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Multimedia Programs Enhance ITEP's Tribal Environmental Support

Most of those involved in environmental work recognize that problems impacting air, water, and land rarely restrict themselves to a single medium. One well known example is mercury, which is emitted from power plant smokestacks and other sources, enters the water, undergoes biochemical changes that transform it into more-toxic methylmercury, and enters the aquatic and shoreline communities of exposed organisms and, often, the bodies of humans who harvest the local bounty.

We also recognize that many tribes view the environment from a holistic point of view and often express their desire to address pollution issues based on ancient traditional teachings regarding the unity behind diversity.

To respond to these understandings, and to support often-squeezed tribal programs that must tend to all their environmental concerns with limited staff and funding, ITEP is moving gradually toward a multimedia approach to tribal environmental support. But while the expansion of our original mission of tribal air-quality support advances a step at a time, one thing never changes: our policy of basing support on the immediate issues that tribal environmental professionals face. Air management support remains an important part of the work that we do, and that isn't likely to change soon, but ITEP will continue to evolve toward a program that supports all aspects of environmental protection in Indian Country.



Waste Management and Emergency Response: a Multi-Tiered Approach

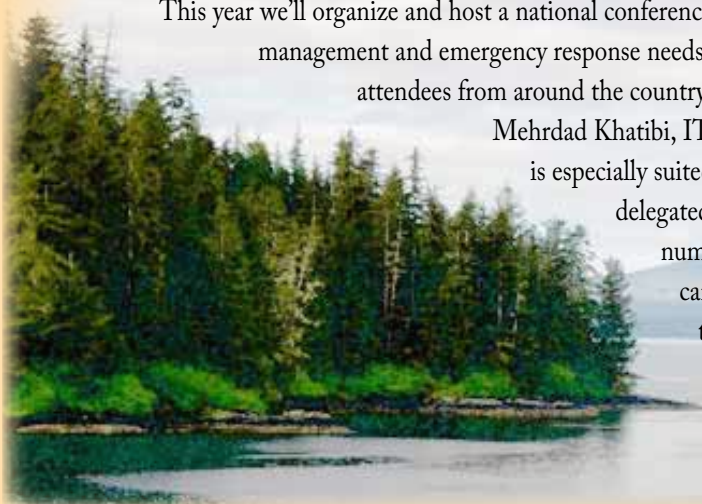
In November of 2008, ITEP signed a five-year cooperative agreement with U.S. EPA's Office of Solid Waste and Emergency Response (OSWER) to support the tribes in their work on waste-management and emergency response issues, including hazardous-waste sites. With the recent formation of a national tribal Steering Committee (modeled on the Tribal Air Monitoring Support [TAMS] Center Steering Committee), ITEP will develop in this fiscal year a series of training courses, two to be offered in Alaska, two in the lower 48 states.

This year we'll organize and host a national conference, to be held annually, that will address the full range of tribal waste-management and emergency response needs. Tribal staff and EPA-OSWER representatives will be among the attendees from around the country meeting to address issues of mutual interest and concern.

Mehrdad Khatibi, ITEP's Interim Director, says the funding structure for this new program is especially suited to address tribal needs. Rather than being funded from a single EPA delegated program statute, support for these new efforts was pulled from a number of programs within OSWER's purview. In effect, that means we can be much more flexible in developing and delivering support. Much of the credit for the unusual funding arrangement goes to Marsha Minter, Felicia Wright, and others at EPA-OSWER.

One exciting possibility for this new program is our ability to tap

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From the Interim Director

Mehrdad Khatibi



Recently several ITEP staff members, TAMS Steering Committee members, and EPA staff had the unique opportunity to travel part of the Southwest, where we were hosted by members of the environmental staff of five tribes: Pueblo of Isleta,

Pueblo of Acoma, the Navajo Nation, Hopi Tribe, and the Hualapai Tribal Nation. At each stop we were graciously received by tribal program staff, who shared their environmental and natural-resource management challenges as well as their food and cultures. We want to extend a heartfelt thanks to all the friendly folks we met along the way and express our appreciation for their willingness to share with us the issues that impact their communities. In our next issue of *Native Voices* we'll present a full account of the trip.

Our mini-journey provided an exceptional listening opportunity, one that mirrors the general approach to tribal environmental support we've followed since ITEP's inception. Listening to the tribes is the basis for all we do here at ITEP. Only by paying attention to the needs of the tribes can we effectively direct our resources toward helping Native communities grapple with the diversity of environmental challenges they face every day.

The trip certainly demonstrated the scope of their challenges. These five tribes alone—a small sampling of the more than 560 federally recognized tribes in the lower 48 states and Alaska—deal with a demanding variety of

environmental issues, from air and waste-management issues to radiation contamination to global-warming-related impacts on water management as well as reservation wildlife and domestic livestock. And what they shared with us was just part of a much longer list.

Our lead story for this issue describes our evolving response to the reality that fighting pollution in tribal communities is rarely a “stovepipe” effort limited to one environmental medium or program. We recognize the challenges and complexity of tribal environmental work, and that awareness has led us to extend our tribal-assistance capacity into other environmental media. Over the past few years we've expanded ITEP's training and support services to include not only air management but also solid-waste management, emergency response, environmental inspections, and K-20 environmental education and outreach on a variety of topics.

ITEP's decade-old Tribal Air Monitoring Support (TAMS) Center Steering Committee, composed primarily



of tribal air professionals, has always guided TAMS program development. As we ramp up our new Tribal Waste Response Program (supported by a new cooperative agreement

with U.S. EPA's Office of Solid Waste and Emergency Response), we're following the TAMS model and have

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**Institute for Tribal
Environmental Professionals**
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ITEP Launches Solid Waste-Emergency Response Training and Support Program for Indian Country



**By Todd Barnell,
TWRAP Program
Manager**

ITEP's Tribal Waste and Response Assistance Program (TWRAP) is happy to announce the formation of a national tribal steering committee to help shape the direction and training content of a new waste-management support program we've recently taken on. Members of the steering committee will work closely with ITEP on all aspects of this five-year project.

In addition to assisting with the development of an annual conference on waste and emergency response issues, the creation of new training courses and assistance activities, and research on hazardous substances and Superfund and contaminated sites,



select individuals who would provide broad geographical representation and bring to the effort a variety of experience in the disciplines we'll be addressing. We have achieved these goals, and I am very excited to have the opportunity to work with the individuals selected to serve on this committee.

The new members met for the first time in early November, at the ITEP offices in Flagstaff, Arizona. At

The Tribal Waste Response Steering Committee (L to R): Tim Kent, Quapaw Tribe of OK; Danford Wadsworth, Hopi Tribe, AZ; Danny Joe Stensgar, Colville Confederated Tribes, WA; Virginia LeClere, Prairie Band of Potawatomi, KS; Dino Chavarria, Santa Clara Pueblo, NM; Laura Weber, St. Regis Mohawk Tribe, NY; Katherine Kruse, Keweenaw Bay Indian Community, MI; Ron Wassillie, Newhalen Tribal Council, AK. Not pictured: Sherry Bishop, Fort Belknap Indian Community, MT.

this meeting the steering committee discussed bylaws, met with researchers assisting with the project, discussed the 2010 national conference, and explored training needs for courses to be delivered in 2010.



The new Tribal Waste Response Steering Committee.

committee members will ensure that tribal ideas and concerns are kept in the forefront of all decision making. The committee members will also work closely with staff from U.S. EPA's Office of Solid Waste and Emergency Response (OSWER), which is funding the new program.

The committee members possess a broad range of experience as well as a deep commitment to assisting tribes throughout Indian Country and Alaska. The selection team received many excellent applications for the committee, and the selection process was a long and tough one. A truly outstanding selection team, representing tribes from across the nation, U.S. EPA Regional offices, OSWER headquarter staff, and ITEP spent two months reviewing all the applications. Our goal was to

We look forward to working with the new team and the tribal community on this exciting project. If you have questions or comments, please contact Todd at todd.barnell@nau.edu.

AIAQTP Courses for FY2010

Intro to Tribal Air Quality	Jan. 12-15	Flagstaff, AZ
GIS Applications for Air Quality	Jan. 26-28	Las Vegas, NV
Air Quality Computations	Feb. 1-5	Flagstaff, AZ
Air Pollution Technology	Feb. 22-26	Las Vegas, NV
Air Qual. in AK Native Villages	Mar. 9-12	Dillingham, AK

For updates and additional information, please visit our website at www4.nau.edu/itep/trainings/.

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the resources of U.S. EPA's Radiation and Indoor Environments National Laboratory, located at the Las Vegas facility that houses the TAMS Center. The Las Vegas Lab's Environmental Restoration & Emergency Response team has indicated its enthusiastic support for our new OSWER-sponsored program and has offered to provide technical expertise, which could translate to new courses for tribes on emergency response and restoration efforts. Visit the EPA lab's website for more details on the services and support they offer (<http://www.epa.gov/orialasv/cermer/index.html>).

We'll continue to provide updates on this new effort. We'll also work to ensure that tribes have extensive input on this developing program. For more information, please see the article on page 3.

Environmental Compliance and Inspection Program

Another program that extends our work beyond air management is our environmental compliance and inspector-training program. Under the direction of ITEP staff members John Mead and Pam Malone, this program, supported by EPA's Office of Enforcement and Compliance Assurance (OECA), offers a roster of training courses presented at locations around the country. ITEP inspector-trainee courses (not all of them offered every year) include *Basic Inspector Training*; *Developing Environmental Codes and Ordinances*; *Media-Specific: Underground Storage Tanks*; *Media-Specific: NPDES*; and *Media Specific: FIFRA*.

See **MULTIMEDIA** on page 5



Felicia Wright of EPA-OSWER helped to build flexibility into the new program's funding structure.

TAMS Center



- ✿ **Technical courses**
- ✿ **Professional Assistance**
- ✿ **Filter weighing**
- ✿ **Audit services**
- ✿ **Equipment loans**
- ✿ **Info resources**
- ✿ **APDLN courses**

www4.nau.edu/itep/tams/

U.S. EPA Regional Tribal Air Program Contacts

For contact information on U.S. EPA's regional tribal air staff, visit the web at:

www.epa.gov/air/tribal/coordinators.html

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New courses are periodically developed based on feedback from the tribes and EPA. The courses can count toward EPA inspector accreditation and can also help staff in their development of tribal environmental codes and ordinances.

In San Diego, CA, in January 2010, we'll offer the course *Developing Environmental Codes & Ordinances*. We've presented this course once before to overwhelmingly positive response from tribes. Over 60 applications were submitted for 20 available slots, so we're offering it again, with an emphasis on code development for air quality, waste management and water quality—again taking a multimedia approach to environmental management. Feel free to contact John Mead (john.mead@nau.edu) or Pam Malone (pam.malone@nau.edu) for more details.

Climate Change

No area of environmental concern reflects multimedia impacts more than climate change, which affects tribes disproportionately in relation to other communities. ITEP's involvement in climate-change support to the tribes has expanded rapidly over the past year, and we've just hired a full-time climate-change program manager. Former AIAQTP Instructional Specialist Coordinator Sue Wotkyns has moved over to that position. Her work will involve managing all of ITEP's climate-change programs and activities.

As part of our climate-change work, we've developed and delivered a *Climate Change on Tribal Lands* course, under the American Indian Air Quality Training Program. The course was presented for a second time in November and will likely be offered again, as demand has been strong. We will also present the course *Adapting to Climate Change* in the Pacific Northwest in May 2010.

ITEP has also created a tribally oriented climate change website featuring tribal climate change issues and responses, audio files of elders offering traditional views on the topic, available grants and other resources, and a wealth of general information, including links to other websites. Visit the site at <http://www4.nau.edu/tribalclimatechange/index.asp>, or through a link on the ITEP website (www4.nau.edu/itep/). In addition, we're reworking the Tribal Emissions Inventory Software Solution (TEISS) to make it easier for tribal air staff to calculate and track carbon emissions on their reservations.

Recently U.S. EPA announced the agency would begin

regulating industrial carbon emissions, but that ruling will likely be challenged by Congress and in any case will take time to enact. Meanwhile, tribes across the U.S. continue to engage the problem assertively and creatively, a practice the federal government would do well to examine and emulate.

Environmental Outreach and Education

ITEP's Environmental Education and Outreach Program (EEOP) provides a wide range of classroom and onsite educational opportunities to students from kindergarten to the graduate level, with the aim of familiarizing students with environmental issues and encouraging them to consider careers in science, engineering and technology. For more information, e-mail mansel.nelson@nau.edu.

Programs such as "Summer Scholars" bring middle school and high school students to college campuses each year to explore topics as diverse as wildlife, water quality, air quality, climate change, and alternative energy sources. Annual internships through EEOP place college students in a variety of science and engineering positions at tribal, federal, state, local and private facilities, for one to ten weeks. During their internships, students assist with host-site projects and familiarize themselves with the activities and operations of their host organizations.

Interns often report that such experiences have profoundly impacted their understanding of real-world science and engineering and have helped them to better determine their own academic and professional directions.

The EEOP staff also manages a listserv that disseminates information on other programs for students and educators, including additional internship opportunities and university summer programs.

The TAMS Center: What's in a Name?

In 2010, ITEP's Tribal Air Monitoring Support (TAMS) Center in Las Vegas, Nevada, celebrates ten years of providing air quality monitoring and data management services to the tribal air community. Launched in 2000 with a primary focus on particulate pollution monitoring, the TAMS Center has expanded over time to offer a broad range of technical training and support, including filter weighing, data management, air toxics monitoring, and technical field support to the tribes. The TAMS Center Steering Committee is not only composed of tribal air quality managers, but also environmental directors with broad oversight responsibilities for their tribes.

In time we expect the TAMS Center to take a greater role in our multimedia support efforts. That expansion will require a name change for the Center to reflect its evolving mission. Stay tuned as the TAMS Steering Committee continues its deliberation on this issue. Meanwhile, please keep in touch with us and let us know how we can provide the most meaningful assistance to your tribe. Your ideas and needs represent our best guides for moving forward as we continue to develop and expand our training and other services in Indian Country. 🌟

Arctic Lakes Help Scientists Track Climate Change

An international team of scientists, led by Darrell Kaufman, a Northern Arizona University professor of geology and environmental science, recently completed a five-year study that places recent atmospheric warming in the context of long-term climate change. Because this warming occurred abruptly during the 20th century while atmospheric greenhouse gases were accumulating, these findings provide additional evidence that humans are influencing climate.

Kaufman and other researchers generated a 2,000-year-long reconstruction of Arctic summer temperature using natural archives of climate change from tree rings, glacier ice, and lake sediments from across the Arctic, a region that responds sensitively to global changes. Over the past five years, Kaufman, along with NAU students and researchers from more than a dozen universities, including the University of Arizona, collected sediment cores from Arctic lakes to decipher how the climate has changed over the last 2,000 years. The period includes the Little Ice Age from about A.D. 1500-1800, when the Earth's climate experienced significant changes, and extends back to relatively warm conditions during the first few centuries of the first millennium.

"Our reconstruction shows that the last half-century was the warmest of the last 2,000 years," Kaufman said. "Not only was it the warmest, but it reversed the long-term, millennial-scale trend toward cooler temperatures. The cooling coincided with the slow and well-known cycle in Earth's

orbit around the sun, and it should have continued through the 20th century."

Kaufman said that during the past few decades, the Arctic has warmed at two or three times the rate of the rest of the world, and this enhanced warming is expected to continue.

"The Arctic amplifies climate change as reflective snow and ice are replaced by dark, heat-absorbing water and vegetated surfaces," Kaufman explained. "This has consequences globally because, as the Arctic warms, glacier ice will melt, contributing to sea-level rise and impacting coastal communities around the globe, and thawing permafrost will release methane adding to the global greenhouse effect."

Supported by a \$2 million grant from the Arctic System Science Program of the National Science Foundation, results from the study, "Recent Warming Reverses Long-Term Arctic Cooling," appeared in *Science* magazine's Sept. 4 issue.

For more information, visit: www.arcus.org/synthesis2k/index.php. (Excerpt of an article by NAU Public Affairs Coordinator, Diane Rechel, which appeared in *InsideNAU*, an online news source for Northern Arizona University). 🌐



Left: NAU Geology professor Darrell Kaufman points out landscape features during a field trip with his geomorphology class. Bottom: Researchers are examining the sediment from lakes such as Cascade Lake in southwestern Alaska to determine changes in climate through glacier melting rates, as reflected in the amount of sediment accumulated in the lake each year.



Forest County Potawatomi Wins Major Victory in Class I Appeal Challenge

The following is an excerpt from a decision handed down by a U.S. Court of Appeals Circuit Court on Sept. 9, 2009, in a case filed by the state of Michigan challenging Forest County Potawatomi Community's request for Class I airshed status:



Petition for Review of the Final Administrative Rulings of the United States Environmental Protection Agency

ARGUED MARCH 30, 2009—DECIDED SEPTEMBER 9, 2009

Before KANNE, WOOD and WILLIAMS, Circuit Judges. WOOD, Circuit Judge.

re-Case: 08-2582 Document: 34 Filed: 09/09/20092 No. 08-2582

The cultural and religious traditions of the Forest County Potawatomi Community (“the Community”) often require the use of pure natural sources derived from a clean environment. Many years ago, the Community became alarmed by increasing pollution levels in its lakes, wetlands, and forests. To remedy this problem, it submitted a request to the Environmental Protection Agency (“EPA”) to redesignate certain tribal lands from Class II to Class I status under the Prevention of Significant Deterioration (“PSD”) program of the Clean Air Act (“the Act”). This would have the effect of imposing stricter air quality controls on emitting sources in and around the Community’s redesignated lands.

After nearly fifteen years of administrative proceedings and dispute resolution efforts between the Community and neighboring Wisconsin (which were successful) and Michigan (which were not), the EPA promulgated a final ruling redesignating the Community’s lands to Class I status. It also issued two companion announcements concluding dispute resolution proceedings with Wisconsin and Michigan. Michigan seeks review of these three final administrative rulings. It asserts that the EPA pursued the redesignation in an improper manner and, as a result, needlessly complicated Michigan’s air quality control programs.

The Community has waited over fifteen years for finality on the redesignation of its lands. Michigan’s challenge to the EPA’s redesignation actions raises some important issues about the PSD program’s regulatory structure, but Michigan has failed to allege a cognizable injury in fact and thus lacks standing to pursue this case. As a result, the Community need not wait any longer.

We DISMISS the petition for review.

Native Images Grace White House Walls

Included in the Obama family's art selections for their time in the White House are a dozen paintings by American artist George Catlin (1796–1892) as well as other art reflecting the family's interest in Native American culture. During several journeys he undertook beginning in 1830, Catlin visited a total of fifty Native American tribes and made numerous portraits of chiefs and tribal members, wildlife images, hunting and other cultural scenes, and images of wild American landscapes. 🌿



"A Foot War Party in Council-Mandan," painted by Catlin between 1835–37. Photo: Paul Mellon Collection/National Gallery of Art.



"Buffalo Hunt with Accidents," painted by George Catlin between 1861 and 1869. Photo: Paul Mellon Collection/National Gallery of Art.

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assembled a steering committee composed of tribal environmental staff, all of them volunteers admirably contributing their time and effort to make the new program work. The steering committee's job, like that of their TAMS counterpart, is to bring the concerns of the tribes to the table as we design support efforts that reflect the reality on the ground in Indian Country. We encourage you to keep the communication lines open with them and with us, to share your thoughts and the needs of your tribe, so we can continue to fine-tune our efforts.

We'll always maintain a strong focus on air-quality management—the mission on which ITEP was founded and the effort that makes up the lion's share of our work—but we'll continue to branch out as new opportunities arise to support the tribe across all environmental media. And as always, we'll keep listening. 🌿

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