





Institute for Tribal Environmental Professionals

Welcome to ITEP's Tribal Climate Change Newsletter. This monthly newsletter provides news items, resources, announcements about funding opportunities, conferences, and training, and other information relevant to tribal climate change issues.

ITEP's Tribal Climate Change Newsletter

August 2018





The Robert Paine Scripps Forum (L), View from Scripps Forum looking towards Pacific Ocean (R), LaJolla, CA. Photo credit: Leanna Begay

Hello!

Oh where did the summer go? For some a new school year has started and for others its business as usual. Good luck to all the students!

We recently returned from three back-to-back trips which two were Climate Change Adaptation Planning trainings in Choctaw, MS and LaJolla, CA. The Mississippi Band of Choctaw Indians and the Climate Science Alliance – South Coast did a terrific job in hosting us, respectively. Thank you to all the participants and it was great hearing from amazing and knowledgeable presenters who shared their wealth of information and resources.

Lastly was the Tribal Lands and Environment Forum in Spokane, WA. There were 530 participants, from 167 tribes who came and participated in many of the activities offered such as choosing between 70 sessions, 18 trainings and 8 field trips. Click on the link to watch a video:

https://mediaspace.nau.edu/embed/secure/iframe/entryld/0_enoobiqf/uiConfld/30348781

We are all very appreciative of all the work, talent, and hospitality of all the folks who organized, participated and attended these events. Thank you for all the hard work!

With that, we wish you well and look forward to seeing you soon!

-Leanna, Nikki, Karen & Colleen

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Newsletter

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Tribes & Climate Change website

For more on tribes and climate change issues, visit ITEP's Tribes & Climate Change website at www7.nau.edu/itep/main/tcc/

In The News

New Website on Climate Change Adaptation for Coastal Transport

➤ UNCTAD launched a web site on climate change impacts and adaptation for coastal transport infrastructure, such as seaports and airports, in Caribbean small island developing states. © United Nations Conference on Trade and Development, 08/31/2018. http://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=1842

Climate Change Will Drastically Alter Earth's Vegetation

Once upon a time, Earth was colder, locked in its latest ice age. Eventually, roughly 14,000 years ago, things started thawing and the planet warmed back up. But that climate change, according to a new <u>paper in Science</u>, caused a major shift in vegetation. And if we don't curb our fossil fuel use and cut carbon emissions soon, the authors say, we'll see another big shift in plant life within 100 to 150 years. © Discover Magazine, 08/30/2018. http://blogs.discovermagazine.com/d-brief/2018/08/30/climate-change-will-drastically-alter-earths-vegetation/#.W46pubgna01

Ancient Plants Shed Light on Climate Change of Today

Without data from the future, it is difficult to predict all of the ecological impacts of global climate change. But research published in the journal Science on Thursday offers new insight into how warming temperatures have impacted ecosystems in the past. © Missoula Current, 08/30/2018. https://missoulacurrent.com/outdoors/2018/08/ancient-plants-climate-change/

Climate Change is Going to Cost California, and the Bill Will Be Staggering

As California lawmakers struggled this week to address an apparent new normal of epic wildfires, there was an inescapable subtext: Climate change is going to be staggeringly expensive, and virtually every Californian is going to have to pay for it. © CALmatters, 08/30/2018. https://calmatters.org/articles/cost-of-california-climate-change/

Climate Change Could Render Many of Earth's Ecosystems Unrecognizable

After the end of the last ice age — as sea levels rose, glaciers receded and global average temperatures soared as much as seven degrees Celsius — the Earth's ecosystems were utterly transformed. © The Washington Post, 08/30/2018. https://www.washingtonpost.com/science/2018/08/30/climate-change-could-render-many-earths-ecosystems-unrecognizable/?noredirect=on&utm_term=.4860431e8014

Climate Change Projected to Boost Insect Activity and Crop Loss

A new study co-authored by Earth System Science professor Rosamond Naylor projects insect pest damage to crops will rise sharply as temperatures continue to climb. © Stanford University, 08/30/2018. https://earth.stanford.edu/news/climate-change-projected-boost-insect-activity-and-crop-loss

To Predict Effects of Global Warming, Scientists Looked Back 20,000 Years

A warming world could eventually make some of our most familiar ecosystems — deciduous forests, grasslands, Arctic tundra — unrecognizable. © National Public Radio, 08/30/2018. https://www.npr.org/2018/08/30/643342003/to-predict-effects-of-global-warming-scientists-looked-back-20-000-years

As Climate Changes, Himalayan Farmers Return to Traditional Crops

Traditional crops and new innovations are offering farmers in the Himalayan region a way to deal with the challenges of climate change, but there is much work to be done for this to become a truly viable alternative. © Thethirdpole.net, 08/30/2018. https://www.thethirdpole.net/en/2018/08/30/as-climate-changes-himalayan-farmers-return-to-traditional-crops/

Amid the Federal Government's Climate Change Skepticism, States, and Counties Are Doing Their Own Climate Assessments

They're not trying to resist the Trump administration – they just need a plan for the future. © Pacific Standard, 08/29/2018. https://psmag.com/environment/amid-the-federal-governments-climate-change-skepticism-states-and-counties-are-doing-their-own-climate-assessments

Algae Bloom in Lake Superior Raises Worries on Climate Change and Tourism

In 19 years of piloting his boat around Lake Superior, Jody Estain had never observed the water change as it has this summer. The lake has been unusually balmy and cloudy, with thick mats of algae blanketing the shoreline. © The New York Times, 08/29/2018. https://www.nytimes.com/2018/08/29/science/lake-superior-algae-toxic.html

Bay Area Climate Change Report Raises Issues of Wildfires, Heat Waves, Water

UC Berkeley researchers released a report detailing current and future effects of climate change on the Bay Area on Monday morning. © The Daily Californian, 08/29/2018. http://www.dailycal.org/2018/08/29/bay-area-climate-change-report-raises-issues-of-wildfires-heat-waves-water/

Oak Creek Residents Affected by We Energies Coal Dust Crowdfund \$2,000 to Purchase Air-Quality Monitors

While We Energies has stated it would install air monitors, residents affected by coal dust from the Oak Creek plant want their own data; they raised nearly \$2,000 to install monitors themselves. © Journal Sentinel, 08/28/2018. https://www.jsonline.com/story/communities/south/news/oak-creek/2018/08/28/oak-creek-residents-affected-coal-dust-purchase-air-monitors/1117048002/

Already Vulnerable Populations Face Greater Risks from Climate Change, Report Finds

Californians can expect more wildfires, extreme heat, coastal flooding, water shortages and health problems in the years to come, but these problems won't affect everyone equally, according to a new state assessment on climate change. © California Health Report, 08/28/2018. http://www.calhealthreport.org/2018/08/28/already-vulnerable-populations-face-greater-risks-climate-change-report-finds/

The U.S. is on the Verge of An Offshore Wind Revolution

Though late to the game, East Coast states are poised for a major expansion into wind power – and to benefit from the jobs that come with it. © Yale Climate Connections, 08/23/2018.
https://www.yaleclimateconnections.org/2018/08/were-on-the-verge-of-a-wind-revolution/?popupally_stop=subscriber

Adding Up the Cost of Climate Change in Lost Lives

Scorching heat waves have gripped the world in recent weeks from the Pacific Northwest to Northern Europe and, most tragically, Japan, where more than 100 mostly elderly people have died. The usual caveat applies: no single event can be specifically tied to climate change. Nonetheless, it offers an unsettling preview of what may be in store for the coming century. © The Wall Street Journal, 08/01/2018. https://www.wsj.com/articles/adding-up-the-cost-of-climate-change-in-lost-lives-1533121201

In Vicious Cycle, Warmer Dirt Makes Climate Change Worse, Study Says

The dirt on the ground is making climate change worse, a new study finds. Plants capture massive amounts of carbon, pumping it into the soil, where usually it stays for hundreds or thousands of years. © CBS News, 08/01/2018. https://www.cbsnews.com/news/carbon-in-soil-dirt-making-climate-change-worse-study-says/

My Dad, Who Retires Today, Changed How We Think About Climate Change

Climate scientist Chris Hope has worked on climate policy since its earliest years, on the day of his retirement, his son Mat finally asks him what the Page model actually is. © Climate Change Home News, 07/31/2018. http://www.climatechangenews.com/2018/07/31/dad-retires-today-changed-think-climate-change/

Climate Change is Disrupting the Planet's Seasons

Four decades of temperature observations show what many suspected: Human activity is disrupting the behavior of plants, animals, and the march of the seasons. © Bloomberg, 07/20/18. https://www.bloomberg.com/news/articles/2018-07-20/climate-change-is-disrupting-the-planet-s-seasons

Climate Change is Heating up Los Angeles. We Need a Grid That Can Keep the Power on When It's Sweltering

The record-breaking heat that baked Southern California and prompted mass power outages last weekend was just a taste of what is to come. Summers in SoCal have already <u>been getting hotter</u> over the last century. Climate change is expected to produce more frequent and more blistering heat waves in the coming years that will put unprecedented stress on the electrical grid and challenge utilities to keep the power on. © Los Angeles Times, 07/12/2018. http://www.latimes.com/opinion/editorials/la-ed-dwp-heat-storm-20180712-story.html

Resources

Map of the Month - September

• September's map of the month shows where soils have been greatly modified by human activity, both in modern and ancient times. International communication about the general nature and specific properties of soils has been a major part of the U.S. soil survey program since its beginning. © USDA Natural Resources Conservation Service, 9/4/18. View the map at https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1417017.pdf.

California's Fourth Climate Change Assessment

- California's Fourth Climate Change Assessment (Fourth Assessment) advances actionable science that serves the
 growing needs of state and local-level decision-makers from a variety of sectors.
 The Fourth Assessment presents information in a variety of ways, all accessible through this site. Regional reports
 summarize climate impacts and adaptation needs around the state, at a resolution useful for local decision makers.
 Statewide impacts are summarized in the Statewide Summary Report, as well as reports on Tribal and Indigenous
 Communities, Climate Justice, and California's Ocean and Coast. The Technical Reports are the foundation of the
 Fourth Assessment, and include climate projections and analyses of expected impacts in various sectors across
 the state. © State of California 08/30/2018. http://www.climateassessment.ca.gov/
- Summary Report from Tribal and Indigenous Communities within California http://climateassessment.ca.gov/state/docs/20180827-TribalCommunitySummary.pdf

Climate Change, Health, and Equity

As one of the biggest public health threats today, climate change is a health equity issue. Authored by Public
Health Institute with support from APHA, the Kresge Foundation, and the California Department of Public health,
Climate Change, Health, and Equity: A Guide for Local Health Departments (PDF) is designed to help local public
health departments integrate climate change and health equity into practice.

American Public Health Association,
08/28/2018.
https://www.apha.org/topics-and-issues/climate-change

NASA Minority University Research and Education Project (MUREP) for American Indian and Alaska Native STEM Engagement – NASA MAIANSE

We have been working hard on something special this summer and are happy to announce that we have liftoff!
 NASA's MAIANSE Activity seeks to increase American Indian and Alaska Native engagement in STEM through
 authentic and unique NASA experiences. © National Aeronautics and Space Administration, 08/28/2018.
 https://www.nasa.gov/education/maianse

Energy Department Funds Tribal Energy Infrastructure Projects

The <u>U.S. Department of Energy</u> announced nearly \$9 million in funding for 15 tribal energy infrastructure projects. This funding through the DOE Office of Indian Energy Policy and Programs will help Native American and Alaska Native communities harness their vast undeveloped energy resources to reduce or stabilize energy costs, as well as increase energy security and resilience. © Sustainable City Network, 08/27/2018.
 https://www.sustainablecitynetwork.com/topic_channels/energy/article_47b56cba-aa65-11e8-92b2-138ccc465ba0.html?mc_cid=8e5c926582&mc_eid=4e570c06ee

Lessons Learned from Centuries of Indigenous Forest Management

Over centuries, even millennia, indigenous communities have developed interdependent systems of agriculture
and forestry that are uniquely suited to the ecological requirements of the land they inhabit. Yet even today, says
Charles M. Peters, the Curator of Botany at the New York Botanical Gardens, that skill and knowledge often
remain unacknowledged, with some government officials and conservationists arguing that indigenous
communities should sometimes be excluded from protected lands that are part of their historical territory. © Yale
Environment 360, 08/20/2018. https://e360.yale.edu/features/lessons-learned-from-centuries-of-indigenous-forest-management

"Indian Time": Characterizing Tribal Understandings of Time and Seasonality in the Context of Climate Change

In a <u>new paper</u> published in the journal *Ecological Processes*, Northwest CASC-funded researchers explore how
Western climate science and TEK relate to time and seasonality in the context of climate change, to identify how
these forms of knowledge are complementary and how they differ. This paper is a product of the Northwest CASC
project <u>Assessing the Cultural Effects of Climate Change on Northwest Tribes</u>. © USGS Climate Adaptation
Science Centers, 08/06/2018. https://casc.usgs.gov/content/indian-time

Managing for a Changing Climate Online Short Course

Are you interested in learning about climate? Have you been curious about the impacts of a changing climate? Do you wonder how managers adapt to local changes in extremes? Our short courses will provide an integrative understanding of the components of the climate system. We will discuss the impacts of a changing climate on sectors such as the economy, policy, ecosystems, and indigenous populations. We will also discuss how managers can adapt to these changes. © South Central Climate Adaptation Science Center, 07/31/2018. https://docs.google.com/forms/d/e/1FAlpQLScEILCxZ4H5WHayNyc9JHr2KcQUoWqf5PzXNQ1H8UdAXzNV2A/viewform

Research Ethics: A Source Guide to Conducting Research with Indigenous Peoples.

A great deal of literature and guidelines have emerged regarding appropriate methods and practices for conducting research with Indigenous Peoples. This page intends to keep abreast of these publications and statements. While

this list is organized regionally, all sources have contributions to the overall discussion. © Indigenous Peoples, 07/26/2018. http://www.indigenousgeography.net/ethics.shtm

Introducing LERI, a New High-Resolution and Remotely-Sensed Drought Monitoring Tool

• The Landscape Evaporative Response Index (LERI) is an experimental drought-monitoring and early warning guidance tool that measures deviations in the actual evapotranspiration. © North Central Climate Adaptation Science Center, 07/23/2018. http://nccsc.colostate.edu/news/introducing-leri

Tribal Energy Atlas

• The <u>Tribal Energy Atlas</u> is a first-of-its-kind interactive geospatial application that allows tribes and others to conduct their own analyses of installed energy projects and resource potential on tribal lands. Developed by NREL researchers with funding from the U.S. Department of Energy (DOE) Office of Indian Energy, it's the most robust tool ever designed to assist tribal energy project planners, technicians, and investors with analyzing energy options in Indian Country. © National Renewable Energy Lab, 07/18/2018. https://www.nrel.gov/news/program/2018/nrel-developed-tribal-energy-atlas-puts-resource-data-in-tribes-hands.html

10 Things You May Not Know About Drought

• Drought can have real consequences for ecosystems and human communities alike - from leading to increases in wildfire, insect outbreaks, local species extinctions, and forest diebacks, to altering rates of carbon, nutrient, and water cycling. In the future, droughts are generally expected to be hotter, longer-lasting, and larger than those of the past, potentially intensifying these impacts. Scientists from across the country are working to understand the many different impacts of drought, how they might change in the future, and how we can better predict and prepare for these events. Learn about some of our efforts to address the challenges of drought with these 10 examples from across the National and Regional Climate Adaptation Science Center network. © USGS Climate Adaptation Science Centers, 06/23/2018. https://casc.usgs.gov/content/10-things-you-may-not-know-about-drought

Our Future Climate in Samish Traditional Territory

Samish Indian Nation's effort to build resilience for the future impacts of climate change in the San Juan
Archipelago, Washington State. This story map was featured as ESRI's June Story Map of the Month and won first
in the 2018 ESRI Tribal Story Map Challenge. © Samish Indian Nation Natural Resources Department, 2018.
https://arcg.is/0SaLaz

Supporting Relationships Between Tribes and Climate Science

Our project focused on developing climate scenario planning activities led by the Tribes and Tribal members we
worked with, and supported by NE CASC resources to provide relevant climate science information. © Northeast
Climate Adaptation Science Center, 06/01/2018. https://necsc.umass.edu/news/project-completed-supporting-relationships-between-tribes-and-climate-science

Native Knowledge: What Ecologists Are Learning from Indigenous People

From Alaska to Australia, scientists are turning to the knowledge of traditional people for a deeper understanding of
the natural world. What they are learning is helping them discover more about everything from melting Arctic ice, to
protecting fish stocks, to controlling wildfires. © Yale Environment 360, 04/26/2018.
https://e360.yale.edu/features/native-knowledge-what-ecologists-are-learning-from-indigenous-people

Other Items of Interest

Call for Abstracts: 2019 Organic Agriculture Research Forum

Presenters are invited to submit abstracts for the forum. Presentations will be selected based on their innovative excellence, relevance to the research, education, and extension needs and priorities of organic farmers and ranchers, soundness of the methodology used, and the overall scientific quality. Forum proceedings will be open-access and electronically available via eOrganic.info. Abstracts should be sent to grants@ofrf.org. Deadline for abstracts is September 10, 2018.

Job Vacancy: Climate Change Program Coordinator, Inuvialuit Regional Corporation

Inuvialuit Regional Corporation (IRC) invites applications for the position of Climate Change Program Coordinator based in Inuvik, NT. Under the guidance of the Research Manager, the Climate Change Program Coordinator is responsible for addressing short and long-term climate policy needs by supporting regional/community climate change priorities and establishing a climate change program within the Inuvialuit Settlement Region (ISR). The successful candidate will work closely with local communities, and the Inuvialuit Corporate Group to ensure a coordinated approach to climate change adaptation/migration efforts in the ISR. Deadline to apply is September 21, 2018. Should this opportunity interest you, please submit a cover letter and resume in confidence to: Inuvialuit

Regional Corporation – Human Resources Division, jobs@inuvialuit.com, or by fax: 867-777-4506. Visit http://www.irc.inuvialuit.com/jobs for more information.

SAIGE Carol Jorgensen Scholarship for Environmental Stewardship

In 2018, SAIGE will award two \$1,000 scholarships to full time students pursuing undergraduate degrees in an environmental stewardship discipline, including environmental studies, natural resource management, the natural sciences, public administration, public policy, and related disciplines. Deadline September 30, 2018 by 6:00 p.m. (PT). Visit https://saige.org/member-resources/scholarships/ for more information.

USDA National Graduate Fellowship (NNF) in Native American Forestry at School of Forestry, Northern Arizona University

Two Master's-level fellowships are available. The program goal is to produce the next generation of Native American leaders. Fellows are expected to conduct research aimed at managing resilient forest agroecosystems in tribal lands, and engaging in tribal outreach, teaching and community engagement. Project directors are Dr. Yeon-Su Kim; Dr. Thomas Kolb; Dr. Peter Fulé, Dr. Andrew Sánchez-Meador at School of Forestry and Dr. Manley Begay at Applied Indigenous Studies. Other partners include the Institute for Tribal Environmental Professionals (ITEP), and other supporting units at NAU and various land management agencies and Native American tribal governments. The fellowship includes a stipend (\$18,500/yr for two years), tuition waiver, health insurance, and educational allowance. For more information, contact Dr. Yeon-Su Kim at ysk@nau.edu (or call 928-523-6643). Review of applications will begin on October 1, 2018.

Volunteer with Resilience Dialogues this Fall

The Resilience Dialogues program is seeking Subject Matter Experts (SMEs) for an upcoming round of Community Dialogues this October and November. This is a fantastic professional service opportunity that will apply your climate adaptation knowledge and help you build skills working with local communities. Resilience Dialogues SMEs come from a range of backgrounds including planning and engineering, community engagement, applied climate science, community health, and more! Learn more about the Resilience Dialogues by visiting: http://resiliencedialogues.org

National Water Program Analysis Including State and Tribal Issues, Oak Ridge Institute for Science and Education (USEPA)

* Reference Code: EPA-Water-2018-441. Visit https://www.zintellect.com/Opportunity/Details/EPA-Water-2018-441 for information and how to apply.

Funding Opportunities

NOTE: More Funding Opportunities can be found at the Tribes & Climate Change website: http://www7.nau.edu/itep/main/tcc/Resources/funding. Also, see the Tribal Climate Change Guide maintained by the Pacific Northwest Tribal Climate Change Project at the Univ. of Oregon: http://tribalclimateguide.uoregon.edu/

EPA Tribal Clean Diesel Funding Assistance Program

EPA's Office of Transportation and Air Quality is soliciting proposals nationwide for projects that achieve significant reductions in diesel emissions in terms of tons of pollution produced by diesel engines and diesel emissions exposure, particularly from fleets located in areas designated as having poor air quality. Further, priority for funding will be given to projects which result in outcomes that benefit affected communities, those that engage affected communities with respect to the design and performance of the project, and those which can demonstrate the ability to promote and continue efforts to reduce emissions after the project has ended. Eligible Entities: Tribal governments and Alaska Native Villages which have jurisdiction over transportation or air quality. Applications Due: September 6, 2018. For more information, visit the Clean Diesel Tribal Grants web page.

Solicitation of Project Proposals: Public Transporation on Indian Reservations Program

The Federal Transit Administration (FTA) announces the availability of approximately \$5 million in funding provided by the Public Transportation on Indian Reservations Program (Tribal Transit Program (TTP)), as authorized by 49 U.S.C. 5311(c)(1)(A), as amended by the Fixing America's Surface Transportation Act (FAST), Public Law 114-94 (December 4, 2015). This is a national solicitation for project proposals and includes the selection criteria and program eligibility information for Fiscal Year 2018 projects. The primary purpose of these competitively selected grants is to support planning, capital, and, in limited circumstances, operating assistance for tribal public transit services. Funds distributed to Indian tribes under the TTP should not replace or reduce funds that Indian tribes receive from states through FTA's Section 5311 program. Applications Due: September 10, 2018. Funding Opportunity #: FTA-2018-001-TPM0TR https://www.grants.gov/web/grants/search-grants.html?keywords=tribes

DOI National Park Service: Land and Water Conservation Fund Outdoor Recreation Legacy Partnership Program

This Notice of Funding Opportunity is to advise States, local units of government, and federally-recognized Indian Tribes of the availability of funds for grants from the Land and Water Conservation Fund's (LWCF) Outdoor Recreation Legacy Partnership (ORLP) Program. Eligible Entities: State and local government agencies and federally recognized Indian tribes. Applications Due: September 14, 2018. For more information, visit the funding opportunity description.

Tribal Energy Loan Guarantee Program

The Tribal Energy Loan Guarantee Program (TELGP) is a partial loan guarantee program that can guarantee up to \$2 billion in loans to support economic opportunities to tribes through energy development projects and activities. Under this solicitation, DOE can guarantee up to 90 percent of the unpaid principal and interest due on any loan made to a federally recognized Indian tribe for energy development. The tribal borrower will be required to invest equity in the project and all project debt will be provided by non-federal lenders.
https://www.energy.gov/lpo/tribal-energy-loan-guarantee-program#deadlines
TELGP Part 1 Due Date: 09/19/2018.
For Tribal Energy Loan Guarantee Program Solicitation Deadlines visit:
https://www.energy.gov/lpo/calendars/tribal-energy-loan-guarantee-program-solicitation-deadlines

Grassroots Communities Mining Mini-Grant

The goal of the Mining mini-grants Program is to support and enhance the capacity building efforts of mining-impacted communities in the U.S. and Canada to assure that mining projects do not adversely affect human, cultural, and the ecological health of communities. Applications accepted are accepted three times a year: June, October, and February. Applicants will be notified of the funding decision within one month of the application deadline. Deadline: 10/1/2018. <a href="http://www.ienearth.org/ien-wman-mini-grant/?utm_medium=email&utm_source=MyNewsletterBuilder&utm_content=2724201462&utm_campaign=Time+to+APPLY+for+the+2018+Grassroots+Communities+Mining+Mini-Grant+-headline+June+1st+2018+1413603512&utm_term=IENWMAN+Mining+Mini-Grants

Paleo Perspectives on Climate Change (NSF)

The goal of research funded under the interdisciplinary P2C2 solicitation is to utilize key geological, chemical, atmospheric (gas in ice cores), and biological records of climate system variability to provide insights into the mechanisms and rate of change that characterized Earth's past climate variability, the sensitivity of Earth's climate system to changes in forcing, and the response of key components of the Earth system to these changes. Funding opportunity #: 17-582. Eligibility is unrestricted. Deadline: 10/22/2018. https://www.grants.gov/web/grants/search-grants.html

Climate Program Office FY 2019 (NOAA)

NOAA is focused on providing the essential and highest quality environmental information vital to our Nation's safety, prosperity and resilience. Toward this goal, the agency conducts and supports weather and climate research, oceanic and atmospheric observations, modeling, information management, assessments, interdisciplinary decision-support research, outreach, education, and partnership development. Eligible entities: Native American tribal governments, institutions of higher education, other nonprofits, state, commercial and international organizations. Funding opportunity number: NOAA-OAR-CPO-2019-2005530 at www.grants.gov.Deadline: 11/20/2018.

Flood Mitigation Assistance Program (FMA)

The FMA Grant Program makes available Federal funds to State, Local and Tribal Governments to reduce or eliminate the risk of repetitive flood damage to buildings and structures insured under the National Flood Insurance Program (NFIP). In FY18, the FMA Program will prioritize proposals that address community flood risk by setting aside \$70 million for this purpose. FMA will seek to fund two types of community flood mitigation activities: Advance Assistance for flood mitigation design and development of community flood mitigation projects and mitigation projects that address community flood risk for the purpose of reducing NFIP flood claim payments. Applicants must submit applications via the Mitigation eGrants system on the FMA Grants Portal: https://portal.fema.gov. Applicants may submit a maximum of 1 advanced assistance and 1 community mitigation project sub-application. Eligible entities: Native American Tribal governments (Federally recognized), state governments and others. Funding opportunity number: DHS-18-MT-029-000-99 at www.grants.gov. Deadline: 01/31/2019.

Pre-Disaster Mitigation Program (PDM)

The PDM program makes available Federal funds to State, Local and Tribal Governments to implement and sustain cost-effective measures designed to reduce the risk to individuals and property from natural hazards, while also reducing reliance on Federal funding from future disasters.
FEMA will provide allocations of \$575,000 as required by the Stafford Act to states and territories; and a tribal set

aside of \$15 million for allocations up to \$575,000 for Native American Indian tribal governments to support overall mitigation planning and projects. The remaining PDM funds will be awarded on a competitive basis with a focus on multi-state/tribal mitigation initiatives.

Applicants must submit applications via the Mitigation eGrants system on the FEMA Grants Portal: https://portal.fema.gov. Applicants may submit a maximum of 9 project sub-applications notwithstanding any project(s) submitted for the state/territory allocation or tribal set aside. In addition, any state or tribe willing to serve as the applicant for a multi-state or tribal activity may submit one additional plan or project sub application. Eligible entities: Native American Tribal governments (federally recognized), state governments, and others. Funding opportunity number: DHS-18-MT-047-000-99 at www.grants.gov. Deadline 01/31/2019.

National Clean Diesel Campaign (EPA: Office of Transportation & Air Quality)

■ EPA is soliciting applications nationwide for Tribal projects that achieve significant reductions in diesel emissions and diesel emissions exposure, particularly from fleets located in areas designated as having poor air quality. EPA anticipates \$2 million will be awarded to eligible Tribal applicants. EPA will hold two upcoming webinars about the FY 2018 Tribal DERA RFA. The first will be on Wednesday, September 19, 2018, at 2:00 p.m. (ET). The second will be on Thursday, February 21, 2019, at 2:00 p.m. (ET). Webinar information and links are available at https://www.epa.gov/cleandiesel/clean-diesel-tribal-grants#2018rfp. Deadline to apply 04/03/2019.

Upcoming Events

NOTE: More Upcoming Events can be found at the Tribes & Climate Change website: http://www7.nau.edu/itep/main/tcc/Home/Events

September

Online Short Course: Managing for a Changing Climate: Introduction to the Climate System

August 27 – September 10, Our short courses will provide an integrative understanding of the components of the climate system. We will discuss the impacts of a changing climate on sectors such as the economy, policy, ecosystems, and indigenous populations. We will also discuss how managers can adapt to these changes. Click on link to register.

https://docs.google.com/forms/d/e/1FAlpQLScEILCxZ4H5WHayNyc9JHr2KcQUoWqf5PzXNQ1H8UdAXzNV2A/viewform

Festival: Water is Life

September 1, Conkling Heritage Park, Mackinaw City, MI. Come and celebrate water and our connection to it through music (including several bands and hip-hop artists), poets and speakers, and tribal leaders. The day begins with the Protest at 8:30 AM and LUNCH will be served at 12 NOON following the flotilla. https://www.oilandwaterdontmix.org/water is life festival 2018

Webinar: Portfolio Manager 101

September 4, 1:00 p.m. (ET). Webinar is sponsored by ENERGY STAR. Learn about EPA's ENERGY STAR Portfolio Manager tool. Attendees will learn how to: navigate Portfolio Manager; add a property and enter details about it; enter energy and water consumption data; and generate template performance reports to assess progress. Register

Webinar: Portfolio Manager: Ask the Expert

September 5, 12:00 p.m. (ET). Webinar is sponsored by ENERGY STAR. Most Wednesdays ENERGY STAR holds a live webinar that gives all Portfolio Manager users an opportunity to ask their questions directly to EPA experts in an open forum. Register

Webinar: What Changes in Portfolio Manager and Why? ENERGY STAR Scores and Metrics after the 8/26 Updates

September 5, 1:00 p.m. (ET). Sponsored by ENERGY STAR. On August 26, 2018, EPA updated the models in Portfolio Manager that power 1-100 ENERGY STAR scores with new data, based on the latest Commercial Building Energy Consumption Survey (CBECS) from the U.S. Energy Information Administration. When metrics are updated, ENERGY STAR scores and other performance metrics will, on average, go down. A few days after these updates, join us to learn about what information changed in the tool and why. Register

Webinar: How to apply for the ENERGY STAR

September 6, 1:00 p.m. (ET). Webinar is sponsored by ENERGY STAR. Join us to learn about applying for ENERGY STAR certification in Portfolio Manager. Understand the value of ENERGY STAR certification, see the step-by-step process of applying, and learn tips to help your property progress from application to award. Register

Conference: Our Estuary at an Intersection

September 10-12, Sacramento, CA. The Biennial Bay-Delta Science Conference is a forum for presenting technical analyses and results relevant to the Delta Science Program's mission to provide the best possible, unbiased, science-based information for water and environmental decision-making in the Bay-Delta system. The goal of the conference is to offer new information and syntheses to the broad community of scientists, engineers, resource managers, and stakeholders working on Bay-Delta issues. http://scienceconf2018.deltacouncil.ca.gov/

Online Short Course: Managing for a Changing Climate: Climate Models, Downscaling and Assessments September 10 – October 1, Our short courses will provide an integrative understanding of the components of the climate system. We will discuss the impacts of a changing climate on sectors such as the economy, policy, ecosystems, and indigenous populations. We will also discuss how managers can adapt to these changes. Click on link to register.

https://docs.google.com/forms/d/e/1FAlpQLScEILCxZ4H5WHayNyc9JHr2KcQUoWqf5PzXNQ1H8UdAXzNV2A/viewform

Webinar: EGrants for Beginners

September 11, 11:00 a.m. (PT). To attend the webinar, click on the link at Adobe Connect: https://fema.connectsolutions.com/beginnersegrants/ or you may dial 1-800-320-4330 Code: 338559#. This webinar is sponsored by FEMA for the FY 2018 Notice of Funding Opportunity announcements. Prospective FY18 applicants may attend. These webinars will be "MT eGrants 101" for basic users and new users. Topics covered will include how to access the system, where to go for help, and plenty of time for question and answer. Primarily intended for sub-applicants and new users.

Webinar: Energy Treasure Hunts

September 11, 1:00 p.m. (ET). Webinar is sponsored by ENERGY STAR. During an Energy Treasure Hunt, groups of people walk around a building looking for opportunities to save energy. Treasure Hunts focus on quick fixes with a short payback period. Hundreds of organizations have used Energy Treasure Hunts to reduce their facilities' energy use by 7 to 15 percent. Register

Webinar: Portfolio Webinar 201

September 11, 1:00 p.m. (ET). Webinar hosted by ENERGY STAR. Continue to learn about EPA's ENERGY STAR Portfolio Manager tool with a deeper dive into more advanced functionalities such as: editing property data; correcting and updating property use details; using the data quality checker; and sharing property data. Register

Webinar: California's Pioneering Policies for New Homes: Greater Efficiency with Required Solar Energy September 11, 1:00 p.m. (ET). Sponsored by Clean Energy States Alliance. This webinar will put the requirement into context by describing the California Energy Commission's efforts over time to improve the energy efficiency of new homes by strengthening building codes and encouraging the installation of solar energy systems, which laid the groundwork for the recent solar requirement. The webinar will explain the requirement, how it will be implemented, and how other states might adopt similar policies. The webinar will also discuss California's attempt to adopt a carbon metric in future cycles of the state's building energy efficiency standards and the implications for buildings in the state. Register here

Webinar: FY 2018 Notice of Funding Opportunity Announcements for Flood Mitigation Assistance and Pre-Disaster Mitigation Grant Programs

September 12, 11:00 a.m. (PT). To attend the webinar, click on the link at Adobe Connect: https://fema.connectsolutions.com/nofo18/ or you may dial 1-800-320-4330 Code: 338559#. FEMA will offer a webinar on the FY18 NOFOs for prospective applicants. This webinar will be offered four times, and applicants may attend any session.

Webinar: Portfolio Manager: Ask the Expert

September 12, 12:00 p.m. (ET). Webinar is sponsored by ENERGY STAR. Most Wednesdays ENERGY STAR holds a live webinar that gives all Portfolio Manager users an opportunity to ask their questions directly to EPA experts in an open forum. Register

Webinar: NE CASC Activities and Science Updates from Our University Director

September 12, 12:00 p.m. (ET). Richard Palmer, UMass University Director of NE CASC will start off our brownbag series talks by updating us on NE CASC activities and the state of the science for climate adaptation, share

activities and updates on the "state of the science for climate adaptation". Register at https://necsc.umass.edu/webinars

Webinar (5 of 6): Effective Grants Management/Administration & Reporting

September 12, 1:00 p.m. (ET). The Health Resources and Services Administration (HRSA) is hosting a FREE Grants Education and Technical Assistance Webinar Series for Tribes, Tribal Organizations, Indian Health, Tribal and Urban Indian Health Programs. Learn about the federal grant application process, how to write better grant proposals and evaluation plans for your projects, strategies for successful grant management, and more. Participants will also have the opportunity to connect with HRSA subject matter experts, grant reviewers, as well as peers to discuss best practices and barriers to successful grants application and management. Register here: https://hrsa.connectsolutions.com/federal_grant_application_recording/event/registration.html

Webinar: Green Streets in Dense Communities

September 12, 1:00 p.m. (ET). Webinar sponsored by U.S. EPA. This webinar, part of EPA's <u>Soak Up the Rain webinar series</u>, will showcase results of a two-year planning initiative by the City of Cambridge and the Charles River Watershed Association (CRWA) to identify and design green infrastructure strategies for dense, residential city streets. CRWA designed three individual "<u>green streets</u>", an innovative stormwater management approach that captures rain where it falls by using vegetation, soil and engineered systems to slow, filter and clean stormwater runoff from impervious surfaces. Register at: https://register.gotowebinar.com/register/6949262425055015682

Webinar: Cool Fixes for Hot Cities Part 2: Los Angeles

September 12, 2:00 p.m. (ET). Webinar sponsored by U.S. EPA. Part 2 of the Cool Fixes for Hot Cities webcast series will cover Los Angeles' cool streets pilot project and other heat island reduction measures. The innovative pilot is in progress on 15 blocks throughout the city and is already generating benefits and lessons learned. Learn more about the pilot, the benefits of cool pavements, and Los Angeles' plans to reduce temperatures citywide in this 90-minute webcast hosted by EPA's Heat Island Reduction Program. Register at https://www.epa.gov/heat-islands/heat-island-webcast-series

Summit: Global Climate Action Summit

September 12-14, San Francisco, CA. The 2018 Summit will bring people together from around the world to showcase climate action and inspire deeper commitments from nation governments, and each other, in support of the Paris Agreement. https://globalclimateactionsummit.org/

Webinar: FY 2018 Notice of Funding Opportunity Announcements for Flood Mitigation Assistance and Pre-Disaster Mitigation Grant Programs

September 13, 9:00 a.m. (PT). To attend the webinar, click on the link at Adobe Connect: https://fema.connectsolutions.com/nofo18/ or you may dial 1-800-320-4330 Code: 338559#. FEMA will offer a webinar on the FY18 NOFOs for prospective applicants. This webinar will be offered four times, and applicants may attend any session.

Webinar: Portfolio Manager 301

September 13, 1 PM (ET). Webinar hosted by ENERGY STAR. With a good background on the basic functionality of EPA's ENERGY STAR Portfolio Manager tool, learn about some advanced features including: using spreadsheet upload templates to update property data; setting goals and targets to plan energy improvements for properties; creating custom reports; and using the Sustainable Buildings Checklist. Register

Webinar: Portfolio Manager: Ask the Expert

September 19, 12:00 p.m. (ET). Webinar is sponsored by ENERGY STAR. Most Wednesdays ENERGY STAR holds a live webinar that gives all Portfolio Manager users an opportunity to ask their questions directly to EPA experts in an open forum. Register

Webinar: FY 2018 Clean Diesel Grants -Tribal Request for Applications

September 19, 2:00 p.m. (ET). EPA's Office of Transportation and Air Quality is soliciting applications nationwide for Tribal projects that achieve significant reductions in diesel emissions and diesel emissions exposure, particularly from fleets located in areas designated as having poor air quality. EPA anticipates \$2 million will be awarded to eligible Tribal applicants. Register at https://www.epa.gov/cleandiesel/clean-diesel-tribal-grants#2018rfp. Call-in Number: 1-202-991-0477; Access Code: 414-9804#.

Webinar: EGrants for Advanced Users

September 19, 11:00 a.m. (PT). To attend the webinar, click on the link at Adobe Connect: https://fema.connectsolutions.com/advancedgrants/ or you may dial 1-800-320-4330 Code: 338559#. This webinar is sponsored by FEMA for the FY 2018 Notice of Funding Opportunity announcements. Prospective FY18

applicants may attend. These webinars will cover more complex best practices for experienced users. Topics covered will include common pitfalls in successful application development, awareness of system limitations, and plenty of time for question and answer. Primarily intended for grant applicants, experience sub-applicants, and power users.

Webinar: Reaching Rural Communities with Energy Efficiency Programs

September 19, 1:00 p.m. (ET). Offered by the American Council for an Energy-Efficient Economy (ACEEE). Many residents in rural America spend more of their income on energy bills than their metro counterparts. They can benefit from energy efficiency services, but a city-based program may not work best for them. Rural areas often have different infrastructure, energy use, and fuel mix, and they have smaller utilities. They need an approach geared toward rural communities. A new report by the ACEEE, Reaching Rural Communities with Energy Efficiency Programs, shares great examples of people who have leveraged the strength of these communities to provide tailored solutions. Register

Webinar: EGrants for Advanced Users

September 20, 9:00 a.m. (PT). To attend the webinar, click on the link at Adobe Connect: https://fema.connectsolutions.com/advancedgrants/ or you may dial 1-800-320-4330 Code: 338559#. This webinar is sponsored by FEMA for the FY 2018 Notice of Funding Opportunity announcements. Prospective FY18 applicants may attend. These webinars will cover more complex best practices for experienced users. Primarily intended for grant applicants, experience sub-applicants, and power users.

Webinar: Connectivity for Climate Change: Assessing Threats and Identifying Conservation Actions
September 20, 3:00 p.m. (ET). An important conservation strategy for climate change is to enhance and maintain regional habitat connectivity for the long-term viability of wildlife populations. Modeling habitat connectivity for wildlife species often results in a mapped network of linkages between habitat patches. Register at https://casc.usgs.gov/webinar/costanza_connectivity

Webinar: Portfolio Manager: Ask the Expert

September 26, 12:00 p.m. (ET). Sponsored by ENERGY STAR. Most Wednesdays ENERGY STAR holds a live webinar that gives all Portfolio Manager users an opportunity to ask their questions directly to EPA experts in an open forum. Register

Tribal Energy Webinar: Facility and Community Scale Project Development

September 26, 1:00 p.m. (ET). Co-sponsored by DOE Office of Indian Energy and the Western Area Power Administration, this webinar will describe how taking on facility- and community-scale energy projects can allow tribes to gain experience and expertise in project development while limiting risk; however, like utility-scale projects, facility- and community-scale projects also have their own unique challenges. This webinar will outline options for financing and addressing other challenges related to facility- and community-scale project development. Click here to Register.

Scoping Session: Coastlines and People (CoPe)

September 26-28, 3 locations and 1 virtual workshop. San Diego, CA; Chicago, IL; Atlanta, GA and Virtual The goal of this effort is to imagine Coastal Research Hubs, structured using a convergent science approach, at the nexus between coastal sustainability, human dimensions, and coastal processes to transform understanding of interactions among natural, human-built, and social systems in coastal populated environments. UCAR would like to engage the scientific community in the development of emerging research needs related to CoPe, through three regional and one virtual, concurrently-held scoping workshops. https://coastlinesandpeople.org/

October

Training: Armed to Farm

October 1-5, Fayetteville, AR. Sponsored by NCAT's <u>ATTRA Sustainable Agriculture</u> program and USDA Small and Medium-sized Farm Program. ATF's engaging blend of farm tours, hands-on experience, and interactive classroom instruction gives participants a strong foundation in the basic principles of operating a sustainable farm. Participants learn about business planning, budgeting, recordkeeping, marketing, livestock production, fruit and vegetable production, and more. In addition, attendees gain a network of supportive farmer-veterans and agricultural advisors. Free event for those selected to attend, including lodging at the retreat center, transportation to farms and most meals will be provided. Participants must pay their own travel costs to and from the event. For more information, contact Margo Hale at margoh@ncat.org or 479-442-9824.

Online Short Course: Managing for a Changing Climate: Societal Impacts of Climate Change

October 1 – October 22, Our short courses will provide an integrative understanding of the components of the climate system. We will discuss the impacts of a changing climate on sectors such as the economy, policy, ecosystems, and indigenous populations. We will also discuss how managers can adapt to these changes. Click on link to register.

https://docs.google.com/forms/d/e/1FAlpQLScEILCxZ4H5WHayNyc9JHr2KcQUoWqf5PzXNQ1H8UdAXzNV2A/viewform

Conference: 3rd Annual Conference on Native American Nutrition

October 2-5, Prior Lake, MN. Join us for this annual conference that brings together tribal officials, researchers, practitioners, and others to discuss the current state of Indigenous and academic scientific knowledge about Native nutrition and food science, and identify new areas of work. http://seedsofnativehealth.org/conference/

Conference: 9th Annual Northwest Climate Conference

October 9-11, Boise, ID. This conference brings together more than 300 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 PNW. http://pnwclimateconference.org/index.html

Webinar (6 of 6): Successful Health Resources and Services Administration (HRSA) Tribal Grantees
October 10, 1:00 p.m. (ET). HRSA is hosting a FREE Grants Education and Technical Assistance Webinar Series
for Tribes, Tribal Organizations, Indian Health, Tribal and Urban Indian Health Programs. Learn about the federal
grant application process, how to write better grant proposals and evaluation plans for your projects, strategies for
successful grant management, and more. Participants will also have the opportunity to connect with HRSA subject
matter experts, grant reviewers, as well as peers to discuss best practices and barriers to successful grants
application and management. Register at:

https://hrsa.connectsolutions.com/federal_grant_application_recording/event/registration.html

Conference: Restoring Resilient Communities in Changing Landscapes

October 15-18, Spokane, WA. The Society for Ecological Restoration and Society of Wetland Scientists are pleased to announce their joint PNW Regional conference October 15-18, 2018 in Spokane, Washington. The conference will also provide a forum for members of North American Chapters of the Society for Ecological Restoration to address regional and continental North American issues of importance to wetland science and ecological restoration. The conference will gather scientists, practitioners, and decision makers around the theme of restoring ecological resilience and resilient communities in changing landscapes. <a href="https://restoration2018.org/?utm_source=Northwest%20Fire%20Science%20Consortium&utm_campaign=4e75d3da22-Digest_01_18_18&utm_medium=email&utm_term=0_e4796b1409-4e75d3da22-82505313

Training: Armed to Farm

October 15-19, Glendive, MT. Sponsored by NCAT's <u>ATTRA Sustainable Agriculture</u> program and USDA Small and Medium-sized Farm Program. ATF's engaging blend of farm tours, hands-on experience, and interactive classroom instruction gives participants a strong foundation in the basic principles of operating a sustainable farm. Participants will learn about business planning, budgeting, recordkeeping, marketing, livestock production, fruit and vegetable production, and more. In addition, attendees gain a network of supportive farmer-veterans and agricultural advisors.

Free event for those selected to attend, including lodging at the <u>Yellowstone River Inn</u>, transportation to farms and most meals (except for dinner). Participants must pay their own travel costs to and from the event. Armed to Farm is sponsored by NCAT's <u>ATTRA Sustainable Agriculture</u> program and a grant from the USDA Beginning Farmer and Rancher Development Program. This training is limited to residents of the Intermountain and Northwestern states, including Washington, Idaho, Montana, Colorado, Wyoming, North Dakota, and South Dakota. For more information, please contact NCAT Ag Specialist Tammy Howard at 406-494-8683 or visit www.ncat.org/armedtofarm.

Symposium: Tribal Children's Environmental Health Symposium

October 16-18, Catoosa, OK. The theme of the symposium is "Protecting Children Where They Live, Learn and Play". Register at www.itecmembers.org. Early registration is strongly recommended. Contact Karen Dye at 918-453-5109 or e-mail karen-dye@cherokee.org.

Webinar: Tribal Climate Science and Adaptation in the Midwest and Northeast

October 24, 12:00 p.m. (ET). Sara Smith, Midwest Tribal Resilience Liaison, and Casey Thornbrugh, Northeast and Southeast Tribal Climate Science Liaison, will talk about the current initiatives in tribal climate science and adaptation in our region. Registration details coming soon.

Conference: Tribal EPA Region 9 26th Annual Conference

October 29 - November 1, San Francisco, CA. Click on the link for more information https://www.tribalepa.com/

Conference: Nurture Diversity, Build Resilience

October 31 – November 2, Albuquerque, NM. For the first time ever, the Quivira Coalition, Holistic Management International, and the American Grassfed Association will collaborate to convene ranchers, farmers, environmentalists, land managers, students, teachers, and others for a three-day conference to explore ideas of regeneration. https://quiviracoalition.org/regenerate/

November

Online Short Course: Managing for a Changing Climate: Societal Impacts of Climate Change

October 22 – November 26, Our short courses will provide an integrative understanding of the components of the climate system. We will discuss the impacts of a changing climate on sectors such as the economy, policy, ecosystems, and indigenous populations. We will also discuss how managers can adapt to these changes. Click on link to register.

https://docs.google.com/forms/d/e/1FAlpQLScEILCxZ4H5WHayNyc9JHr2KcQUoWqf5PzXNQ1H8UdAXzNV2A/viewform

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