citizens, Promoting Tribal staff development in Climate Adaptation education and resource management, Initiating Climate Adaptation technical information sharing, and Obtaining resources and tools for Climate Adaptation Planning, education and training to build tribal capacity for drafting future Climate Adaptation Plans

Tribe: Fort Sill Apache Tribe

Title: FSAT Climate Change Travel Support

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$2,920

To attend climate change related trainings to enhance understanding on climate change and to help facilitate climate change endeavors



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

FY 2016 Tribal Climate Resilience Program Funding

Category 3: Travel (Climate)

Travel Support for Climate Adaptation Planning Training and Cooperative Efforts

Category 3 Number of Awards: 32

Category 3 Total Funding: \$720,006

Tribe: Grand Portage Band of Lake Superior Chippewa

Title: Grand Portage Vulnerability Assessments, Training, Coastal Fisheries and Surveys to Address Lake Superior Coastal Management Concerns

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$14,300
To permit tribal staff to attend important trainings to build our climate adaptation knowledge and skills

Tribe: Hopi Tribe

Title: Hopi Tribe Climate Adaptation Travel Support for FY17

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$16,888
To build the capacity of the Hopi Tribe to analyze the effects of climate change on Hopi lands and water resources by attending technical workshops and trainings related to climate change assessment and adaptation to assess potential effects of climate variation and to devise and create strategic plans for the Hopi Tribe to deal with a changing climate

Tribe: Houlton Band of Maliseet Indians

Title: Participation in two cooperative climate change adaptation efforts at the regional level

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$4,270
To participate in climate change adaptation efforts at the regional level

Tribe: Kalispel Tribe of Indians

Title: Kalispel Tribe Climate Resilience Team Travel Support - Climate

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$19,088
To attend climate change and adaptation trainings and conferences at the local, regional, and national level to build Tribal capacity to address climate change issues

Tribe: La Jolla Band of Luiseño Indian

Title: La Jolla Band of Luiseño Indians Travel Support - Climate #1

Project Description **Estimated Tribes Benefitting:** 20 **Award Amount:** \$30,122
To allow La Jolla Tribal Leadership, Tribal Administrator, and other departmental staff to learn climate change adaptation planning and networking with local, regional, and national agencies to develop a strong climate change resilience partnership



United States Department of the Interior BUREAU OF INDIAN AFFAIRS FY 2016 Tribal Climate Resilience Program Funding

Category 3: Travel (Climate)

Travel Support for Climate Adaptation Planning Training and Cooperative Efforts

Category 3 Number of Awards: 32

Category 3 Total Funding: \$720,006

Tribe: Makah Indian Tribe

Title: Makah Climate Change Travel Support

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$9,890

To attend relevant climate change related trainings and workshops for several staff engaged in the Climate Change Workgroup in Fisheries, Office of Marine Affairs, and Forestry to attend climate change related meetings to report back to advance our adaptation planning efforts

Tribe: Native American Fish and Wildlife Society (NAFWS) Southwest Region

Title: Travel Assistance for Tribes to attend Climate Change Workshop held in conjunction with the 2017 NAFWS SW Reg. Conf.

Project Description **Estimated Tribes Benefitting:** 20 **Award Amount:** \$20,000

To support travel to Annual Southern Rockies (SR) LCC "Tribes Only" Climate Change Response Meeting

Tribe: Navajo Nation

Title: Tribal Travel Support for Participants to Attend Climate Trainings and Workshops including the participation on the Steering Committee and Science Working Group of the SRLCC

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$250,000

To support travel and participation to engage partners and local chapters and organizations in a Climate Change Adaptation Planning and Training Workshop and to continue to participate in the SRLCC to engage and promote climate adaptation capacity for communities across the Navajo Nation to enhance the ability to provide more climate change related projects in communities with the assistance from NNDFW to develop a more "climate ready" management plan

Tribe: Nooksack Indian Tribe

Title: Nooksack Indian Tribe Travel to Relevant Climate Change Training Workshops, Meetings, and Symposiums

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$17,700

To attend a number of conferences, forums, and workshops that build capacity and expertise in climate change adaptation planning and action for tribal technical staff and program managers that are leads in climate change adaptation coordination



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

FY 2016 Tribal Climate Resilience Program Funding

Category 3: Travel (Climate)

Travel Support for Climate Adaptation Planning Training and Cooperative Efforts

Category 3 Number of Awards: 32

Category 3 Total Funding: \$720,006

Tribe: Prairie Band Potawatomi Nation

Title: Tribally-Designed Climate Change Communication Workshops

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$14,548

To coordinate tribally designed meetings and workshops in the area of climate change adaptation to enable in-person meetings and workshops between representatives of state and federal agencies and the Tribal community and administrative personnel after acquiring the skills, tools and knowledge necessary for climate communication

Tribe: Pueblo of Tesuque

Title: Travel Support - Climate Change

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$13,075

To allow staff to attend various climate trainings and conferences to begin to study and learn more about the impacts of climate change on the Pueblo Tesuque and to build capacity to learn more about the climate change and data collection and how to use GIS/GPS in developing vulnerability maps and strategic plans for addressing climate change implications and to share this information with the community

Tribe: Quapaw Tribe of Oklahoma

Title: Quapaw Tribe Climate Change Training Travel Support

Project Description **Estimated Tribes Benefitting:** 3 **Award Amount:** \$14,886

To send Quapaw Tribe Environmental Department personnel to participate in a myriad of forums and training relating to climate change

Tribe: Quileute Tribe

Title: Quileute Tribe Climate Change Travel Support

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$10,000

To educate the next generation of staff persons on climate to fill in retirements - the plans in process are the seeds for the future, and remaining/incoming staff will be the gardeners

Tribe: Quinault Indian Nation

Title: Climate-Smart Conservation and Training

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$20,431

To increase Tribal knowledge of climate change impacts and adaptation planning by sending staff and leadership to the USFWSNCTC Safe Guarding Wildlife from Climate Change web training & Climate Smart Conservation Training, the NW Environmental Training Center Salmon Habitat trainings, the 2017 National Adaptation Forum, ACCO Climate Strategies Forum, and the Climate Change Boot Camp



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

FY 2016 Tribal Climate Resilience Program Funding

Category 3: Travel (Climate)

Travel Support for Climate Adaptation Planning Training and Cooperative Efforts

Category 3 Number of Awards: 32

Category 3 Total Funding: \$720,006

Tribe: Ramona Band of Cahuilla

Title: Ramona Band of Cahuilla Travel Support for Climate Adaptation Planning

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$18,724

To attend climate change-specific trainings and conferences to ensure that staff have a strong baseline understanding of climate change planning, adaptation processes and scenario planning to engage with the community and to present mitigation strategies for impacts that the Ramona Band will likely experience as a result of climate change

Tribe: Sauk-Suiattle Indian Tribe

Title: Travel Support - Continued Education in Climate Sciences for Sauk-Suiattle Indian Tribe Staff

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$2,504

To attend a variety of climate change-oriented conferences and workshops to build Tribal capacity to address the emerging threat of climate change to the Tribe's traditional way of life and to assert Tribal values during interdisciplinary natural resource management panels, and to make informed scientific decisions for the betterment of the Sauk-Suiattle community

Tribe: Suquamish Tribe

Title: Suquamish Travel Support for PNW Climate Science Conference

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$8,350

To attend the 7th Annual PNW Climate Science Conference to provide information to tribal members and staff who will be participating in the Suquamish Climate and Ocean Change Adaptation Planning process

Tribe: Upper Skagit Indian Tribe

Title: Upper Skagit Indian Tribe Climate Adaptation and Resiliency Travel Support

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$20,625

To provide travel support for tribal representatives to attend trainings, conferences and workshops to advance climate adaptation assessment and resiliency planning

Tribe: Upper Snake River Tribes Foundation

Title: Travel Support to Develop Climate Change Adaptation Knowledge, Skills, and Resource Building

Project Description **Estimated Tribes Benefitting:** 4 **Award Amount:** \$10,636

To attend climate change focused conferences, meetings, seminars, and classes in order to network and to increase knowledge of current and developing climate change projects/classes/theories/and applications



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
FY 2016 Tribal Climate Resilience
Program Funding

Category 3: Travel (Climate)

Travel Support for Climate Adaptation Planning Training and Cooperative Efforts

Category 3 Number of Awards: 32

Category 3 Total Funding: \$720,006

Tribe: Walker River Paiute Tribe

Title: Walker River Paiute Tribe Travel Support

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$24,285

To train two or three staff and tribal leaders on the effects of climate change and provide adaptation tools needed to protect our culture and resources

Tribe: Wichita and Affiliated Tribes

Title: Wichita Department of Environmental Programs (WDEP) Travel Support

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$4,395

To attend technical workshops or to participate in cooperative climate change adaptation efforts, including Landscape Conservation Cooperatives and other similar management forums

Tribe: Yurok Tribe

Title: Yurok Tribe's Request for Travel Support to Continue Climate Change Outreach and Capacity Building

Project Description **Estimated Tribes Benefitting:** 3 **Award Amount:** \$9,500

To continue participation in the North Pacific Landscape Conservation Cooperative (NPLCC) and to attend a climate change adaptation training and a climate change capacity building conference



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

FY 2016 Tribal Climate Resilience Program Funding

Category 4: Ocean and Coastal Management Planning

To Develop Ocean and Coastal Management Plans for Marine and Coastal Resources

Category 4 Number of Awards: 10

Category 4 Total Funding: \$1,971,328

Tribe: Agdaagux Tribe of King Cove

Title: Ocean and Coastal Community-Based Resource Monitoring in the King Cove/Aleutian Island Region, Alaska

Project Description

Estimated Tribes Benefitting: 2

Award Amount: \$174,362

To address climate, ocean, and coastal management issues by developing cooperative marine resource planning strategies that are applicable to all BeringWatch communities to enhance the detection rate of changing climatic conditions and to plan for future adaptation in response to potential future impacts by expanding the Citizen Sentinel (CS) component of the BeringWatch program by furnishing Volunteer Sentinels with appropriate training

Tribe: Bristol Bay Native Association (BBNA)

Title: Bristol Bay Marine Multi-Species Conservation Tribal Planning Research Project

Project Description

Estimated Tribes Benefitting: 3

Award Amount: \$250,000

To create an integrated GIS system of spatial data that documents subsistence use areas and marine mammal habitat combining TEK and western science to expand the existing Bristol Bay Marine Mammal Council management plans and increase awareness among federal and state marine mammal co-managers of Bristol Bay concerns and issues to building capacity with partner coastal communities for understanding and adapting to changes in the distributions and availability of marine mammals for subsistence

Tribe: Chugach Regional Resources Commission (CRRC)

Title: Monitoring for Ocean Acidification Near Coastal Villages and Communities in South-Central Alaska: Building Capacity and Assessing Vulnerability

Project Description

Estimated Tribes Benefitting: 7

Award Amount: \$43,018

To determine the annual variations, outline trends and continue with the training and capacity building in the villages concerning climate change and to process ocean acidification samples from the villages and partners to secure long term funding and partnerships

Tribe: Confederated Tribes of Siletz Indians

Title: Siletz Tribal Finfish Vulnerability Assessment - Phase One

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$250,000

To understand and document the effects of predicted climate change scenarios on finfish habitat and to develop the capacity to address those predicted changes to allow for cultural preservation



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

FY 2016 Tribal Climate Resilience Program Funding

Category 4: Ocean and Coastal Management Planning

To Develop Ocean and Coastal Management Plans for Marine and Coastal Resources

Category 4 Number of Awards: 10

Category 4 Total Funding: \$1,971,328

Tribe: Lummi Tribe of the Lummi Reservation

Title: Lummi Nation Adaptation Planning for Coastal Resources at Risk Phase II: Incorporating and Refining Phase I Results

Project Description

Estimated Tribes Benefitting: 2

Award Amount: \$236,878

To evaluate 2015 study results and identify key drivers and outcomes to evaluate and re-prioritize tidal delta and estuary restoration alternatives in terms of actions that best mitigate anticipated climate change impacts, to incorporate updated federal considerations for regulatory measures in the face of climate change, to develop a species or fishery-specific plan, to determine resources required to adopt and implement the plan, and to publish the resulting report

Tribe: Pribilof Islands Aleut Community of St. Paul Island

Title: Phase II: Expansion of the BeringWatch/ Sentinel Program to improve ocean and coastal management and adaptation planning

Project Description

Estimated Tribes Benefitting: 7

Award Amount: \$178,982

To continue developing cooperative marine resource planning strategies that are applicable to all BeringWatch communities (St. Paul Island, King Cove, Akutan, False Pass, and Unalaska) in order to detect rapidly changing climatic conditions and plan for future adaptation and response to potential impacts, while including Hooper Bay (Naparyarmiut in Central Yup'ik), Yukon-Kuskokwim Delta, Alaska

Tribe: Sitka Tribe of Alaska

Title: Assessing Regional Ocean Acidification Impacts Using the SEATOR Partnership

Project Description

Estimated Tribes Benefitting: 16

Award Amount: \$248,247

To collect discrete water samples at each Southeast Alaska Tribal Ocean Research (SEATOR) Partnership site to assist all Southeast Alaska Tribes to make adaptive management decisions regarding their cultural and natural resources and to assess their vulnerability for human health risks and resource sustainability in their respective community as an integral means of measurement to determine the "tipping point" at which Tribal leaders need to develop new strategies and adaption plans regarding traditional subsistence harvest practices.

Tribe: Swinomish Indian Tribal Community

Title: Swinomish Sea Level Rise Adaptation Planning for High Risk Sites

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$91,631

To provide the Tribe with the framework to plan and implement site specific shoreline adaptation actions addressing sea level rise within the context of a complex web of interrelated cultural, jurisdictional and legal issues to develop specific tools that address how to respond to these potentially competing values and to serve as a model for other Tribes in the Puget Sound/ Salish Sea region who face similar challenges



United States Department of the Interior BUREAU OF INDIAN AFFAIRS FY 2016 Tribal Climate Resilience Program Funding

Category 4: Ocean and Coastal Management Planning

To Develop Ocean and Coastal Management Plans for Marine and Coastal Resources

Category 4 Number of Awards: 10

Category 4 Total Funding: \$1,971,328

Tribe: Tolowa Dee-ni' Nation (formerly Smith River Rancheria)

Title: Tolowa Dee-ni' Nation Marine Water Quality Monitoring for Ocean and Coastal Management Planning

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$248,210

To conduct baseline ocean water chemistry monitoring to aid in the assessment of climate change in the development of ocean and coastal management planning for the Tolowa Dee-ni' Nation to inform an assessment of smelt habitat, a State-designated marine protected area, to collaborate with the Central and Northern California Ocean Observing System (CeNCOOS), the first such tribal collaboration with this group (i.e. pilot project)

Tribe: Upper Skagit Indian Tribe

Title: Upper Skagit Indian Tribe Feasibility Study and Capacity Building to Protect In-Stream Flows In the Skagit River Watershed

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$250,000

To develop a feasibility study assessing opportunities to capture, store and infiltrate peak flow runoff (stormwater) to support in-stream flows and to hire a licensed hydrogeologist to build ongoing Tribal staff capacity to address water resource issues. Protection of in-stream flows under climate change is essential to support the Tribe's treaty-reserved fishery and aquatic resources.



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
FY 2016 Tribal Climate Resilience
Program Funding

Category 5: Travel (Ocean and Coastal)

Travel Support for Ocean and Coastal Collaborative Planning Efforts

Category 5 Number of Awards: 2

Category 5 Total Funding: \$15,140

Tribe: Confederated Tribes of Grand Ronde Community

Title: Confederated Tribes of Grand Ronde - Ocean / Coastal Travel Support

Project Description **Estimated Tribes Benefitting:** 4 **Award Amount:** \$5,140

To build Tribal capacity in marine planning by supporting several Tribal Natural Resources staff to attend marine resource management trainings and workshops

Tribe: Quileute Tribe

Title: Quileute Tribe Ocean/Coast Planning Travel

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$10,000

To attend West Coast Regional Planning Body and West Coast Ocean Partnership, ocean and fisheries planning meetings, and state marine spatial planning and ocean mapping



United States Department of the Interior BUREAU OF INDIAN AFFAIRS FY 2016 Tribal Climate Resilience Program Funding

Category 6: Management Internships

To integrate Climate Mitigation or Adaptation Planning into Programs for the Benefit of Tribes and Tribal Resources

Category 6 Number of Awards: 6

Category 6 Total Funding: \$422,408

Tribe: Affiliated Tribes of Northwest Indians (ATNI)

Title: CAT 6 - Youth Management Internships: ATNI Internships & Youth Engagement Initiative

Project Description **Estimated Tribes Benefitting:** 57 **Award Amount:** \$74,531

A management intern will be placed with the BIA Northwest Region and two others at different ATNI PNW office locations to provide management and policy support to ATNI member Tribes by supporting the integration of climate mitigation and adaptation planning into Tribal programs and Inter-Tribal organizations

Tribe: Bear River Band of Rohnerville Rancheria

Title: Bear River Band of Rohnerville Rancheria Youth Internship Proposal

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$50,000

The youth intern will work within the Environmental and Natural Resources Department to support the integration of Climate Change mitigation and adaptation into all tribal departments and tribal lands.

Tribe: Confederated Salish & Kootenai Tribes of the Flathead Reservation

Title: CSKT "EAGLES" (Environmental Advocates for Global and Local Ecological Sustainability)

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$75,000

The first year of the EAGLES involved simply exposing the students and teacher advisors, and even community members, to the fact that the Tribes have a Climate Change Strategic Plan and some of the basic issues related to climate change and traditional ecological knowledge. This year, the intention is to fully engage the EAGLES students and teachers in specific activities related to the CSKT Climate Change Strategic Plan and related climate change and environmental issues.

Tribe: Confederated Tribes of Warm Springs

Title: CTWS Climate Change Readiness Program (Category 6)

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$74,998

Interns will participate in monthly meetings, public outreach events and a project of their interest that fits in with Climate Change Readiness Program adaptation needs with oversight provided by individual mentors, project lead and the Climate Change Working Group. Interns will explore the many facets of natural resources management performed by the tribes and gain hands-on experience within each department during specialized adaptation planning efforts.



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
FY 2016 Tribal Climate Resilience
Program Funding

Category 6: Management Internships

To integrate Climate Mitigation or Adaptation Planning into Programs for the Benefit of Tribes and Tribal Resources

Category 6 Number of Awards: 6

Category 6 Total Funding: \$422,408

Tribe: Quapaw Tribe of Oklahoma

Title: Quapaw Tribe Youth Management Internships

Project Description

Estimated Tribes Benefitting: 3

Award Amount: \$73,055

To hire an intern to perform professional level research, planning, and management while developing a Comprehensive Agricultural Climate Control Mitigation Plan

Tribe: Quinault Indian Nation

Title: Quinault Youth Internship: Traditional Land Management Planning and Continued Monitoring and Preservation of Native Plants

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$74,824

To identify areas of tree encroachment in prairie systems caused by climate change, areas impacted by management activities and landowner agreements, and areas that contain unique, but unprotected, prairie plants, while continuing projects from the last proposal and developing new skills in natural resource management, education/outreach, public speaking, networking, technical writing, and GIS



United States Department of the Interior BUREAU OF INDIAN AFFAIRS FY 2016 Tribal Climate Resilience Program Funding

Category 7: Research Internships

To advance research to indentify climate vulnerabilities, inform or perform data analysis, or address ocean and coastal management challenges

Category 7 Number of Awards: 2

Category 7 Total Funding: \$149,531

Tribe: Affiliated Tribes of Northwest Indians (ATNI)

Title: CAT 7 - Youth Research Internships: ATNI Internships & Youth Engagement Initiative

Project Description **Estimated Tribes Benefitting:** 57 **Award Amount:** \$74,531

A research intern will be placed with the BIA Northwest Region and two others at different ATNI PNW office locations to provide technical and research support, and data analysis to ATNI member Tribes by advancing research to identify climate vulnerabilities, coastal challenges and to inform or perform data analysis

Tribe: Quinault Indian Nation

Title: Climate Change and Wildlife Populations on the Quinault Indian Reservation

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$75,000

To permit a Tribal youth to gain professional experience in wildlife and climate change research and management applications and to develop skills in study design, data collection, analytical methods, technical writing, GIS, education/outreach, public speaking, and professional networking, and to establish mentors and references that may open the door to potential career paths to build Tribal capacity



United States Department of the Interior BUREAU OF INDIAN AFFAIRS FY 2016 Tribal Climate Resilience Program Funding

Category 8: Youth Engagement

To engage students in K-12 in STEM education, which may be integrated with Traditional Ecological Knowledge, with a significant climate adaptation, mitigation, or ocean and coastal management focus

Category 8 Number of Awards: 1

Category 8 Total Funding: \$74,911

Tribe: Suquamish Tribe

Title: Building Tribal Youth Connections through Climate Change

Project Description

Estimated Tribes Benefitting: 5

Award Amount: \$74,911

To engage approximately 300 students from Tribal communities in AK, WA and the Pacific Rim in a penpal exchange to promote cultural and scientific exchange, to develop bioregional understanding of issues in ecosystem science, specifically the effects of climate change and ocean acidification on local fisheries and food sovereignty issues, and to validate and support the teaching and learning of integrated traditional indigenous learning systems with climate science



United States Department of the Interior BUREAU OF INDIAN AFFAIRS FY 2016 Tribal Climate Resilience Program Funding

Category 9: Capacity Building

For scoping purposes to permit tribe without technical and staffing capacity to hire part time support to better prepare to propose in future years

Category 9 Number of Awards: 8

Category 9 Total Funding: \$371,432

Tribe: Apache Tribe of Oklahoma

Title: Apache Tribe of Oklahoma Addresses Climate Change

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$50,000

To develop awareness in the tribal community and to identify the potential impacts of climate change, to allow leadership and staff to learn more about the issue by attending training and workshops on the issue, and to develop a strategic plan and a formal assessment of the vulnerability of the jurisdiction

Tribe: Cold Springs Rancheria of Mono Indians of California

Title: Cold Springs Rancheria Climate Resilience Capacity Building Program

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$50,000

To identify how the Tribe will adapt to climate change through part-time staff support for a review and prioritization process to increase the strength of future funding proposals in area of climate adaptation planning to maximize cultural plant production on the Rancheria and adjacent national forest lands, to enhance habitat for native animals such as deer and bear, and to protect communities and watersheds from the devastating effects of uncontrolled wildfires

Tribe: Native Village of Shishmaref

Title: Native Village of Shishmaref Capacity Building

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$45,484

To fund a part time staff to identify Shishmaref tribal climate adaptation needs through scoping and a prioritization process in order to increase the strength of proposal for a future Tribal Climate Resilience notice of funding in Climate Adaptation Planning or Ocean and Coastal Management Planning

Tribe: Pokagon Band of Potawatomi

Title: Addressing Climate Change through Knowledge, Research, and Development

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$50,000

To assist the Tribe in investigating climate change and its affects as a perplexing factor in re-establishment of some culturally significant species, to develop vulnerability assessments and climate change plans, to work with elders and departments to determine their needs and personal accounts related to climate change, and to develop educational materials and outreach for the classroom, including, but not limited to, climate change related science kits and climate change effects games



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

FY 2016 Tribal Climate Resilience Program Funding

Category 9: Capacity Building

For scoping purposes to permit tribe without technical and staffing capacity to hire part time support to better prepare to propose in future years

Category 9 Number of Awards: 8

Category 9 Total Funding: \$371,432

Tribe: Sac and Fox Nation

Title: Sac and Fox Nation Climate Resiliency Capacity Building Project

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$50,000

To hire tribal staff and contractor to complete a narrative of Sac and Fox Nation concerns regarding climate impacts to tribal values and / or tribal management concerns and research/develop a clear narrative approach to building pre-proposal capacity leading to a future climate change proposal

Tribe: Samish Indian Nation

Title: Samish Indian Nation Tribal Climate Resilience Capacity Building (Category 9)

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$32,821

To identify sectors of natural, cultural, and built environments that are important to the Tribe and could potentially be affected by climate change to prepare for, and gather community support for, a Samish climate adaptation plan and to build pre-proposal capacity leading to a future climate change proposal in Categories 2 or 4 of the BIA Tribal Climate Resilience Program Climate Funding Notice in 2017

Tribe: Tangirnaq Native Village (aka Woody Island)

Title: Tangirnaq Native Village - Capacity Building - BIA Affairs Trust Services: Subsistence Diet Adaptation from a Changing Environment

Project Description **Estimated Tribes Benefitting:** 6 **Award Amount:** \$50,000

To identify whether risks are present to our traditional diet, either in quality or quantity of the food supply to educate our tribal members about these risks and develop a strategy to address how we plan to adapt to a changing climate

Tribe: Viejas Band of Kumeyaay Indians

Title: Viejas Climate Change Capacity Building Project

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$43,127

To fund part-time staff to identify tribal climate adaptation needs through a scoping or similar review and prioritization process in order to increase the strength of proposals in future Tribal Climate Resilience notices of funding



United States Department of the Interior BUREAU OF INDIAN AFFAIRS FY 2015 Tribal Cooperative Landscape Conservation Program Funding

Total Number of Awards: 104

Total Funding: \$11,813,714

Category 1: Training & Workshops

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

Category 1 Number of Awards: 7

Category 1 Total Funding: \$823,407

Tribe: Affiliated Tribes of Northwest Indians (ATNI)

Title: Collaborative Bi-Coastal Tribal Consortium Climate Change Initiative

Project Description **Estimated Tribes Benefitting:** 83 **Award Amount:** \$249,719

To design and host joint tribal trainings and workshops to build skills and gather information needed to coordinate and implement Tribal adaptation planning processes

Tribe: Federated Indians of Graton Rancheria, California

Title: Educational Training about Climate Change

Project Description **Estimated Tribes Benefitting:** 6 **Award Amount:** \$34,032

To provide two inter-tribal education training workshops regarding Climate Adaptation to Tribal Nations within Sonoma, Marin, Mendocino and Lake Counties, California

Tribe: Native Village of Elim

Title: Design and Host Training for Tribal Adaptation Planning

Project Description **Estimated Tribes Benefitting:** 6 **Award Amount:** \$108,920

To design and host a series of tribal in-person and web-based workshops for Tribal adaptation planning in the Seward Peninsula, Alaska

Tribe: Nooksack Indian Tribe

Title: Developing and Presenting Training Workshops and a Webinar on the Nooksack Indian Tribe's Climate Change Project

Project Description **Estimated Tribes Benefitting:** 15 **Award Amount:** \$32,652

To provide workshops and a webinar to share our climate change program knowledge with multiple Tribes and entities with similar treaty resource protection issues

Tribe: Passamaquoddy Tribe - Pleasant Point

Title: Steps in Adapting Maine's Wabanaki Culture and Economy to the Changing Climate - Connecting 5 Wabanaki Tribes in a Climate Adaptation Learning Process

Project Description **Estimated Tribes Benefitting:** 5 **Award Amount:** \$214,267

To work with regional partners to incorporate Tribal Ecological Knowledge into the process of climate action planning by sharing information among the Wabanaki Tribes and climate experts in various forums



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
FY 2015 Tribal Cooperative
Landscape Conservation Program Funding

Category 1: Training & Workshops

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

Category 1 Number of Awards: 7

Category 1 Total Funding: \$823,407

Tribe: Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin

Title: Wisconsin Tribal & University Partnership for Climate Change Adaptation Workshops

Project Description

Estimated Tribes Benefitting: 9

Award Amount: \$104,354

To develop educational online trainings, a resource of online educational opportunities, and to coordinate with Wisconsin state agencies to prioritize Traditional Ecological Knowledge and state Tribal expertise on climate impacts

Tribe: The United South and Eastern Tribes, Inc. (USET)

Title: Climate Change Workshop Project

Project Description

Estimated Tribes Benefitting: 26

Award Amount: \$79,463

To hold a Tribal Climate Change workshop for Eastern Tribes to discuss climate change impacts, vulnerabilities, policies, plans, and strategies to apply Traditional Ecological Knowledge and effectively engage in regional and national climate change forums



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
FY 2015 Tribal Cooperative
Landscape Conservation Program Funding

Category 2: Climate Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, and Data Analysis

Category 2 Number of Awards: 39

Category 2 Total Funding: \$6,210,607

Tribe: Big Valley Band of Pomo Indians of the Big Valley Rancheria, California

Title: Water Resource Climate Adaptation Plan on Adobe Creek for the Recovery of Hitch Lavinia exilicauda chi in Clear Lake, Lake County, California

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$218,300
To develop a plan to sustain climate change impacts on the Clear Lake ecosystem

Tribe: Blue Lake Rancheria, California

Title: Climate Adaptation Plan with Vulnerability Assessments

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$186,602
To prepare a comprehensive Tribal Government Climate Adaptation Plan with vulnerability assessments covering all programs within BLR

Tribe: Campo Band of Diegueno Mission Indians of the Campo Indian Reservation, California

Title: Climate Change Adaptation and Planning

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$248,488
To develop capacity to identify climate change impacts and adaptation strategies to make the tribe more climate resilient and to better prepared for climate change impacts

Tribe: Citizen Potawatomi Nation (Oklahoma)

Title: Climate Adaptation Planning

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$73,416
To develop a tribal climate adaptation plan to include scientific data regarding climate change within the reservation boundaries

Tribe: Coeur D'Alene Tribe

Title: Coeur d' Alene Tribe Climate Change Impact Assessment Project

Project Description **Estimated Tribes Benefitting:** 6 **Award Amount:** \$90,000
To develop a vulnerability assessment report regarding climate change impacts on the Coeur d' Alene Reservation

Tribe: Confederated Salish & Kootenai Tribes of the Flathead Reservation

Title: Tribal Collaboration to Address Climate Change in the Crown of the Continent

Project Description **Estimated Tribes Benefitting:** 2 **Award Amount:** \$249,081
To build climate resilience within reservation lands to better understand climate change impacts to plan and develop actions to address these threats



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
FY 2015 Tribal Cooperative
Landscape Conservation Program Funding

Category 2: Climate Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, and Data Analysis

Category 2 Number of Awards: 39

Category 2 Total Funding: \$6,210,607

Tribe: Confederated Tribes and Bands of the Yakama Nation

Title: Climate Adaptation Plan: Technical Analysis and Planning for the Future

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$141,686

To develop a meaningful and effective Climate Adaptation Plan in collaboration with federal, state and other relevant community members that will honor, protect and restore the interests and resources of the Yakama Nation

Tribe: Confederated Tribes of the Colville Reservation

Title: Climate Change Vulnerability Assessments and Data Analysis

Project Description **Estimated Tribes Benefitting:** 3 **Award Amount:** \$197,139

To compile, format, and analyze natural ecosystem data to develop climate change plans

Tribe: Confederated Tribes of the Umatilla Indian Reservation

Title: CTUIR Climate Change Adaptation Action Plan & Implementation Strategy

Project Description **Estimated Tribes Benefitting:** 5 **Award Amount:** \$250,000

To prioritize and plan adaptation actions to be prepared for climate change impacts in the future

Tribe: Confederated Tribes of the Warm Springs Reservation of Oregon

Title: Vulnerability Assessment for the Warm Springs Reservation

Project Description **Estimated Tribes Benefitting:** 4 **Award Amount:** \$249,951

To assess the vulnerability of vegetated ecosystems on the reservation to climate change

Tribe: Dry Creek Rancheria Band of Pomo Indians, California

Title: Dry Creek Rancheria Climate Adaptation Plan

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$174,616

To develop a plan to adapt to climate change by efficiently managing water resources, improving wildlife habitat, and adaptively managing projects

Tribe: Elem Indian Colony of Pomo Indians of the Sulphur Bank Rancheria, California

Title: Data Collection for Tribal/Regional Climate Adaptation Planning

Project Description **Estimated Tribes Benefitting:** 6 **Award Amount:** \$108,532

To improve meteorological data collection, stream flow/surface water quality data, and educational outreach to develop a Climate Change Adaptation Plan



United States Department of the Interior BUREAU OF INDIAN AFFAIRS FY 2015 Tribal Cooperative Landscape Conservation Program Funding

Category 2: Climate Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, and Data Analysis

Category 2 Number of Awards: 39

Category 2 Total Funding: \$6,210,607

Tribe: Fort Belknap Indian Community

Title: Fort Belknap FY2015 Climate Adaptation Planning Proposal

Project Description

Estimated Tribes Benefitting: 2

Award Amount: \$137,926

To protect the health, security, and general welfare of the Fort Belknap Indian Community through the coordination, development, and planning of a responsive Tribal Climate Change Adaptation Plan

Tribe: Gila River Indian Community of the Gila River Indian Reservation, Arizona

Title: Gila River Indian Community Climate Adaptation Project

Project Description

Estimated Tribes Benefitting: 21

Award Amount: \$134,781

To develop and implement a climate adaptation plan for the community

Tribe: Inter Tribal Buffalo Council

Title: Identifying the Vulnerability of Tribal Buffalo Programs to Climate Change

Project Description

Estimated Tribes Benefitting: 58

Award Amount: \$60,380

To develop buffalo vulnerability assessments for the 58 Member Tribes with regards to climate change

Tribe: Karuk Tribe

Title: Karuk Tribe Climate Vulnerability Assessment

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$72,200

To assess vulnerabilities resulting from increased fire intensity and severity within Karuk aboriginal territory in the face of climate change

Tribe: Kewa Pueblo (Santa Domingo Pueblo)

Title: Santo Domingo Tribal Climate Change Adaptation Planning Initiative

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$230,550

To develop a Climate Change Adaptation Plan consisting of analysis of climate change scenarios, vulnerability assessment, and adaptation planning to understand how these changes will impact tribal resources

Tribe: Keweenaw Bay Indian Community, Michigan

Title: KBIC Climate Adaptation Planning Initiative

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$175,518

To develop a plan to identify vulnerabilities and adapt to climate change



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
FY 2015 Tribal Cooperative
Landscape Conservation Program Funding

Category 2: Climate Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, and Data Analysis

Category 2 Number of Awards: 39

Category 2 Total Funding: \$6,210,607

Tribe: Metlakatla Indian Community, Annette Island Reserve

Title: Annette Islands Reserve 2015 Proposal for the Metlakatla Indian Community

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$85,000

To perform a survey of the waters and lands of Annette Islands Reserve to determine climate change impacts, specifically, impacts on the shoreline from storm damage, migration patterns of salmon, and the increase of paralytic shellfish toxin on local shellfish

Tribe: Nisqually Indian Tribe

Title: Climate Adaptation Planning for the Mashel Watershed

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$230,000

To assess the potential for a change in land management to mitigate the projected effects of climate change

Tribe: Nome Eskimo Community

Title: Nome Tribal Climate Adaptation Plan

Project Description **Estimated Tribes Benefitting:** 4 **Award Amount:** \$202,808

To develop a Nome Tribal Climate Adaptation Plan to ensure tribal members are prepared to address the effects of climate change

Tribe: Nooksack Indian Tribe

Title: Impacts Analysis, Vulnerability Assessment, and Adaptation Plan Applying a Climate Change Tool
Developed as a Pilot Project to the Nooksack River Watershed

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$250,000

To conduct impacts analysis of climate changes to produce a vulnerability assessment and an adaptation plan for effective watershed restoration

Tribe: Ohkay Owingeh

Title: Developing a Vulnerability Assessment and Planning Framework to Address the Impacts of Climate Change on Ohkay Owingeh's Riparian Resources

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$92,521

To develop a vulnerability assessment and a climate change riparian adaptation plan that prioritizes future actions and ensures the long-term viability of riparian ecosystems



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
FY 2015 Tribal Cooperative
Landscape Conservation Program Funding

Category 2: Climate Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, and Data Analysis

Category 2 Number of Awards: 39

Category 2 Total Funding: \$6,210,607

Tribe: Port Gamble S'Klallam Tribe

Title: Climate Change Impact and Multi-Tribal Government Adaptation Planning to Protect Hood Canal Fish and Wildlife Resources

Project Description **Estimated Tribes Benefitting:** 23 **Award Amount:** \$125,000

To finalize climate change impacts and vulnerability assessments by conducting statistical downscaling and regional climate simulations to develop higher resolution for more accurate climate change projections to develop adaptation plans

Tribe: Red Lake Band of Chippewa Indians, Minnesota

Title: Regional Tribal Climate Change Monitoring Strategy Development

Project Description **Estimated Tribes Benefitting:** 13 **Award Amount:** \$160,000

To provide a platform for collaboration within the Midwest region to develop a Regional Climate Change Monitoring Strategy (Regional Strategy)

Tribe: Sauk-Suiattle Indian Tribe

Title: Climate Change Vulnerability Assessment of the Sauk Watershed

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$237,681

To use methodologies developed for snowshoe hare to implement vulnerability assessments for a broader array of important tribal wildlife species and to develop a framework to assess the vulnerability of important fish and plant species

Tribe: Sault Ste. Marie Tribe of Chippewa Indians, Michigan

Title: Implementing Comprehensive Wildlife Vulnerability Assessments and Developing Fish and Medicinal Plant Assessment Frameworks for the 1836 Ceded Territory

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$87,539

To build departmental capacity to assess species vulnerability to changing climatic conditions and to develop adaptation plans

Tribe: Scotts Valley Band of Pomo Indians of California

Title: Red Hills Resource Vulnerability and Adaptation Planning Initiative

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$188,008

To develop an adaptation climate change plan to understand available resources, the environmental health of those resources, and the carrying capacity of the land



United States Department of the Interior
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FY 2015 Tribal Cooperative
Landscape Conservation Program Funding

Category 2: Climate Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, and Data Analysis

Category 2 Number of Awards: 39

Category 2 Total Funding: \$6,210,607

Tribe: Shoshone-Bannock Tribes of the Fort Hall Reservation

Title: Climate Change Vulnerability Assessment and Adaptation Plan for the Fort Hall Reservation

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$127,088

To assess wildfire risk and plan for flood management to develop a sound climate change adaptation plan

Tribe: Stillaguamish Tribe of Indians of Washington

Title: Climate Change Adaptation Planning for Future Generations

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$166,745

To increase the resiliency of tribally important fish and wildlife species and their habitats by developing a climate change adaptation plan

Tribe: The Chickasaw Nation

Title: Tribal Planning for Drought Vulnerability Assessments

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$78,526

To prepare the Chickasaw Nation to adapt to the impacts of drought by developing a Regional Climate Change Adaptation Plan

Tribe: The United South and Eastern Tribes, Inc. (USET)

Title: The Southeastern Tribal Climate Vulnerability Assessment Program

Project Description **Estimated Tribes Benefitting:** 3 **Award Amount:** \$143,261

To develop a climate adaptation plan to conserve natural and cultural resources

Tribe: Tulalip Tribes of Washington

Title: GIS-based Data Visualization and Scenario System to Strengthen Capacity for Tribal Climate Adaptation Planning

Project Description **Estimated Tribes Benefitting:** 4 **Award Amount:** \$248,241

To develop a climate change adaptation planning system composed by a GIS-based data visualization system, iterative mapping and analysis of vulnerabilities, and adaptive planning and decision making tools

Tribe: Upper Snake River Tribes (USRT) Foundation

Title: Climate Change Vulnerability Assessment of the Aquatic, Terrestrial, and Tribal Enterprise Resources in the Upper Snake River Watershed of Idaho, Nevada, and Oregon

Project Description **Estimated Tribes Benefitting:** 4 **Award Amount:** \$48,386

To assess vulnerability to climate change including sensitivity, exposure, and adaptive capacity



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
FY 2015 Tribal Cooperative
Landscape Conservation Program Funding

Category 2: Climate Adaptation Planning

To Develop Climate Adaptation Plans, Vulnerability Assessments, and Data Analysis

Category 2 Number of Awards: 39

Category 2 Total Funding: \$6,210,607

Tribe: Ute Mountain Ute Tribe

Title: Climate Change Vulnerability Assessment-The Núchíú Perspective

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$169,680

To assess key climatological and social-ecological vulnerabilities, risks, and response capacities to be incorporated into a Climate Change Adaptation Plan

Tribe: Walker River Paiute Tribe of the Walker River Reservation, Nevada

Title: Climate Change Action Plan

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$116,078

To develop a climate change action plan to identify and facilitate the integration and application of traditional ecological knowledge and natural scientific data

Tribe: Washoe Tribe of Nevada & California (Carson Colony, Dresslerville Colony, Woodfords Community, Stewart Community, and Washoe Ranches)

Title: Washoe Tribe Climate Change Adaptation Plan

Project Description

Estimated Tribes Benefitting: 4

Award Amount: \$250,000

To evaluate the impacts of climate change on the Tribe's water resources, wildlife and vegetation, agriculture, forest and rangelands, and human health to develop a Climate Change Adaptation Plan to prepare for and respond to these impacts

Tribe: Winnebago Tribe of Nebraska

Title: Reservation-Wide Climate Change Vulnerability Assessment

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$125,334

To conduct a Reservation-Wide Climate Change Vulnerability Assessment

Tribe: Yurok Tribe of the Yurok Reservation, California

Title: Vulnerability Assessment for Yurok Mountain Meadows

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$79,546

To prepare a climate change vulnerability assessment for mountain meadows



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

FY 2015 Tribal Cooperative Landscape Conservation Program Funding

Category 3: Travel (Climate)

Travel Support for Climate Adaptation Planning Training and Cooperative Efforts

Category 3 Number of Awards: 28

Category 3 Total Funding: \$619,940

Tribe: Affiliated Tribes of Northwest Indians (ATNI)		
Estimated Tribes Benefitting:	57	Award Amount: \$13,156
Tribe: Aroostook Band of Micmacs		
Estimated Tribes Benefitting:	1	Award Amount: \$23,129
Tribe: Chickaloon Native Village		
Estimated Tribes Benefitting:	1	Award Amount: \$9,777
Tribe: Confederated Tribes and Bands of the Yakama Nation		
Estimated Tribes Benefitting:	1	Award Amount: \$15,000
Tribe: Confederated Tribes of the Grand Ronde Community of Oregon		
Estimated Tribes Benefitting:	27	Award Amount: \$5,841
Tribe: Cow Creek Band of Umpqua Tribe of Indians		
Estimated Tribes Benefitting:	1	Award Amount: \$16,204
Tribe: Delaware Nation, Oklahoma		
Estimated Tribes Benefitting:	1	Award Amount: \$8,253
Tribe: Kawerak, Inc.		
Estimated Tribes Benefitting:	20	Award Amount: \$72,129
Tribe: Maniilaq Association		
Estimated Tribes Benefitting:	12	Award Amount: \$26,400
Tribe: Metlakatla Indian Community, Annette Island Reserve		
Estimated Tribes Benefitting:	1	Award Amount: \$14,507
Tribe: Native Village of Elim		
Estimated Tribes Benefitting:	6	Award Amount: \$167,925
Tribe: Native Village of Shishmaref		
Estimated Tribes Benefitting:	1	Award Amount: \$4,120



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

FY 2015 Tribal Cooperative Landscape Conservation Program Funding

Category 3: Travel (Climate)

Travel Support for Climate Adaptation Planning Training and Cooperative Efforts

Category 3 Number of Awards: 28

Category 3 Total Funding: \$619,940

Tribe: Navajo Nation, Arizona, New Mexico & Utah		
Estimated Tribes Benefitting:	1	Award Amount: \$10,000
Tribe: Nez Perce Tribe		
Estimated Tribes Benefitting:	1	Award Amount: \$10,000
Tribe: Nooksack Indian Tribe		
Estimated Tribes Benefitting:	1	Award Amount: \$14,320
Tribe: Northern Cheyenne Tribe		
Estimated Tribes Benefitting:	1	Award Amount: \$43,000
Tribe: Otoe-Missouria Tribe of Indians, Oklahoma		
Estimated Tribes Benefitting:	1	Award Amount: \$15,600
Tribe: Pit River Tribe, California		
Estimated Tribes Benefitting:	1	Award Amount: \$5,000
Tribe: Pueblo of Jemez		
Estimated Tribes Benefitting:	1	Award Amount: \$20,000
Tribe: Pueblo of Taos		
Estimated Tribes Benefitting:	1	Award Amount: \$2,608
Tribe: The Quapaw Tribe of Indians		
Estimated Tribes Benefitting:	1	Award Amount: \$6,391
Tribe: Santa Ynez Band of Chumash Mission Indians of the Santa Ynez Reservation, California		
Estimated Tribes Benefitting:	1	Award Amount: \$9,026
Tribe: Sauk-Suiattle Indian Tribe		
Estimated Tribes Benefitting:	1	Award Amount: \$23,910
Tribe: Saint Regis Mohawk Tribe		
Estimated Tribes Benefitting:	1	Award Amount: \$28,800



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
FY 2015 Tribal Cooperative
Landscape Conservation Program Funding

Category 3: Travel (Climate)

Travel Support for Climate Adaptation Planning Training and Cooperative Efforts

Category 3 Number of Awards: 28

Category 3 Total Funding: \$619,940

Tribe: Swinomish Indians of the Swinomish Reservation of Washington		
Estimated Tribes Benefitting:	1	Award Amount: \$12,318
Tribe: The United South and Eastern Tribes, Inc. (USET)		
Estimated Tribes Benefitting:	26	Award Amount: \$14,771
Tribe: Upper Skagit Indian Tribe		
Estimated Tribes Benefitting:	1	Award Amount: \$10,355
Tribe: Yurok Tribe of the Yurok Reservation, California		
Estimated Tribes Benefitting:	1	Award Amount: \$17,400



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
FY 2015 Tribal Cooperative
Landscape Conservation Program Funding

Category 4: Ocean and Coastal Management Planning

To Develop Ocean and Coastal Management Plans for Marine and Coastal Resources

Category 4 Number of Awards: 23

Category 4 Total Funding: \$3,837,454

Tribe: Aleutian Pribilof Islands Association

Title: Foundations for Coastal Resilience Planning in Western Alaska: A Two-way Knowledge Exchange

Project Description **Estimated Tribes Benefitting:** 54 **Award Amount:** \$249,999

To leverage efforts of all three Landscape Conservation Cooperatives (LCCs) in Western Alaska to share scientific data and information products and exchange knowledge with coastal tribal communities in the 1,200 miles of the Aleutian and Pribilof Islands

Tribe: Bristol Bay Native Association (BBNA)

Title: Practical Methods for Bristol Bay Villages to Document and Plan for Climate Change

Project Description **Estimated Tribes Benefitting:** 12 **Award Amount:** \$114,661

To advance community-based monitoring of coastal erosion and flooding by federally recognized tribes in the Bristol Bay Region of Southwest Alaska through interactive training on erosion monitoring strategies

Tribe: Chevak Native Village

Title: Measuring and Monitoring the Impacts of Climate Change on the outer Yukon-Kuskokwim Delta, Alaska: Ocean and Coastal Management Planning for Residents and Wetlands

Project Description **Estimated Tribes Benefitting:** 2 **Award Amount:** \$245,170

To identify specific coastal sites to monitor for climate impacts within the traditional use area of the Kashunamit people

Tribe: Chugach Regional Resources Commission

Title: Monitoring for Ocean Acidification near Coastal Villages and Communities in South-Central Alaska: Building Capacity and Assessing Vulnerability

Project Description **Estimated Tribes Benefitting:** 8 **Award Amount:** \$206,834

To expand the U.S. Integrated Ocean Observing System (IOOS) evaluation of ocean acidification to south central Alaska native coastal tribes in and near member villages of the Chugach Regional Resources Commission (CRRC)

Tribe: Confederated Tribes of the Grand Ronde Community of Oregon

Title: Ocean and Coastal Management Planning Funding Proposal

Project Description **Estimated Tribes Benefitting:** 27 **Award Amount:** \$38,945

To conduct a fisheries inventory and vulnerability assessment, coordination, and collaborative planning



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
FY 2015 Tribal Cooperative
Landscape Conservation Program Funding

Category 4: Ocean and Coastal Management Planning

To Develop Ocean and Coastal Management Plans for Marine and Coastal Resources

Category 4 Number of Awards: 23

Category 4 Total Funding: \$3,837,454

Tribe: Confederated Tribes of Siletz Indians of Oregon

Title: Siletz Tribal Shellfish Harvest Management and Climate Change Plan

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$250,000

To establish partnerships with the Oregon Dept. of Fish and Wildlife and SEACOR managers to improve the collective understanding of distribution, abundance, and habitat requirements for commonly harvested clams found in Oregon coasts and estuaries

Tribe: Hoh Indian Tribe

Title: Joint Effort to Implement Monitoring Protocols for Critical Forage Fish Indicator Species

Project Description

Estimated Tribes Benefitting: 3

Award Amount: \$56,013

To implement monitoring protocols for critical forage fish indicator species (night smelt and surf smelt) in the Quinalt Treaty Area Tribes' collective Usual and Accustomed Fishing Areas and Stations

Tribe: Lummi Tribe of the Lummi Reservation

Title: Linking Physical Processes and Models to Changes in Habitat and Biological Outcomes in the Estuary and Nearshore Marine Environment

Project Description

Estimated Tribes Benefitting: 2

Award Amount: \$229,627

To resolve a knowledge gap in specific biological responses and outcomes to climate change for adaptive resource management planning to guide targeted mitigation actions

Tribe: Makah Indian Tribe of the Makah Indian Reservation

Title: Makah Climate Change and Ocean Planning Project

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$249,851

To conduct a comprehensive intertidal habitat assessment to assess vulnerability to sea level rise and ocean acidification, to develop a coastal and marine spatial plan for tribal areas, and to improve decisions and mitigation in response to an oil spill

Tribe: Point No Point Treaty Council

Title: Climate Change Ocean and Coastal Management Planning

Project Description

Estimated Tribes Benefitting: 2

Award Amount: \$119,054

To assess the climate change vulnerabilities of finfish, shellfish and wildlife resources, and to assess any possible impacts to the future management of shared Treaty-protected resources among member tribes in coordination with regional partners



United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
FY 2015 Tribal Cooperative
Landscape Conservation Program Funding

Category 4: Ocean and Coastal Management Planning

To Develop Ocean and Coastal Management Plans for Marine and Coastal Resources

Category 4 Number of Awards: 23

Category 4 Total Funding: \$3,837,454

Tribe: Port Gamble S'Klallam Tribe

Title: Ocean and Coastal Management Planning

Project Description **Estimated Tribes Benefitting:** 19 **Award Amount:** \$125,000

To revise monitoring to support the identification of climate impact indicators, to manage tipping points, and to enable managers to consider climate change in implementation projects using revised, high resolution models

Tribe: Qawalangin Tribe of Unalaska

Title: A Regional Approach to Ocean Management and Coastal Resiliency Development

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$82,000

To collaborate with environmental partners to facilitate and improve collection and dissemination of information on ocean management and coastal resiliency

Tribe: Quileute Tribe of the Quileute Reservation

Title: Ocean and Coastal Management Planning

Project Description **Estimated Tribes Benefitting:** 3 **Award Amount:** \$40,416

To participate in collaborative planning efforts like the "West Coast MSP Partnership" and fund a joint effort to identify and implement monitoring protocols for critical indicator species (forage fish) within the area of tribal treaty fishing rights

Tribe: Quinault Indian Nation (for the QTA Tribes)

Title: Assessing Infrastructure Vulnerability of Three Coastal Treaty Tribes

Project Description **Estimated Tribes Benefitting:** 3 **Award Amount:** \$91,778

To assess the vulnerability of infrastructure and properties on the coast to flooding and sea level rise related to climate change for the Quinault Indian Nation in partnership with the Quileute and Hoh tribes

Tribe: Quinault Indian Nation

Title: Establishing Forage Fish Spawning Index Sites and Baseline Data for Monitoring

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$44,335

To establish monitoring index sites and baseline data for forage fish spawning on Quinault tribal beaches to help the tribe develop ocean and coastal management plans.

Title: Increasing Quinault Capacity to Participate in West Coast Ocean Planning

Project Description **Estimated Tribes Benefitting:** 1 **Award Amount:** \$162,045

To increase tribal capacity to develop ocean and coastal management plans and to participate in collaborative marine spatial planning in response to climate change



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Landscape Conservation Program Funding

Category 4: Ocean and Coastal Management Planning

To Develop Ocean and Coastal Management Plans for Marine and Coastal Resources

Category 4 Number of Awards: 23

Category 4 Total Funding: \$3,837,454

Tribe: Sherwood Valley Rancheria of Pomo Indians of California

Title: Monitoring and Management Plan for Coastal Resources

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$243,670

To develop a monitoring and management plan for tribal coastal resources that exist along the Northern Mendocino County, California Coastline

Tribe: Sitka Tribe of Alaska

Title: Cyst Mapping and Ocean Acidification Monitoring using the Southeast Alaska Tribal Toxin (SEATT) Partnership

Project Description

Estimated Tribes Benefitting: 11

Award Amount: \$206,229

To permit the Southeast Alaska Tribal Toxin (SEATT) Partnership to expand the monitoring program to include two new components: cyst bed mapping and ocean acidification

Tribe: Smith River Rancheria, California

Title: Ocean and Coastal Management Planning (Ocean for we-do)

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$222,630

To conduct a tribal marine spatial planning process and develop a Marine Plan for the Tolowa Dee-ni' of the Smith River Rancheria

Tribe: Squaxin Island Tribe of the Squaxin Island Reservation

Title: Assessment of Climate Change-Related Impacts and Adaptation Planning for Cultural and Subsistence Resources – Shellfish and Forage Fish

Project Description

Estimated Tribes Benefitting: 1

Award Amount: \$179,650

To assess the vulnerability of shellfish and forage fish on Squaxin Island due to sea level rise

Tribe: Tulalip Tribes of Washington

Title: Mapping Shoreline Biological Communities: furthering present understanding and informing future planning

Project Description

Estimated Tribes Benefitting: 4

Award Amount: \$249,368

To establish high resolution (species-level) information anchored to tidal elevation for nearshore ecological communities (clams, salmon habitat, eelgrass, etc.) to identify climate change impacts on treaty resources in the Whidbey Basin



United States Department of the Interior
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Landscape Conservation Program Funding

Category 4: Ocean and Coastal Management Planning

To Develop Ocean and Coastal Management Plans for Marine and Coastal Resources

Category 4 Number of Awards: 23

Category 4 Total Funding: \$3,837,454

Tribe: Yurok Tribe of the Yurok Reservation, California

Title: Coastal Resource Planning within the Klamath River Estuary

Project Description

Estimated Tribes Benefitting: 3

Award Amount: \$231,894

To integrate consideration of climate change effects on habitats and species into management plans and decisions that affect the Klamath estuary

Title: Coastal Resource Restoration Planning in Blue Creek, Klamath River

Project Description

Estimated Tribes Benefitting: 3

Award Amount: \$198,284

To plan potential restoration actions in the Blue Creek watershed to address climate impacts



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Category 5: Travel (Ocean and Coastal)

Travel Support for Ocean and Coastal Collaborative Planning Efforts

Category 5 Number of Awards: 7

Category 5 Total Funding: \$322,306

Tribe: Cher-Ae Heights Indian Community of the Trinidad Rancheria, California		
Estimated Tribes Benefitting:	1	Award Amount: \$14,850
Tribe: Hoh Indian Tribe		
Estimated Tribes Benefitting:	1	Award Amount: \$15,641
Tribe: Makah Indian Tribe of the Makah Indian Reservation		
Estimated Tribes Benefitting:	1	Award Amount: \$46,884
Tribe: Native Village of Kivalina		
Estimated Tribes Benefitting:	1	Award Amount: \$182,508
Tribe: Qawalangin Tribe of Unalaska		
Estimated Tribes Benefitting:	1	Award Amount: \$33,300
Tribe: Quileute Tribe of the Quileute Reservation		
Estimated Tribes Benefitting:	1	Award Amount: \$13,165
Tribe: Smith River Rancheria, California		
Estimated Tribes Benefitting:	1	Award Amount: \$15,958