

# EPA Tribal Science Bulletin



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NATIONAL EPA-TRIBAL SCIENCE COUNCIL (TSC)

Welcome to the second issue of the *EPA Tribal Science Bulletin*, where you'll find highlights about our Region 1 team members, information on important upcoming events, science updates of tribal interest, and information about the TSC's Spring 2016 Business Meeting to be held in June in Washington, D.C., in coordination with the National Tribal Caucus (NTC) and National Tribal Operations Committee (NTOC) meetings. I am very excited about the *Bulletin*, upcoming TSC meeting, and opportunity to engage the NTC and NTOC. The TSC would definitely like your feedback as we improve communications and sharing on environmental issues that affect tribal communities. Please feel free to send your thoughts to Curtis Munoz, TSC Tribal Co-Chair ([nethkuplega@yahoo.com](mailto:nethkuplega@yahoo.com)), and/or me ([jewett.david@epa.gov](mailto:jewett.david@epa.gov)). I hope you find the information in this bulletin useful. Enjoy.

—Dave Jewett, TSC EPA Co-Chair



## TSC Tribal Caucus Member Spotlight: Region 1

Dr. Theodore Willis is the newly appointed Region 1 representative to the TSC. He received his degree in limnology and oceanography from the University of Wisconsin-Madison in 2003. He specializes in aquatic ecology, the interaction among living and nonliving things in aquatic environments. Specifically, he studies fish and fish ecology in lakes, rivers and the nearshore marine environment.

Dr. Willis moved to Maine in 2005, allowing his wife Karen to return home; she grew up as a university brat in Old Town, Maine, just down the road from the Penobscot Indian Nation reservation at Indian Island. In 2013, Dr. Willis was recruited by the Pleasant Point Passamaquoddy to assist the tribe's environmental program in capacity building and river restoration activities. Since then, he has helped

the tribe secure funding for anadromous fish restoration in the St. Croix River and helped the tribe connect with capacity building opportunities through the University of Maine. He also has an adjunct appointment with the University of Southern Maine in Portland in the Environmental Science and Policy Department. He can be reached at [thewillis06@aim.com](mailto:thewillis06@aim.com). ○

### KEY DATES & EVENTS

- TSC Spring 2016 Spring Business Meeting, June 7–9, Washington, D.C.
- Region 10 Regional Tribal Operations Committee (RTOC) Quarterly Meeting, June 14–17, Lapwai, Idaho
- [National Congress of American Indians 2016 Mid Year Conference and Marketplace](#), June 27–30, Spokane, WA
- [Region 9 Summer RTOC Meeting](#), August 9–11, San Francisco, CA
- [Tribal Lands and Environment Forum](#), August 15–18, Mohegan Sun Resort, Uncasville, CT
- The Institute for Tribal Environmental Professionals now offers [online training courses](#) in a variety of areas

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## SCIENCE UPDATE

### Penobscot Indian Nation Risk Assessment Project

The Penobscot Indian Nation (PIN) in Maine has been working with EPA scientists to assess the environmental and human health risks associated with the Penobscot River watershed, which is the main source of cultural and natural resources for the tribe. A mercury fish advisory has been in place on the river for years, but the PIN requested assistance in learning more. The findings resulted in the report, *The Penobscot River*

*and Environmental Contaminants: Assessment of Tribal Exposure Through Sustenance Lifeways*. The report chronicles EPA's first tribal risk assessment and the first study to examine the mutagenicity of environmental samples from a tribal nation in the United States. The project was funded by EPA's Regional Applied Research Effort (RARE) program.

To ensure that the risk assessment was accurate and relevant to the tribe, the team used the Wabanaki Traditional Lifeways Exposure Scenario, developed by

Maine tribes and EPA Region 1, which incorporates the PIN's cultural uses of local natural resources. The RARE project analyzed flora and fauna for dioxins, polychlorinated biphenyls and mercury, finding that the consumption of each animal species, except duck, at the Wabanaki Exposure Scenario is associated with a risk of potential concern. The report validated the PIN's concern that PIN members may be at risk simply by carrying out cultural and traditional activities. The project data also will be used to inform the PIN's involvement in the relicensing of the Mattaseunk Dam on the Penobscot River. The

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project provides an excellent example of what government-to-government collaboration between tribal nations and the U.S. government should be. The report can be found at [www.epa.gov/sites/production/files/2015-12/documents/final-rare-report-august-2015.pdf](http://www.epa.gov/sites/production/files/2015-12/documents/final-rare-report-august-2015.pdf). ○



### New Guidance Affirms EPA's Commitment to Honoring

EPA recognizes the importance of respecting tribal treaty rights and its obligation to do so. The new *Guidance for Discussing Tribal Treaty Rights* (Guidance) enhances EPA's consultations under the *EPA Policy on Consultation and Coordination with Indian Tribes* (Consultation Policy). The Guidance outlines affirmative steps for EPA tribal consultations in situations where tribal treaty rights or treaty-protected resources may be affected by an EPA action.

The Guidance stems from a December 2014

memorandum in which EPA Administrator Gina McCarthy commemorated the 30th anniversary of EPA's Indian Policy. The memo provided a clear statement on the need to honor and respect tribal treaty rights in EPA's actions. The memo also indicated that EPA programs should be implemented to enhance protection of tribal treaty rights and treaty-covered resources when EPA has the discretion to do so.

The Guidance helps EPA staff with respect to Agency actions focused on specific

geographic areas when tribal treaty rights relating to natural resources may exist in, or treaty-protected resources may rely on, those areas, and EPA's action may affect the tribal treaty rights. In these instances, during consultation with federally recognized tribes under the Consultation Policy, EPA

will seek to obtain tribal treaty rights information and recommendations in accordance with the Guidance.

The Guidance, Consultation Policy, questions and answers, and other related documents may be found at [www.epa.gov/tribal/forms/consultation-and-coordination-tribes](http://www.epa.gov/tribal/forms/consultation-and-coordination-tribes). ○

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# SCIENCE UPDATE



## Indian Country Region 7 Earth Day 2016

Earth Day is an annual event now coordinated globally by the Earth Day Network and celebrated in 193 countries. The Sac and Fox Nation of Missouri in Kansas and Nebraska celebrate Earth Day by focusing on children. The tribe hosts an annual 4-hour program for three schools. This year, 106 students were treated to a visit by Smokey the Bear, courtesy of the Bureau of Indian Affairs. Volunteers and partners from a variety of agencies and organizations taught the kids about local waterfowl, the water cycle (using beaded bracelets),

**WE ALL NEED  
TO BE BETTER  
STEWARDS  
TO MOTHER  
EARTH.**

and spill cleanup at a scaled-down version of the Sac and Fox Truck Stop. In the cleanup exercise, students were shown how just one drop of fuel can ruin a large amount of water and how to stop, contain and clean up a spill with miniature versions of a spill kit. This real tabletop exercise engaged the students and got them working together to solve a problem before it became a threat to the environment.

The students also had a lot of fun participating in a water pollution relay race, in which two streams were set up with macros and fish identified, where the students would race each other to see which was easier to navigate, the clean or dirty stream. The stream was either “polluted” or displayed natural habitats, like logs and leaves. A black rat snake and an American frog were on display, and students were able to

touch and hold the creatures. Basic safety of water monitoring work was discussed, with field equipment on display.

Children were given supplies to make terrariums from recycled 2-liter bottles collected from the local recycling plant in Falls City, Nebraska. Native regional plants grown from seed were provided so that each child had two plants to put into their terrariums. Because the terrariums are closed environments, this project served as an excellent tool for teaching the kids the about water cycle, as it demonstrates evaporation, condensation and precipitation. The

lesson included information about the jet stream and climate change. The terrariums made great Mother’s Day gifts, created by the students’ own hands, too!

The Sac and Fox Nation has been reaching out to the community on Earth Day for the past 11 years, and each year the program grows. The tribe’s environmental staff strives to broaden the knowledge of our youth and local community and share the message that we all need to be better stewards to Mother Earth. The children are like sponges, and they are a delight to work with each year. ○



## TRIBAL GRANT OPPORTUNITY!

### EPA TRIBAL ECOAMBASSADORS: NEW GRANTS PROGRAM

EPA’s Tribal ecoAmbassadors new grants program (Request for Proposals [RFP] #EPA-OITA-AIEO-2016-001) is designed to help tribal colleges and universities to conduct research on environmental and climate change issues within their campuses and tribal communities. With this RFP, EPA is seeking to award several grants of up to \$50,000 to enable awardees to prepare course curriculum, conduct research projects, select student participants, and identify equipment and materials necessary to successfully complete their science research studies within 1 academic year. Specific problems that may be addressed include, but are not limited to, climate change mitigation, climate change adaptation, air quality, water quality or waste management. EPA will be accepting applications for this RFP through **Friday, June 17, 2016, at 11:59 p.m. Eastern Time**. For more information about this RFP, please visit [www.epa.gov/tribal/tribal-ecoambassadors-program](http://www.epa.gov/tribal/tribal-ecoambassadors-program) or contact Rosalva Tapia at [tapia.rosalva@epa.gov](mailto:tapia.rosalva@epa.gov). ○

## TSC EPA Caucus Member Spotlight: Region 1

Mr. Robert (Bob) Hillger has served on the TSC since its inception and is currently the Senior Science Advisor and Office of Research and Development Liaison for EPA New England. He holds a master's degree in civil engineering along with bachelor's degrees in biology, geology and psychology from Iowa State University and Tufts University. Bob started his EPA career in 1985 with EPA's Office of Research and Development in Edison, NJ, where much of his work focused on remediating some of the worst hazardous waste

sites in the country. Bob then decided it was time to take a break from the Jersey rat race and headed to California on his motorcycle. His 1-year detail with the Region 9 tribal program allowed him to work directly for the Navajo Nation environmental program, performing field work and site investigations in the Four Corners. He also has worked in Washington, D.C., and Kansas City, MO. Bob met his future wife while vacationing on the Cape and settled back into his hometown of Newburyport, MA, and started a family. He

became the Senior Science Advisor to EPA Region 1, working with states, tribes, academia and communities. Bob has enjoyed many projects with tribal nations, including working with the Penobscot Nation on river ecological human health risk assessment involving cultural practices and an air quality monitoring station with the Micmac Nation. Bob finds his work with communities and tribes to be rewarding and meaningful. You can contact him at [hillger.robert@epa.gov](mailto:hillger.robert@epa.gov).



## TSC SPRING 2016 BUSINESS MEETING

WASHINGTON, D.C., JUNE 7–9, 2016

The TSC is excited about its upcoming face-to-face meeting, which will provide a unique opportunity to meet with EPA's National Tribal Caucus (NTC) to discuss science issues of tribal interest. The NTC comprises a national body of high-level tribal advisors who are selected on a regional basis to represent all tribes within their regions. The NTC's primary focus is to identify and address tribal environmental issues that are national in scope, and the TSC is looking forward to strengthening its partnership with the NTC and developing a shared set of tribal science priorities for collaboration between the TSC and the NTC. The TSC members also will be able to attend the meeting of EPA's National Tribal Operations Committee, which comprises the NTC and EPA's Senior Leadership Team and serves as the forum for the NTC and EPA senior leadership to work together on policy and resource matters related to tribal capacity building and environmental programs in Indian country.

In addition to addressing TSC business, the TSC members also will hear presentations by the National Congress of American Indians and the Director of the National Museum of the American Indian. A variety of scientific presentations will focus on children's health, EPA tools and resources of tribal interest, and two of EPA's Office of Research and Development National Research Programs: (1) Chemical Safety for Sustainability and (2) Air, Climate and Energy. The meeting also includes a Tools Demonstration Session highlighting the E-Enterprise for the Environment Local Government Portal, which represents an EPA effort to increase tribal access to research results. The TSC is looking forward to a full, successful meeting.

## CLIMATE AND HEALTH ASSESSMENT

The U.S. Global Change Research Program has released its report, *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. This assessment strengthens and expands understanding of climate-related health impacts by providing a more definitive description of climate-related health burdens in the United States. The findings provide the context for understanding our changing health risks so that future threats from climate change can be identified and addressed. The overall findings underscore the significance of the growing risk climate change poses to human health in the United States. The report can be found at [health2016.globalchange.gov](http://health2016.globalchange.gov). Find additional resources at [www3.epa.gov/climatechange/impacts/health.html](http://www3.epa.gov/climatechange/impacts/health.html).

DO YOU HAVE QUESTIONS ABOUT THE TSC OR THE NEWSLETTER? CONTACT MONICA RODIA, TSC EXECUTIVE SECRETARY, EPA OFFICE OF SCIENCE POLICY, AT [RODIA.MONICA@EPA.GOV](mailto:RODIA.MONICA@EPA.GOV) OR (202) 564-8322.