Native Voices

One Tribe. One Earth

Northern Arizona University *Volume VI, No. 3, Summer 1999*

In this Issue

ITEP Providing Support to Alaskan Tribes

Since 1993, the Institute for Tribal Environmental Professionals has worked to support the environmental training and education needs of tribes in the lower 48 states. Recently, ITEP began shifting a portion of its resources toward the 226 federally recognized tribes in Alaska. We are pleased to expand our tribal support efforts northward, even as we recognize the challenges inherent in our new relationship with Alaskan tribes.

Native peoples in our 49th state face many of the same environmental challenges as tribes to the south. But Alaskan tribes are also unique in terms of tribal organization, land ownership, political jurisdictions, legal frameworks, and their greater reliance on subsistence lifestyles, often amid harsh, rugged landscapes. Understanding these differences will be a major goal for ITEP, one that we're confident we can meet with the help of the tribes and the state's U.S. EPA tribal coordinators. Both have already demonstrated strong support for ITEP's work.

Many Alaskan tribes are located in remote regions, far from cities and other "modern" resources. For example, traveling to Fairbanks or Anchorage, for many tribal members, involves long bush plane trips over endless miles of forest and tundra. A large percentage of indigenous people in Alaska still hunt, fish, and gather much as their ancestors have done for untold centuries—and much as tribes in the lower 48 states did before being integrated, to one degree or another, into mainstream American culture. Because of this close connection to the natural world, Alaskan tribal members often have an immediate understanding of environmental damage—in Alaska, when tribal water, air, and landscapes are degraded, day-to-day survival may be directly affected. ITEP's role in supporting Alaskan tribes will involve supplementing that knowledge with up-to-date environmental management training and education; it will also mean providing Alaskan tribes with ideas and resources they can draw on as they negotiate the governmental/administrative side of resource management.

The two-way learning process that will be so much a part of ITEP's Alaskan efforts is one that we look forward to with excitement and pride. Alaskan tribal members have already expressed their desire to learn more about how the "southerly" tribes are dealing with environmental challenges. Sharing that information—a large part of ITEP's educational efforts in the months and years to come—may offer an important frame of reference on which Alaskan tribes can model their own environmental programs, as they seek to expand their sovereignty in the realm of resource management.

We at ITEP believe that from our relationship with Alaskan tribes we will learn much about their cultures, traditions, and spirituality. As we share our resources with Alaska's indigenous people, we will surely gain as much as we give.

From the Director

As ITEP shifts a greater portion of our training and education resources northward to Alaska, we look forward to expanding our relationship with Alaskan tribes. Not only do we have the opportunity to benefit a large number of tribal members with our resources, expertise, and experiences, but we will have the privilege of learning important cultural and possibly spiritual lessons from those tribes we serve.

Alaskan tribes are unique in many ways. Their heavy dependence on subsistence lifestyles, for example, recalls the ways of tribes in the contiguous 48 states up until just a few decades ago—lifestyles that have in many cases been replaced through integration into the dominant American economic scheme. Many Indian people long for such a direct connection to the environment. We also recognize that tribes living a subsistance lifestyle may, in some ways, be more in tune with the natural rhythms of our world—a state of being that is surely what many of us are seeking.

Political/economic differences between Alaskan tribes and those to the south are not so easy to comprehend. Unlike tribes in the contiguous states, Alaska's indigenous people are bound to their land and resources by rules unfamiliar to most of us in the lower 48. Though 226 federally recognized tribes exist in Alaska, it is primarily tribal corporations, rather than reservations, that now define the boundaries of tribal power and land ownership. These are economic designations that carry unique management rules and relations with the state and the federal government.

Until oil was discovered on Alaska's North Slope in 1968, the state and federal governments had little reason to finally determine which among Alaskan peoples and villages were "tribes" and which were not. Three years after that new economic factor emerged, the Alaskan Native Claims Settlement Claims (ANCSA) was promulgated, and the "tribal corporation" system was born.

Four types of legal designations now define Alaskan tribal land and resource relationships: village corporations, regional corporations (made up of several villages/tribes), traditional village councils, and individual allotments. ANCSA all but eradicated the concept of "reservations" in Alaska—only one reservation exists within the state—replacing the old system with a collection of entities defined along economic rather than cultural lines. Tribes that chose to remain structured under traditional village councils relinquished claim to their share of $962.5 million allotted under ANCSA, whereas tribes who chose to establish corporations shared in the settlement money. Presently, Alaskan tribes are co-divided into twelve regional councils (along with a 13th for tribal members living outside the state) and over 200 village corporations.

As if the situation isn't sufficiently complicated, the U.S. Supreme Court's 1998 Venetie decision further muddied the waters on what might or might not constitute Indian country in Alaska. We're optimistic that Indian country does in fact exist in Alaska, and we will continue to move forward under that assumption, as we will continue to support tribal sovereignty in all its manifestations.

In the midst of this Byzantine political situation, ITEP comes to Alaska to support tribal environmental professionals in their land-management relationships with different government entities. Thus, one of our first tasks will be to learn the complex, mutable rules that guide tribal–government relationships in Alaska. This is a huge task, and one that will rely strongly on the support we receive both from tribes and government agencies.

We enter the relationship with great optimism, however, as we have already received strong encouragement and support both from the tribes and the U.S. EPA. We are grateful for that support, as we are eager to move forward with our Great Alaskan Adventure.

Institute for Tribal Environmental Professionals
Northern Arizona University

Director
Virgil Masayesva

Assistant Professor and Curriculum Coordinator
Patricia Ellsworth

Associate Professor, Environmental Engineering
Bill Auberle

Assistant Professors, Environmental Engineering
Terry Baxter and Bridget Bero

Resource Specialist
Liza Daley

EEOP Coordinator
Mansel Nelson

Director, Prof. Training and Internship
Bill Jeffery

EEOP Curriculum Specialist
Desdra Dawning

Administrative Assistant
Christy Nations

Budget Manager
De Rasser

Editor
Dennis Wall

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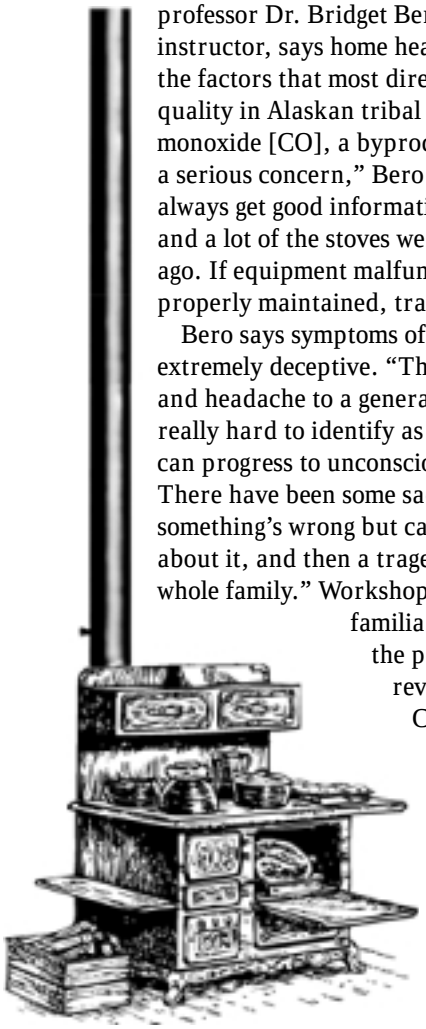
Indoor Air Quality a Concern for Alaskan Villagers

Air quality managers pay significant attention to ambient outdoor air, which is affected by such broad-scale pollutants as industrial discharges, auto exhaust, and dust. But air quality inside homes, schools, and buildings can have an equally profound impact on human health, and ensuring the quality of indoor air is an important part of any air management program. ITEP has modified an EPA course to acquaint tribal environmental professionals with basic elements of indoor air quality. Over the past year, U.S. EPA Region 10 has supported indoor air workshops for Alaskan tribal representatives. As ITEP expands its presence in Alaska, more such courses will be offered.

In Alaska's cold and often twilight environment, residents may spend significant time indoors. Woodstoves are a staple heating and cooking source in most remote villages. Northern Arizona University Engineering professor Dr. Bridget Bero, an ITEP instructor, says home heating/cooking is one of the factors that most directly impacts the air quality in Alaskan tribal homes. "Carbon monoxide [CO], a byproduct of combustion, is a serious concern," Bero says. "People don't always get good information on product safety, and a lot of the stoves were installed a long time ago. If equipment malfunctions or is not properly maintained, tragedies can occur."

Bero says symptoms of CO poisoning can be extremely deceptive. "They range from irritation and headache to a general malaise—which is really hard to identify as something wrong—and can progress to unconsciousness and death. There have been some sad cases: people know something's wrong but can't seem to do anything about it, and then a tragedy occurs involving a whole family." Workshop training includes familiarizing participants with the problem and its sources, reviewing symptoms of CO poisoning, and examining various types of CO detectors on the market.



Another important factor related to indoor air quality is the moisture content within closed spaces. Though moisture may seem unrelated to air quality, climatic and home-design factors in some areas of Alaska create fertile grounds for the growth of molds, some of them extremely toxic and/or carcinogenic. Tribal workshop attendees learn about indoor airflow and how to alter that flow via monitoring and structural changes. One goal is to create "positive and negative pressures" that help reduce moisture buildup and properly vent rooms. Participants come away with techniques that they can bring back to their communities so that direct action can be taken to improve the situation.

Radon, a carcinogenic gas that can invade homes and buildings through dirt floors, cracked foundations, and poorly insulated basement walls, poses difficult challenges because it is not readily detectable and its dangerous effects occur over long periods of time. Learning to create positive internal air pressure to resist "soil gas" infiltration is a major part of radon-prevention technology. Radon detectors are often distributed free to community members through a variety of programs; drawing upon such support can result in a significant decrease in health-related problems caused by this gaseous trickster.

Volatile organic compounds, such as gasoline and other fuel products that may have seeped from old or damaged underground storage tanks near homes and offices, are easier to detect—they generally give off a distinctive odor—but they can have profoundly negative impacts on those who inhale them over time.

Other topics in ITEP's training course are building investigations, additional pollutant sources, pesticides, CO2 monitoring, and ways of handling air-problem calls from the community. During indoor air workshops that ITEP presented in Fairbanks and Anchorage in the past year, participants related many indoor air quality stories. They also emphasized the importance of the subject to members of their communities. At ITEP, we look forward to continuing our work on this important air quality topic.

1999 AIAQTP Workshops

Sept 14–17	**R10—Intro**	**Anchorage, AK**
Sept 27–30	**R5 Tribal Air Qual**	**Traverse City, MI**
Oct 5–8	**R10—Admin**	**Spokane, WA**
Oct 12–14	**TAP**	**Umatilla**
Nov 1–5	**PM/PM 2.5**	**Las Vegas, NV**
Nov 8–12	**PM/PM 2.5**	**Las Vegas, NV**
Nov 16–19	**Intro**	**TBA**
Dec 7–10	**Title V**	**Santa Barbara, CA**

1999 Regional Tribal Program Managers/Coordinators

EPA REGION I
Jim Sappier
Indian Coordinator
EPA Region 1 (CSP)
1 Congress St.
Boston, MA 02203
617-565-3935, fax 617-565-4940
e-mail: Sappier.James@epamail.epa.gov
Robert Goetzl 617-918-1671
Valerie Ferry 617-918-1674

EPA REGION II
Christine Yost
Indian Coordinator
EPA Region II
290 Broadway
New York, NY 10007–1866
212-637-3564, fax 212-637-3772
e-mail: Yost.Christine@epamail.epa.gov

EPA REGION IV
Mark Robertson, Acting Indian Coordinator
EPA Region IV (AMB)
61 Forsyth St., S.W.
Atlanta, GA 30303-3104
404-562-9639, fax 404-562-9598
Robertson.Mark@epa.gov

EPA REGION V
Casey Ambutas
Indian Coordinator
EPA Region V (5ME-19J)
77 W. Jackson Blvd.
Chicago, IL 60604–3507
312-353-1394, fax 312-353-1120
e-mail: Ambutas.Kestutis@epamail.epa.gov

EPA REGION VI
Ellen Greeney
Indian Coordinator
EPA Region VI (6-XA)
1445 Ross Ave.,
Dallas, TX 75202–2733
214-665-6778, fax 214-665-2118
e-mail: Greeney.Ellen@epamail.epa.gov
Charlotte Runnels 214-665-6442
Paul Whitley 214-665-7454
Judith Daendrea 214-665-7362

1999 LEAD REGION-REGION VI
Eve Boss—Lead Region Coordinator
214-665-8110, fax 214-665-2118
e-mail: *Boss.Eve@epa.gov*
Address same as Region VI above

EPA REGION VII
Kim Olson
Indian Coordinator
EPA Region VII
726 Minnesota Ave.
Kansas City, KS 66101
913-551-7539, fax 913-551-7863
e-mail: Olson.Kim@epamail.epa.gov

EPA REGION VIII
Sadie Hoskie
Tribal Program Manager
EPA Region VIII (80EA)
999 18th St., Ste. 500
Denver, CO 80202–2405
303-312-6343, fax 303-312-6741
e-mail: Hoskie.Sadie@epamail.epa.gov

EPA REGION IX
Clancy Tenley
Tribal Program Manager
EPA Region IX (E–4)
75 Hawthorne St.
San Francisco, CA 94104
415-744-1607, fax 415-744-1604
e-mail: Tenley.Clancy@epamail.epa.gov

EPA REGION X
Scott Sufficool
Tribal Office Director
EPA Region X
1200 Sixth Ave.
Seattle, WA 98101
206-553-1603, fax 206-553-6220
e-mail: Sufficool.Scott@epamail.epa.gov

REGION X ALASKA FIELD OFFICE
222 W. 7th Ave., Suite 100
Anchorage, AK 99513
907-271-3424
Sandra Borbridge
e-mail: *Borbridge.Sandra @epa.gov*

GLOBE NM Encourages a Wider World View

The staff of the Environmental Education Outreach Program (EEOP), in collaboration with Carlos French of GLOBE New Mexico, presented a workshop at Eagle Ridge Middle School in Rio Rancho, New Mexico, May 24–May 28, 1999. The EEOP sponsored teachers from Newcomb Elementary School in Newcomb, Pablo Roybal Elementary School in Santa Fe, and Torreon Day School in Cuba. Maxine Ewankow, EEOP satellite director from the Eight Northern Indian Pueblos Council, also attended.

The five-day workshop introduced New Mexico teachers to the GLOBE program (Global Learning and Observations to Benefit the Environment) and offered their schools the opportunity to join the growing GLOBE network of schools around the world. The workshop covered GLOBE protocols that included atmosphere, hydrology, land cover/biology, and soil.

Educators were also introduced to Global Positioning System (GPS) technology, which provides precise positioning data anywhere in the world. Much work was done in the computer lab to graph and enter collected data for GLOBE scientists. Working in teams, participating teachers learned to use a variety of scientific sampling tools. They were supplied with curriculum materials that included the GLOBE protocols and supplemental lessons. The training provided teachers with another tool to encourage their students to explore science on a global level.

Another teacher workshop was offered at Northern Arizona University, July 28–August 5, 1999. The EEOP will be working with the Science and Math Learning Center and the Center for Environmental Sciences and Education to offer the GLOBE-NAN (Native American Network) program to these Arizona schools. The program will be funded by the Arizona Eisenhower Mathematics and Science Education Program. For more information on this GLOBE workshop, see the webpage at: **http://jan.ucc.nau.edu/~man5/globe/** .

Desdra Dawning—ITEP

EEOP To Support AK Tribal Students

EEOP is expanding its tribal environmental education efforts to include Native residents of Alaska's villages and urban areas. The K-12 outreach program for teachers and students begins with the October selection of a "satellite" partner school or other institution. Satellite partners act as local liasons for the program and provide much of the actual educational outreach in their regions.

In conjunction with local partners, EEOP consults with teachers and students to determine their educational needs; provides educational aids and curriculum packages; and trains educators in various environmental skills, such as Global Information Systems technology and use of the Internet for networking and data-gathering/dissemination.

Working with outlying Alaskan villages presents unique challenges, says EEOP program coordinator, Mansel A. Nelson. "Alaska is home to a unique and diverse group of indigenous people," he says, "and the state has a huge land mass with a number of diverse environments. Travel is still very difficult in Alaska, with limited highways that are often closed in winter." The success of EEOP's Alaskan effort will depend largely on the outreach capabilities of its soon-to-be fourth satellite partner.

EEOP's Alaskan goals include helping to create a networking system among students in different villages to promote environmental discussion and problem solving among them. Students will also be encouraged to pursue environmental careers such as land management, wildlife conservation, and ecological science. Through the program, village-dwelling students attending urban schools will in some cases have the opportunity to pursue academic areas of interest during their visits home for the summer, via the Internet and supplied curriculum packages. EEOP will also encourage the dissemination of educational resources out to the remote villages, where teaching assets are often limited by distance, funding, and other obstacles.

Once a satellite institution is chosen, EEOP will begin working with its Alaskan partner to develop program resources and select target schools. Nelson hopes to begin outreach activities in Alaska within a year. For more information, contact the website at **jan.ucc.edu/~man5/satellites/eeop-ak.htm .**

Solid Waste Workshops To Be Held in Alaska

During 1997 and 1998, ITEP developed the Introduction to Tribal Solid Waste Management curriculum, with funding and support from the U.S. EPA Headquarters Office of Solid Waste. We hope to offer the course several times in Alaska during the coming year. ITEP will work with the U.S. EPA Alaska staff and others to modify the curriculum so that it reflects some of the unique issues facing Alaska tribes.

The curriculum will also highlight the many ways in which Alaskan tribes and tribes in the lower 48 states may benefit from each others' experiences.

The workshops will likely be held in Anchorage, Bethel, and Kotzebue, and will include hands-on science activities, modules focused on community outreach and partnership, and problem solving tailored to each tribe.

A significant feature of the upcoming workshops is that each participant will bring to the workshop three specific tribal issues and will work to develop an action plan that addresses those issues.

Participants will thereby play an active role in identifying issues and developing responsive plans. Such hands-on exercises, we believe, will help to strengthen the intertribal solid waste management network in Alaska. *Liza Daley—ITEP*

Arctic Haze: Lifting the Veil off an Ecological Mystery

For decades, hazardous chemical pollutants have seasonally accumulated in the Arctic regions of the planet, carried there by air and ocean currents from other locales. In 1956, the term "Arctic Haze" was coined to describe this phenomenon. First identified by military weather reconnaissance, the smog-like appearance of the haze is now commonplace during late winter and early spring. The bright blue, crystal-clear skies characteristic of the polar regions fade and often turn a brownish-gray due to the high particulate and aerosol contents of the haze.

For many years, the cause and contents of the haze were a mystery. Late in the 1970's, researchers identified sulphates, soot, and hydrocarbons as its primary constituents. Source studies pointed to the former Soviet Union and Eastern European nations as the main producers of this cloud of pollution.

The mass of cold polar air that hangs over Eurasia during winter is pushed toward the Arctic latitudes, especially Alaska and Northern Canada, by prevailing air currents (affectionately called the "Siberian Express"). Because of the region's climatic conditions during spring—cold temperatures and little precipitation or air movement—the cloud hangs around for much longer than most pollution masses.

Scientists from the University of Alaska—Fairbanks are studying the haze and its environmental impacts. They have found relatively little increase in the acidity of aquatic systems, and snow and soil samples do not indicate high levels of pollutants from the cloud. These findings suggest that the chemicals are being deposited elsewhere; projects are now underway to determine where the fallout occurs.

Scientists are concerned that the haze may affect the climate. Because of the earth's angle during the spring, the northern regions experience more direct sunlight than farther south. The haze's gaseous components are transformed by the sun into liquid and particulate forms, which serve not only to obscure visibility, but also to warm the atmosphere and the ground, facilitating snowmelt and increased air temperatures and snowmelt.

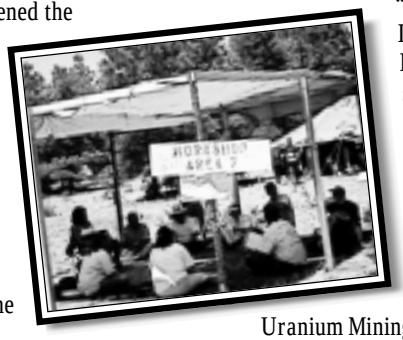
Although no harmful effects on the health of plants, wildlife, or humans in the region have yet been detected, scientists are keeping a close watch—even seemingly low levels of pollution can have a great impact on fragile ecosystems such as the Arctic North.

For more information on Arctic Haze, visit the following websites: **http://www.gi.alaska.edu/ScienceForum/ASF9/948.html ,** and **http://rainbow.Ldeo.columbia.edu/edf/text/environ.html .**

—Lydia Scheer, ITEP

Tribal Gathering Spotlights Mining Impacts on Native People

In mid-June near Mount Taylor in east-central New Mexico, numerous tribal members and others gathered recently for the 10th Annual Protecting Mother Earth Conference. Nuclear issues were a dominant theme of this large-scale gathering of indigenous and non-indigenous activists. Tom Goldtooth, president of the Indigenous Environmental Network, opened the conference, followed by Diné C.A.R.E. spokesman, Earl Tulley, who spoke on environmental issues of Western indigenous people.



The first morning's sessions focused on Southwestern U.S. environmental issues, with talks by representatives of the Havasupai, Yaqui, and Diné tribes on natural-resource extraction and depletion in the Southwest.

Local resident Dorothy Purley of the Laguna/Acoma people spoke on the effects of toxic uranium tailings left behind by uranium-mining companies just 3500 feet from her village, and of the company's lack of information-sharing on the health effects of radiation. In an afternoon breakout workshop titled "Uranium Mining," Cindy Gilday of the Dene Nation of Canada explained how activism brought justice to indigenous people fighting corporations and the U.S. government over uranium compensation.

On Friday morning the topic was "Uranium and Indigenous People." Dorothy Purley spoke emotionally about how she lost loved ones to the local open-pit uranium mine. Kathleen Tsosie of the Eastern Navajo Diné Against Uranium Mining, (ENDAUM), spoke briefly on uranium mines and the compensation act. In the afternoon, Jeanette Wolfley of the Shoshone-Bannock Tribes of Idaho covered environmental law and policies.

On the second morning, the topic was "Breaking the Borders of Colonialism." People from North and South America spoke on environmental concerns on indigenous lands. Zoila José Juan of Oaxaca, Mexico, discussed the impacts of foreign companies and their open pit mines on indigenous people and their agricultural harvests. An afternoon workshop focused on border justice and the Radiation Exposure Compensation Act. On Sunday, open discussions were held on the impacts of corporations who leave land damaged and useless. Activist Sonny Weahkee of the Petroglyph Monument Coalition spoke about the destruction of sacred lands and threats to indigenous rock art from highway construction near Albuquerque, New Mexico.

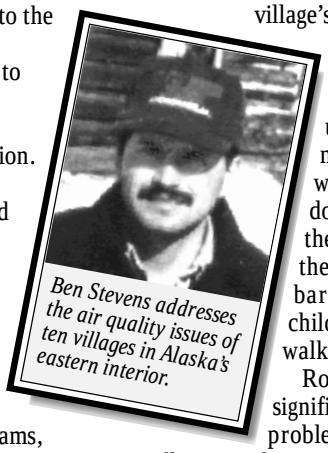
The conference helped educate numerous people on the impacts of mining and uranium exposure on indigenous people of North and Central America. Organizers of Diné C.A.R.E. and the Indigenous Environmental Network (IEN) did a good job in bringing interesting, well informed, committed speakers to the event.

For more information on Earth Circles and Diné C.A.R.E., see the webpage at **http://jan.ucc.nau. edu/~man5/dinecare/ .**

Tony Joe—ITEP

Promoting Air Quality in Alaska's Yukon Flats

Spreading the word about air quality issues is a big job in Alaska's sprawling eastern interior, but it's all in a day's work for Stevens Village resident Ben Stevens. Working under an EPA grant to the Council of Athabaskan Tribal Governments, Stevens' role is to help coordinate air quality protection efforts among ten villages in the Yukon Flats region. He accomplishes much of that work by way of bush plane and snowmobile, building and maintaining communication with contact people from each village, helping residents to identify local air-related problems, and advising them on how they might develop air-quality management programs, if they choose to do so.



Ben Stevens addresses the air quality issues of ten villages in Alaska's eastern interior.

Stevens began his air quality work in a roundabout way. His background and education were in hospital and healthcare administration. Among his positions in that field, he served as deputy director of Sitka's Mt. Edgecumbe Hospital. But in 1993, after he grew "tired of doing the rat-race thing" and for other personal reasons, he discarded his suit and tie, left the city, and returned to his home in Stevens Village. There, he soon became involved in the community's fledgling natural-resource management program.

The EPA air grant that supports his present work for the Council is designed to help ten Athabaskan villages in the eastern interior lay foundations for their own air quality programs. "We basically go into the village," Stevens says, "and work with the folks there. We say, 'These are some hazards in your community. Do you want to do something about them?' Most times, people step forward and say 'Yes, of course.' Maybe they've got plastics burning in a burn barrel, with kids playing right there on the street. Most often they want to do something about it."

His work and ITEP's Alaskan activities complement each other well. "ITEP provides technical air quality training," he explains, "and we work directly with the villages, through their designated contacts. If there's a training program that might help them in developing their air program, I let the contact people in each village know about it."

Among air quality issues that Stevens sees in the Athabaskan villages, two of the most significant are carbon monoxide and toxicity hazards from woodstoves and from "burn barrels," where much of a village's solid waste—including plastics—is incinerated. "We might help people understand that if they need to burn their waste, let's find ways to do it better, to decrease the risks. For instance, they might move the barrels away from where children play and people walk."

Road dust is another significant air quality problem among the remote villages in his region. "That's one tough cookie," he says of the problem, "and there really are no easy solutions. I really hate to say that something can't be fixed without money, but unfortunately, with roads that's the way it is. The old way of knocking down dust was to spread a fine layer of oil over the roads, but that's unacceptable these days. It's not always easy to find solutions—and I don't necessarily look for the solutions. It's their village. They do the hard work of taking the steps to solve their own problems."

Stevens says bureaucratic wrangling is one of the biggest obstacles in getting such issues resolved. "People here are pretty straightforward," he says. "When they say they'll do something, you can be pretty sure that it's going to get done. You don't need to sign a contract, send copies here and there. But sometimes that's what has to happen, and getting it done can be a major roadblock."

Basic communications can also interfere with Stevens'efforts. He says that when he's dealing with the local people, he sometimes approaches them in terms of his Westernized education and training, and "they don't understand what I'm saying. So sometimes I need to go to someone with a different sort of understanding who can understand *me*, and have them communicate to the village folks. But I've been doing this for several years, and I'm learning."

He has also learned that village residents will only act on a problem when they choose to act. Understanding the issues and hazards within one's community can create such readiness to act. Stevens says ITEP has helped him with that mission through the education and support the Institute has provided for himself and his staff. In turn, Stevens is supporting ITEP's air quality work, offering his knowledge and experience to workshop attendees.

Above: Smoke is a way of life in the Yukon Flats. Right: Old and home-made woodstoves, and burn barrels located near residents, pose constant toxicity threats.

Meanwhile, Ben Stevens will continue to skim the treetops and navigate snow-covered hills and valleys to help his fellow villagers create healthier conditions for themselves and for their children.

ITEP Summer Interns Gain an Alaskan Perspective

Two Northern Arizona University students spent ten weeks this summer in Alaska, experiencing the sort of education that rarely takes place in a classroom.

Alexis Baca-Spry, a graduate student in MAT (Masters in the Art of Teaching Physical Science), spent ten weeks with the Alaska Inter-Tribal Council (AITC), compiling information on the transport of lead-acid batteries from the state's remote villages to urban collection centers. "Everyone uses batteries in the villages, and when the batteries die, they tend to just stay there," she says. "The logistics of transport in Alaska are unfathomable to most people in the lower 48 states. It's a huge place."

Baca-Spry's project is part of a larger AITC effort to remove toxic waste of all types from Alaskan villages. Such waste includes not only batteries but used oil, antifreeze, transformers that may contain PCBs, and "really whatever is lying around."

She says her work this summer was designed to help build the knowledge and capacity of villages so that they can handle such transport on a regular, reliable schedule. "We don't want to offer just a Band-aid on the problem."

A former Peace Corps volunteer in Central America, Baca-Spry says she saw parallels between conditions in Alaska and those in the Third World. "I had the wonderful opportunity to go to Napaskiak (near Bethel) and also Kipnuk. People have it rough out here. All over Alaska, many villagers still use the 'honeybucket' system of [human waste] sanitation, where waste isn't even buried but is thrown into a pond. It's so harmful because people have to handle it twice during the process. It's a perfect opportunity for diseases to spread. They also don't have much water in the villages, which isn't just a convenience problem but a serious health problem. I think many people in the lower 48 have no idea what's going on up here. I mean, this is the U.S., one of our states!"

Of her internship, sponsored by ITEP with funding from the U.S. EPA, Baca-Spry says "This has been a wonderful opportunity to see Alaska, and to actually get something done." Her career plans right now include finishing her graduate program and then taking time off to travel and determine her future direction. Eventually, she says, she'll likely pursue teaching in a "non-traditional setting."

ITEP's other student intern in Alaska this summer, Tanju Bayramoglu, worked just a few blocks from Baca-Spry, in the EPA's Region 10 Tribal Office. A mechanical engineering student who would like to apply his skills to environmental systems and processes, Bayramoglu spent his ten-week internship developing a database to track tribal information for EPA use in managing the General Assistance Program grants that it disperses to Alaskan tribes. The database is crucial to EPA efforts, he says, because "there are only four tribal coordinators for EPA region 10, and each is coordinating 40 or 50 grants, about four times the normal load—they barely have time to do their filing. And the GAP program is growing exponentially; this year about 70 tribes are involved, but another 60 new grant requests have been filed this year."

Though he was able to complete roughly half of the database program during his brief stay in Anchorage, Bayramoglu says his only programmer training amounted to "fiddling with computers over the years" and a one-year stint at NAU's engineering computer lab.

Bayramoglu plans to attend graduate school at some point, but for now he'll work to gain life experience while pondering his academic and career directions. He does, however, have a general game plan: much environmental damage, he says, occurs because nonfunctional large-scale systems have been developed and economically locked into place. The real key to solving our ecological mess, he says, is to "develop new systems designed from the start so that we're not making a mess in the first place."

NORTHERN ARIZONA UNIVERSITY

Institute for Tribal Environmental Professionals
PO Box 15004
Flagstaff, AZ 86011-5004
Phone: (520) 523-0526 Fax: (520) 523-1266
e-mail: http://www.cse.nau.edu/~itep

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