

**Pacific Northwest Tribal Climate Change Project
DRAFT Meeting Notes – Wednesday, September 16, 2015**

Call Participants:

- Tiffany Allgood, Coeur d’Alene
- Mary Basballe, Puyallup Tribe
- Jezra Beaulieu, Nooksack Tribe
- Kenton Dick, Burns Paiute Tribe
- Dr. Jamie Donatuto, Swinomish Indian Tribal Community
- Nora Ferm, Cascadia Consulting
- Laura Gephart, Columbia River Intertribal Fish Commission
- Oliver Grah, Nooksack Tribe
- Dave Hatch, Confederated Tribes of Siletz Indians
- Scott Hauser, Upper Snakes River Tribes Foundation
- Lisa Hayward, Northwest CSC
- Rose High Bear, Wisdom of the Elders
- Joe Hostler, Yurok Tribe
- Ed Knight, Swinomish Indian Tribal Community
- Linda Kruger, USDA Forest Service PNW Research Station – Juneau Forestry Lab
- Frank Lake, USDA Forest Service Pacific Southwest Research Station
- Mei Lin Lantz, Willamette National Forest
- Kathy Lynn, University of Oregon
- Amelia Marchand, Colville Tribes
- Christopher Moreno, HDR
- Guillaume Mauger, UW Climate Impacts Group
- Ken Norton, Hoopa Valley Tribe
- Kathryn Norton-Smith, University of Oregon
- Rachel Novak, BIA Climate Science Coordinator
- Candace Penn, Squaxin Island Tribe
- Pah-tu Pitt, Confederated Tribes of Warm Springs
- Melissa Poe, Washington Sea Grant and Northwest Fisheries Science Center - NOAA Fisheries
- Tom Schlosser, Tribal Attorney
- Cindy Schmidt, NASA Ames Research Center
- Cheryl Shippentower, Confederated Tribes of the Umatilla Indian Reservation
- Jonalee Squeochs, Yakama Indian Nation
- Carson Viles, University of Oregon
- Paul Williams, Suquamish Tribe
- Sue Wotkyns, Institute for Tribal Environmental Professionals
- Paul Williams, Suquamish Tribe

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Upcoming PNW Tribal Climate Change Network Conference Call Dates

- October 21, 2015
 - November 18, 2015
 - December 16, 2015
- Call-in Information:***
- **Call Time: 10:00 am Pacific**
 - **Call-in #: 1-888-844-9904**
 - **Pass code: 5064716**

MEETING NOTES

NASA Applied Remote Sensing Training

Cynthia Schmidt, NASA Ames Research Center

NASA Ames Research Center is conducting trainings specifically for tribes. This project is funded under NASA Headquarters Capacity Building Programs. Their primary purpose is to develop materials through webinars and in-person workshops to build capacity in organizations about how to use NASA remote sensing data and technology, as well as other resources. These workshops are focused on air quality, water resources and land management. Cindy spoke in greater detail about land management, her focus. There are two sub-areas of training under land management: fire management and natural resource management. Last year, they conducted webinars on wildfire management and conservation issues. There will be a follow-up workshop held in early October; this will be a three day in-person workshop. Cindy is particularly interested in engaging with tribal organizations. NASA is working with the Navajo Nation and will host a webinar on drought monitoring in March of 2016. Webinars are free, live streamed, and recorded for later viewing.

NASA Applied Remote Sensing Training Team will be advertising future webinars, and is actively looking for opportunities to work with tribes to create new webinars. If you have any interest in a specific area for training, please contact Cindy at cynthia.l.schmidt@nasa.gov. These workshops are designed for people with minimal experience working with satellite imagery and GIS. The NASA Ames Research Center hopes to encourage new people to utilize this technology.

Tribal access to and use of climate data: Swinomish Tribal Climate Change Initiative

Ed Knight and Jamie Donatuto, Swinomish Indian Tribal Community

The Swinomish Climate Change Initiative has undertaken a variety of projects to evaluate, assess and analyze climate data. Their initial project was a two-year impact assessment and action plan that started in 2008. Swinomish partnered with the Climate Impacts Group (CIG) at University of Washington and found that even with in-house expertise, partnership is very valuable in locating, evaluating and vetting data. The first year of their project was an impact assessment. The second year took that information and developed an action plan. Since starting this project, the Skagit Climate Science Consortium has approached Swinomish to work with them.

One challenge for the project was taking global data and translating it into local trends (downscaling). CIG downscaled temperature increase and sea level rise data for the Puget Sound and Washington Coast. The Swinomish Climate Change Initiative developed sea level rise and wildfire risk maps for their reservation. Swinomish has generated data themselves, and alongside CIG, to create new projections. Jamie and Ed noted that it is possible to downscale data, but this requires collaboration with other organizations. Recently, the Initiative has focused on sea level rise and storm surge impacts on beaches (clam resources). Using sea level projects, the project team modeled potential impacts to shellfish gathering at traditional sites/beaches. Currently, they are generating local data on sea level rise—they are working with USGS to model storm surge and sea level rise on the reservation. Starting with global data, coupling it with regional data, and finally adding local data generates more specific and localized data for Swinomish. Finally, Swinomish has developed a set of community health indicators to describe how community members feel their health will be impacted by climate. Community health indicators provide direction for the project moving forward, as they identify concerns and priorities within the community.

Following the presentation, the group discussed how to identify appropriate non-tribal research partners. Jamie noted that universities and agencies are very interested in working with tribes. Given that, she advocated that tribes do research before reaching out to a particular group. Tribes should make sure that any potential partner has priorities that are compatible with theirs; tribes should be careful that partners are the type of people that they want to work with. Jamie also discussed the importance of data-sharing agreements to ensure that no one intentionally or unintentionally abuses the rights of the community to their data and research. Ed advocated that tribes look locally and regionally for science resources, as scientists in the region are more likely to be specialists in local lands and issues.

Guillaume asked how the Swinomish team has found balance between looking outward for science and looking inward toward capacity building and community priorities. Ed advocated for sharing results across research scales, as local data informs global data, and vice versa. He also stated that in terms of capacity building, funding is always an issue. There's more and more funding becoming available, but also more competitive. There are alternatives about how to build internal capacity, as well. Jamie noted that there is always a balance between downscaling data that's available and not re-inventing the wheel, and ensuring what one does is relevant and important to the community. Data is only useful if it's a priority to the community.

Joe asked about ownership of tribal information and data-sharing agreements. Jamie elaborated, if researchers are doing any interviews or interaction with community members, it is wise to ensure who the IRB is—find a tribal IRB—because often university IRBs do not offer community protection, only individual protection. Creating a data-sharing agreement from the outset is important. Jamie offered to share elements of Swinomish's data-sharing agreement with others to serve as a model. She also stated that outside researchers need to understand that if they're generating data that could be harmful to the community, or relies on the community, it has to be approved by the community. Jamie mentioned that the Northwest Indian College has developed an Institutional Review Board process that may serve as a model for others. Click [here](#) to review the [NWIC IRB](#). Another resource is the Guidelines for Considering Traditional Knowledges in Climate Change initiatives, available [here](#).

Wisdom of the Elders Climate Documentary and Radio Series (Rose High Bear, Wisdom of the Elders)

Wisdom of the Elders is currently working on a climate documentary detailing impacts from across the Northwest. Rose High Bear announced that Wisdom of the Elders have received funding from the National Endowment of the Arts to document climate impacts facing Oregon Tribes. They have formed the Native Climate Council in Portland to discuss what climate issues people are facing, and identify good candidates to be in the documentary. This is a two-year project, and they are moving slowly to identify strong participants. The next meeting for this council is Monday September 21st. Wisdom of the Elders is also planning on training emerging Native filmmakers to document climate impacts facing their tribes. This academy will be in 2016 and 2017—following the academy there are plans to host a Native film festival. For more information, contact Rose High Bear (rosehb@wisdomoftheelders.org).

Preliminary discussion of 2015 Wildfire Season and Tribal Impacts

Kathy initiated a discussion about wildfire impacts, in hopes that it could inform the agenda for October's call. Several participants contributed ideas:

- Amelia shared some of the experiences that the Confederated Tribes of the Colville Reservation (CCT) have had a result of the 2015 fire season. She noted that impacts to tribal communities are often overlooked when assessing broad-scale fire damage. Amelia noted that CCT and many other tribes invest significant resources into habitat restoration, and that severe wildfires have the

potential to undo habitat restoration. The costs of wildfire on tribal restoration projects should also be accounted for.

- Frank Lake noted several categories that could be helpful in investigating wildfire impacts on tribes. He noted the distinction between impacts to natural resources with cultural values versus impacts to infrastructure, and forestry resources of economic importance. There is often a difference in how wildfires impact cultural resources and economic resources.
- Frank also described the differences between impacts resulting from how wildfire is managed and impacts from biological effects of the fire. He offered that viewing impacts as tangible and intangible might provide a beneficial understanding. Finally, he noted that wildfire can bring benefits on traditional foods and basketry materials; impacts to community should be viewed in short and long-term in order to understand the multitude of impacts, and presence of benefits.
- Tiffany asked about how preventative management actions, including hazardous fuels reduction have affected the outcomes from this fire season, and whether other forest/land management practices have impacted wildfire severity. Amelia shared the following news story that examines forest restoration and The North Star/Tunk Block Fires in Washington State:
<http://inciweb.nwcg.gov/incident/article/4524/29508/>

Kathy will work on developing the agenda based on questions asked during this discussion for the October 21st call. If you have questions or other information you'd like to see covered in the discussion of the 2015 fire season, please email kathy@uoregon.edu.

Opportunity for Native Youth—EarthEcho International Conducting Short Films on Ocean Acidification

In Fall 2015, EarthEcho will return to Puget Sound and Washington's Olympic Coast to examine ocean acidification, one of the fundamental challenges facing our water planet. The Pacific Northwest's marine waters are particularly vulnerable to ocean acidification (OA) due to the natural process of coastal upwelling, and thus provide a sneak peek into the future of this emerging global issue. This leg of filming will continue to explore the ongoing scientific research around ocean acidification but will focus on young people taking environmental action around OA. Integral to all EarthEcho Expeditions are stories of young people taking action. These stories, hosted by Philippe, serve as catalyst ideas for youth across the world to get involved and become change agents. This leg of the expedition will explore how the science of OA affects not only the marine ecology but also the Native American communities that are inextricably linked to the local bodies of water. Philippe will confer with youth leaders and environmental advocates within the Tribes to examine how the global threat of OA is not just a biological problem; it presents a social, economic, and cultural crisis for these coastal residents. For more information, please contact Paul Williams at: pwilliams@suquamish.nsn.us. Information about EarthEcho can be found at: <http://earthecho.org/news/EELEAP>

General Updates

Tribal Climate Change Project—Climate Scientist Database

Joe asked for an update on the project to make information on climate scientists and climate research in the region available to tribes. Kathy shared that TCCP is partnering with the North Pacific Landscape Conservation Cooperative this month to launch our efforts to develop an online database of scientist and science resources for tribes. This database will be searchable by category, geography, keyword etc. Our hope is to have a fairly strong database available by the end of this fall. We would also love to hear from scientific organizations and scientists who would like to be included on the list. As a part of the database, we would also like to add a section with information on data-sharing agreements and guidelines for protecting TKs.

Swinomish Climate Change Video Project

The Swinomish Indian Tribal Community is currently undertaking a video project to document tribal experiences with climate impacts. The project will culminate in a short video featuring testimony from Northwest coastal tribal members about climate impacts facing their communities. If you are interested in participating in this project, please contact Carson Viles at cviles@uoregon.edu, or (541) 606-9485.

U.S. Fish and Wildlife Service (Service) Tribal Wildlife Grants (TWG) - due October 30, 2015.

Damion Ciotti with the US Fish and Wildlife Service shared that Tribal Wildlife Grants are open and due October 30, 2015. The TWG program provides a competitive funding opportunity for Federally recognized Tribal governments to develop and implement projects for the benefit of fish and wildlife and their habitat. In 2015 there was a total of \$930,000 awarded to five Tribes for conservation projects in CA, NV, and the Klamath Basin. For more information on the TWG program please see the website [Tribal Wildlife Grant Program](#) and don't hesitate to contact Damion if you have questions or need assistance (530) 889-2327. Damion is the point of contact for Tribes in Region 8 (California, Nevada, and the Klamath Basin in Oregon) and is happy to work with tribes in the region to review grant proposals. Damion's email is damion_ciotti@fws.gov. Barb Behan (Barbara_Behan@fws.gov) is the point of contact for Region 1 (Oregon, Washington and Idaho.) Other regional contacts can be found here: <http://www.fws.gov/nativeamerican/contact.html>.

Announcements

U.S. Climate Resilience Toolkit - Arctic and Tribal Nations Resources. As part of the [Obama Administration's Climate Data Initiative](#), U.S. Secretary of the Interior Sally Jewell announced a new set of online climate data resources to help Arctic communities with climate change planning, adaptation and management. The new data sets, introduced today as part of an online Climate Resilience Toolkit, comprise more than 250 Arctic-related datasets and more than 40 maps, tools, and other resources designed to support climate-resilience efforts in the Arctic. The [U.S. Climate Resilience Toolkit](#) is a website developed by the National Oceanic and Atmospheric Administration (NOAA) and other Federal agencies that will enable decision-makers to take action. For more information: <https://www.doi.gov/pressreleases/obama-administration-unveils-new-climate-resilience-tools>

The BIA Climate Program FY15 Tribal Cooperative Landscape Conservation Program Youth Engagement and Management and Research Internship Awards. Funding of more than \$1M has been awarded to federally-recognized Tribes and Alaska Native Villages for Management and Research Internships and Youth Engagement for Fiscal Year (FY) 2015 proposals submitted in June 2015. <http://www.bia.gov/cs/groups/webteam/documents/document/idc1-031616.pdf>

Bi-Coastal Tribal Climate Initiative. The Affiliated Tribes of Northwest Indians (ATNI), Institute for Tribal Government (ITG), United South and Eastern Tribes (USET), the Department of the Interior's (DOI) Northwest Climate Science Center (NW CSC) and Bureau of Indian Affairs (BIA) today announced a collaborative effort to host a Bi-Coastal Tribal Leaders Summit, Tribal natural and cultural resource manager trainings, and policy workshops to support Tribal leaders, climate change coordinators, planners, and Tribal program managers to build skills, gather information, and develop Tribal policy needed to address climate change impacts. The Department of Interior's BIA is providing nearly \$250,000 of federal funds each to ATNI and USET and their federal agency and university partners for this collaborative project as part of BIA's FY 2015 Tribal Cooperative

Landscape Conservation Program.

NOAA Fisheries Climate Science Strategy. The NOAA Fisheries Climate Science Strategy (Strategy) is part of a proactive approach to increase the production, delivery, and use of climate-related information in fulfilling NOAA Fisheries mandates. The Strategy identifies seven objectives which will provide decision-makers with the information they need to reduce impacts and increase resilience in a changing climate. <http://www.st.nmfs.noaa.gov/ecosystems/climate/national-climate-strategy>

The Alaska Native Tribal Health Consortium announced the development of the new Local Environmental Observer Network Viewer. LEO is a network of local experts who share observations about unusual wildlife, environment, and climate events. These observations are based on local and traditional knowledge, and the experience of our network members. For more information, visit: www.leonetwork.org.

ITEP Tribal Climate Change Trainings: The Institute for Tribal Environmental Professionals offers [training](#) to tribal environmental professionals to build their capacity to address climate change issues. The courses are taught by instructional teams that include staff from ITEP, federal agencies, universities, and/or organizations, and most importantly, the tribes themselves, who share their expertise and experience. Sue Wotkyns mentioned that they are seeking tribes to host upcoming trainings. If you are interested, please contact Sue at Susan.Wotkyns@nau.edu.

Climate Solutions University now accepting applications for 2016

(Model Forest Policy Program). Climate Solutions University has helped over 30 communities create adaptation plans that are ready for implementation. Participants foster positive, sustainable connections between people, economic, and ecosystem health. Contact Recruitment Coordinator Josh Dye at josh@mfpp.org or 612-481-8059 to get started. <http://www.mfpp.org/>

Research Assistantships Available for Native Americans. <http://wildlife.org/research-assistantships-available-for-native-americans/>. The U.S. Forest Service (USFS), through partnership with The Wildlife Society, is sponsoring a research assistantship program for Native American students. This is the second year of the program, which will facilitate mentoring opportunities for USFS Research & Development (R&D) scientists with the students and promote student advancement and training for careers in natural resource and conservation-related fields. The USFS uses an ecological science-based approach to make informed decisions on the multiple-use management of the National Forests and Grasslands.

Upcoming Events

September 17, 2015. 10 am Pacific. Webinar: [Midwest and Great Plains Drought Webinar](#)

Each month, a state climatologist and a NOAA regional climatologist conduct public webinars to brief interested members of the public about ongoing and near-future changing climate conditions in the Great Plains and Midwestern United States. <http://drought.gov/drought/content/regional-programs/regional-drought-webinars>

September 21-23, 2015. Conference: [Tahoe Science Conference, Reno, NV.](#) Hosted by the Tahoe Science Consortium, University of Nevada, Reno and Desert Research Institute. The theme of the conference is "Tahoe Science in a Changing Climate." Lake Tahoe and many other high alpine lakes around the world are facing increasing stresses from changes in climate and precipitation. The 2015

Tahoe Science Conference will encourage creative dialogue among scientists, environmental managers, public officials and the general public about how to protect high alpine ecosystems under changing environmental and social climates.

<http://tahoescience.org/wp-content/uploads/2015/02/SavetheDateTSC15.pdf>

September 23, 2015. 9:30 - 11:30 am Pacific. Symposium: [Climate-Smart Conservation Case Studies in the Southern California Coast](#) San Diego, CA. You can also attend this event online (1 hour only): 9:30-10:30 AM Pacific. Hosted by the San Diego Management & Monitoring Program and the San Diego Climate Science Alliance. Symposium of Climate-Smart Conservation case studies from the coast of Southern California. <http://californialcc.org/events/climate-smart-conservation-case-studies-southern-california-coast>

September 23, 2015. 10 am Pacific. Webinar: [Drought-caused delay in nesting of Sonoran Desert birds and its facilitation of parasite- and predator-mediated variation in reproductive success.](#) For Sonoran Desert bird species, each day of nesting lost to drought increases a pair's exposure to higher nest depredation and brood parasitism across the remainder of the breeding season. Join us for a webinar with Point Blue Conservation Science.

Speaker: Chris McCreedy, Desert Ecologist Point Blue Conservation Science. For more information and to register, go to: https://nctc.adobeconnect.com/e2dhisq423e/event/event_info.html

September 22-24, 2015. Annual Intertribal Nursery Council meeting. Pendleton, OR

Hosted by the Confederated Tribes of the Umatilla Indian Reservation. This year's meeting will include two-and-a-half days of information sharing, technical presentations, tours, and nursery training lectures. A few spots are open for additional presentations; relevant topics include overviews or updates from tribal nurseries, restoration projects using native plants, native plant research projects, conservation education efforts, pollinator projects, reforestation, and traditional ecological knowledge related to native plants. Travel funds are available for those that qualify. For more information please contact Jeremy Pinto, jpinto@fs.fed.us, 208-883-2352.

September 24-25, 2015. [National Tribal Energy Summit](#). Washington, D.C. The National Summit supports the Obama Administration's ongoing commitment to assist tribal efforts to enhance energy security, increase community resiliency, and cultivate a sustainable energy future. The event will highlight challenges and showcase opportunities in the areas of: Science and technology, policy, and the regulatory environment; Community- and commercial-scale energy project development; Tribal education and workforce development; Federal procurement; and Energy sector supply chain participation. Representatives from federal agencies, state and tribal governments, tribal corporations, private industry, utilities, and academia will come together with scientists, educators, analysts, and experts in energy policy, regulation, financing, and technology-to-market to exchange ideas and explore solutions. [Download the postcard for more information.](#) For more information, [click here](#).

September 28-October 2, 2015. Training: [Climate-Smart Conservation with Scenario Planning](#) Fairbanks, AK. Offered by the USFWS National Conservation Training Center. This class is based on two guides: Climate-Smart Conservation: Putting Adaptation Principles into Practice and Considering Multiple Futures and Scenario Planning to Address Uncertainty in Natural Resource Conservation. <http://training.fws.gov/NCTCWeb/catalog/CourseDetail.aspx?CourseCodeLong=FWS-ALC3187>

September 30, 2015. 10 am Pacific. Webinar: [Evaluation and Monitoring Examples from the Field](#). National Adaptation Forum Webinar Series hosted by CAKEx.org. Join us to learn more about

examples of climate adaptation evaluation and monitoring efforts.

<http://www.nationaladaptationforum.org/other-adaptation-events/webinars/climate-adaptation-evaluation-and-monitoring>

October 1, 2015. Department of Energy Minorities in Energy Regional Climate Change Impacts Webinars - Midwest. DOE will host a series of webinars highlighting the impacts and opportunities of climate change and responses for minority communities, using information from Quadrennial Energy Review and the National Climate Assessment. Participants may [register at anytime](#) for the webinars, and the webinars will be recorded for those interested who aren't able to attend. The presenter for the Midwest webinar is Sara Pryor. For more information and to register, visit: <http://www.energy.gov/diversity/mie-webinar>.

October 6-8, 2015. Climate Adaptation for Coastal Communities. Oregon Coast Community College. Course modules will be taught by NOAA's Office for Coastal Management training staff and local partners. Registration is limited. For more information and to register, contact John Bragg, South Slough National Estuarine Research Reserve at john.bragg@state.or.us

October 13-14, 2015. Conference: 2015 NAFWS Pacific Region Conference. Polson, Montana. Native American Fish and Wildlife Society regional conference.

October 14-18, 2015. National Indian Education Association. Portland, Oregon.

October 18-23, 2015. National Congress of American Indians (NCAI) 72nd Annual Convention and Marketplace, San Diego, CA.

October 26-29, 2015. Climate Change Vulnerability Assessment. Santa Fe, NM. Offered by the USFWS National Conservation Training Center and sponsored in collaboration with the Bureau of Indian Affairs and the Choctaw Nation of Oklahoma. This course is designed to guide conservation and resource management practitioners in two essential elements in the design of climate adaptation plans: (1) identifying which species or habitats are likely to be most strongly affected by projected changes; and (2) understanding why these resources are likely to be vulnerable. For more information, contact April.Taylor@chickasaw.net

October 26-30, 2015. Conference: Alaska Tribal Conference on Environmental Management, Anchorage, AK. ATCEM, organized by the Alaska Native Tribal Health Consortium, is an annual gathering that brings together Tribes, Non-profits, and State and Federal organizations, for a week of environmental conversations. The discussions focus on finding and implementing solutions to address the unique environmental concerns facing Alaskan communities. <http://www.atcemak.com/>

October 27-29, 2015. 23rd Annual Tribal/EPA Region 9 Conference. Reno, NV. For the past 23 years, the annual conference has been an important opportunity for partnership and ongoing collaboration between Tribes, U.S. Environmental Protection Agency, and other federal, state, and local agencies. The annual conference provides the Tribes with valuable training, networking opportunities, and resource-sharing. Will include a climate change plenary session. <http://region9tribal-epaconference.com/>

November 2-3, 2015. Southwest Climate Summit: Bridging the Gap: Collaborative Science for Adaptive Management. Join the Southwest Climate Science Center (SW CSC) for a 2-day conference, November 2-3, 2015, that brings together scientists and managers to share emerging

climate science, Climate-Smart Conservation results, management and policy responses, and lessons learned across the Southwest. The conference, held in Sacramento, California, will feature presentations by leading thinkers, oral and poster sessions, and workshops designed to engage participants in building collaborative partnerships for resilient southwestern landscapes. For more information: <http://www.swcsc.arizona.edu/content/2015-southwest-climate-summit>

November 4-5, 2015. Sixth Annual Pacific Northwest Climate Science Conference, Coeur d'Alene, ID. The PNW Climate Science Conference annually brings together more than 250 researchers and practitioners from around the region to discuss scientific results, challenges, and solutions related to the impacts of climate on people, natural resources, and infrastructure in the Pacific Northwest. It is the region's premier opportunity for a cross-disciplinary exchange of knowledge and ideas about regional climate, climate impacts, and climate adaptation science and practice.

November 5, 2015. Department of Energy Minorities in Energy Regional Climate Change Impacts Webinars - Hawai'i and Pacific Islands.

DOE will host a series of webinars highlighting the impacts and opportunities of climate change and responses for minority communities, using information from Quadrennial Energy Review and the National Climate Assessment. Participants may register at anytime for the webinars, and the webinars will be recorded for those interested who aren't able to attend. The presenters for the Hawai'i and Pacific Islands webinar are Jo-Ann Leong & Victoria Keener. For more information and to register, visit: <http://www.energy.gov/diversity/mie-webinar>.

November 5-6, 2015. Native Waters on Arid Lands. Las Vegas, NV. Native Waters on Arid Lands project seeks to build capacity among tribal communities in the Great Basin and American Southwest to enhance climate resiliency of water resources and agriculture. <http://nativewaters-aridlands.com/>

November 9 - December 3, 2015. Online training: Climate Change Policy and Public Health. Offered by University of Wisconsin-Madison through Coursera. 4-8 hours/week. Explore current evidence linking climate change and public health while learning the fundamental co-benefits of climate change mitigation. Evaluate policies and interventions while gaining hands on experience communicating climate science and health to policy makers and the general public.

November 12-14, 2015. 2015 Rising Seas Summit, Cambridge, MA. The Association of Climate Change Officers (ACCO) has announced the 2015 Rising Seas Summit, which will be held in collaboration with the City of Boston and the Boston Green Ribbon Commission. It brings together professionals from national and local government, industry, academic institutions and environmental NGOs to highlight the interrelationships between sea level rise, climate change and extreme events. <http://www.risingseassummit.org/index.html>

December 3, 2015. Department of Energy Minorities in Energy Regional Climate Change Impacts Webinars - Great Plains. DOE will host a series of webinars highlighting the impacts and opportunities of climate change and responses for minority communities, using information from Quadrennial Energy Review and the National Climate Assessment. Participants may register at anytime for the webinars, and the webinars will be recorded for those interested who aren't able to attend. The presenter for the Great Plains webinar is Bull Bennett. For more information and to register, visit: <http://www.energy.gov/diversity/mie-webinar>.

January 7, 2016. Department of Energy Minorities in Energy Regional Climate Change Impacts Webinars - Southwest. DOE will host a series of webinars highlighting the impacts and opportunities of climate change and responses for minority communities, using information from Quadrennial Energy Review and the National Climate Assessment. Participants may [register at anytime](#) for the webinars, and the webinars will be recorded for those interested who aren't able to attend. The presenter for the Southwest webinar is Hilda Blanco. For more information and to register, visit: <http://www.energy.gov/diversity/mie-webinar>.

February 4, 2016. Department of Energy Minorities in Energy Regional Climate Change Impacts Webinars - Northwest. DOE will host a series of webinars highlighting the impacts and opportunities of climate change and responses for minority communities, using information from Quadrennial Energy Review and the National Climate Assessment. Participants may [register at anytime](#) for the webinars, and the webinars will be recorded for those interested who aren't able to attend. The presenter for the Northwest webinar is TBD. For more information and to register, visit: <http://www.energy.gov/diversity/mie-webinar>.

News, Publications and Resources

Alaskans Sharing Indigenous Knowledge (AKSIK.org) project. A science and advocacy project documenting the impacts of climate change in two Native communities in Alaska and communicating their adaptation needs - now has a new film on its website. You can view the film at: <http://aksik.org/content/stay-and-defend>.

The Arctic Adaptation Exchange. The Arctic Adaptation Exchange (AAE) facilitates knowledge exchange on climate change adaptation in the Arctic, and serves as a central information hub for communities, researchers and decision-makers in the public and private sectors.

Cahokia Statement on Tribal Adaptation. The Cahokia Statement on Tribal Adaptation has been assembled as a reflection of presentations made at the second National Adaptation Forum meeting that took place in St. Louis Missouri from May 12-14, 2015, as well as other recent publications, presentations and related activities by indigenous peoples in the United States and around the world. This Statement, while largely originating from the National Adaptation Forum, is not an official forum statement. It is open for endorsement by any individual or organization that wishes to support the issues and principles.

QUICK LINKS

- [PNW Tribal Climate Change Project & Online Funding Guide](#)
- [Institute for Tribal Environmental Professionals \(ITEP\) Tribes and Climate Change Program](#)
- [Columbia River Intertribal Fish Commission](#)
- [Northwest Indian Fisheries Commission](#)
- [Affiliated Tribes of Northwest Indians](#)
- [U.S. Climate Resilience Toolkit](#)
- [Northwest Climate Science Center](#)
- [North Pacific LCC](#)
- [Great Basin LCC](#)
- [Great Northern LCC](#)
- [USDA Climate Hubs](#)
- [Northwest Climate Hub](#)
- [EPA Climate Change Programs](#)
- [Climate Adaptation Knowledge Exchange](#)
- [USDA Forest Service Climate Change Resource Center](#)

NEWSLETTERS AND CALENDARS

- [ITEP Newsletter](#)
- [ITEP Tribes and Climate Change Calendar](#)
- [NW Climate Magazine](#)
- [NW CSC Calendar](#)
- [North Pacific LCC Calendar](#)

Climate and Traditional Knowledges Workgroup. 2015. The Ethics of Traditional Knowledge Exchange in Climate Change Initiatives. An essay exploring the ethical philosophy behind Guidelines for Considering Traditional Knowledges in Climate Change Initiatives.

Beaver Restoration Guidebook: Working with Beaver to Restore Streams, Wetlands, and Floodplains

In 2013, the NPLCC partnered with U.S. Fish & Wildlife, NOAA, Portland State University, and the U.S. Forest Service to develop a comprehensive guide on using beaver for stream restoration. Throughout the past year, five sold out workshops were held to share information from this developing guidebook with over 200 land managers currently working with, or interested in, using beaver in restoration projects. Workshop participants provided input and feedback into the guidebook, and we are pleased to announce its finalization and official release. The goal of this guidebook is to provide an accessible, useful resource for anyone involved in using beaver to restore streams, floodplains, wetlands, and riparian areas. It provides a practical synthesis of the best available science, an overview of management techniques, and case studies from throughout the western US. To download the guidebook, [click here](#).

Ford, Jamie Kay, and Erick Giles. "Climate Change Adaptation in Indian Country: Tribal Regulation of Reservation Lands and Natural Resources." *Wm. Mitchell L. Rev.* 41 (2015): 519.

ITEP video Adapting to Change: The Institute for Tribal Environmental Professionals (ITEP) produced the video Adapting to Change with assistance from Jeremy Scott, a graduate student in Northern Arizona University's School of Communication. The filming occurred at ITEP's Climate Change Adaptation training in September 2014 in Portland, OR. The film highlights climate change impacts on tribes and their resources in the Pacific Northwest and Alaska, adaptation, and the training. The video and the training were made possible with funding support from the USDA Forest Service PNW Research Station. <http://vimeo.com/118150835>

ITEP Tribal Climate Change Fact Sheets: The Institute for Tribal Environmental produces 2-page fact sheets that focus on climate change impacts, adaptation strategies, and other relevant topics. They may be used in outreach with tribal government staff, leadership and communities. Two recent fact sheets focus on climate change mitigation and solid waste and climate change and human health and are attached below. Fact sheets are available at: http://www4.nau.edu/tribalclimatechange/resources/res_factsheets.asp

Joint Fire Science Program: Traditional Ecological Knowledge: A Model for Modern Fire Management?

The interagency Joint Fire Science Program has released its latest issue of the Fire Science Digest. This issue discusses how state-of-the-art management strategies might benefit from an infusion of ancient indigenous wisdom and outlines efforts to braid traditional ecological knowledge with Western science. <http://www.firescience.gov/Digest/FSdigest20.pdf>

Maldonado J., Pandya RE, Colombi BJ. (eds.) 2013. Special Issue: Climate Change and Indigenous Peoples in the United States: Impacts, Experiences and Actions. *Climatic Change*. Volume 120, Issue 3, October 2013

Murphy, Daniel J.; Wyborn, Carina; Yung, Laurie; Williams, Daniel R. 2015. Key concepts and methods in social vulnerability and adaptive capacity. Gen. Tech. Rep. RMRS-GTR-328. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 24 p. National forests have been asked to assess how climate change will impact nearby human communities. To assist their

thinking on this topic, we examine the concepts of social vulnerability and adaptive capacity with an emphasis on a range of theoretical and methodological approaches.

National Adaptation Forum Presentations: Session presentations and posters from the 2015 National Adaptation Forum held in May 2015 are now available on the conference website under the Program tab. <http://www.nationaladaptationforum.org/>

Native American Calling: Effects of Climate Change on Native American Culture and Tradition on Native America Calling. The online recording is available here: <http://nativeamericacalling.com/wednesday-august-5-2015-effects-of-climate-change-on-native-american-culture-and-tradition/>.

Northern Institute of Applied Climate Science (NIACS) Adaptation Workbook. The Adaptation Workbook is a structured process to consider the potential effects of climate change on forest ecosystems and design forest management and conservation actions that can help prepare for changing conditions. The process is completely flexible to accommodate a wide variety of geographic locations, scales, forest types, management goals, and ownership types.

NOAA State of the Climate Reports: The State of the Climate is a collection of monthly summaries recapping climate-related occurrences on both a global and national scale. <http://www.ncdc.noaa.gov/sotc/>

Northwest Climate Magazine. This is a new annual publication from the Northwest Climate Science Center, the Climate Impacts Research Consortium and the North Pacific Landscape Conservation Cooperative aimed at sharing stories about Northwest climate research. <https://www.nwclimatescience.org/nw-climate-magazine>

2015 Tribal Cooperative Landscape Conservation Program Funding Awards Announced. The Bureau of Indian Affairs has announced awards of \$11.8 million to support Tribal Climate Change Adaptation Planning. A total of 104 awards have been made to the Bureau of Indian Affairs Tribal Climate Resilience Program in five categories, including Trainings and Workshops, Climate Adaptation Planning, Travel (Climate) Awards, Ocean and Coastal Management Planning, and Travel (Ocean and Coastal). For more information: <http://www.indianaffairs.gov/cs/groups/webteam/documents/document/idc1-030646.pdf>.

US Environmental Protection Agency. Lessons Learned by Communities for Communities. EPA's Local Climate and Energy Program released several new resources for local climate and energy program staff. This latest round of resources are written by communities, for communities. Each resource was driven by community needs, inspired by actual implementation experiences, and informed by staff who have developed successful climate and energy programs. Resources include a [Local Climate Action Framework](#), [Tip Sheets](#), and [Local Climate and Energy Program Model Design Guide](#).

US Environmental Protection Agency Local Government Climate Adaptation Training (USEPA). The U.S. Environmental Protection Agency released an online training module to help local government officials take actions to increase their communities' resiliency to a changing climate. The virtual training, which was informed by the National Climate Assessment released last year, was developed with advice from EPA's Local Government Advisory Committee and is the latest addition to the U.S. Climate Resilience Toolkit announced in November 2014. <http://www.epa.gov/localadaptationtraining/>

US Environmental Protection Agency New Report on Benefits of Taking Action on Climate Change. The Environmental Protection Agency released a new report, [Climate Change in the United States: Benefits of Global Action](#), that estimates the physical and monetary benefits to the U.S. of reducing global greenhouse gas emissions. This report summarizes results from the Climate Change Impacts and Risks Analysis (CIRA) project, a peer-reviewed study comparing impacts in a future with significant global action on climate change to a future in which current greenhouse gas emissions continue to rise. The report shows that global action on climate change will significantly benefit Americans by saving lives and avoiding costly damages across the U.S. economy.

USGS Climate Registry for the Assessment of Vulnerability. The USGS National Climate Change and Wildlife Science Center worked with the non-profit EcoAdapt and other partners to develop this tool which will house metadata on climate change vulnerability assessments from across the nation and will be made available for searching by the general public.

US Health and Human Services Climate Justice Conference Proceedings Online. Climate change is having and will continue to have significant impacts on people's health, in particular those who are already disproportionately impacted by environmental hazards and social conditions. HHS hosted a one and a half day conference to discuss the challenges, current HHS climate change related activities, and possible resources and tools in Research Triangle Park, North Carolina on June 8-9, 2015. <http://www.niehs.nih.gov/about/visiting/events/pastmtg/2015/climate/index.cfm>

White House Releases "Actions to Build Resilience to Climate Change Impacts in Vulnerable Communities" On July 9, 2015, the White House released a new fact sheet describing initiatives to build resilience to climate change impacts. These "actions" include Launching a Resilience AmeriCorps Pilot Program, Helping Tribes Prepare for Climate Impacts, and Providing Data and Tools for Climate Preparedness.. https://www.whitehouse.gov/administration/eop/ceq/Press_Releases/July_09_2015

White House: 2014 Highlights of Progress and 2015 Implementation Plan for the National Action Plan: Priorities for Managing Freshwater Resources in a Changing Climate
This report highlights progress made in implementing the National Action Plan (https://www.whitehouse.gov/sites/default/files/microsites/ceq/2011_national_action_plan.pdf) and describes the specific tasks that federal agencies are planning to undertake in 2015. http://acwi.gov/climate_wkg/NAP_2014_implementation_plan&2013_highlights_final3-24-14a.pdf