



OPPTS Tribal News

Environmental VOICES

Office of Prevention, Pesticides,
and Toxic Substances and
Tribal Environmental
News Exchange

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Featuring Pesticides and Toxics Information

Research Needs within Indian Country and Alaska Native Villages

The need for research in Indian Country and Alaska Native Villages is an important issue facing Indigenous communities, tribal organizations, research groups, federal organizations, and EPA. In February 2001, EPA published the *Environmental Justice and Community-Based Health Model Discussion and Recommendations Report*. The report presents advice and recommendations concerning research needs within Indian country and Alaska Native villages based on results from pre-meeting preparation, on-site discussion, and public comment associated with the meeting of the National Environmental Justice Advisory Council (NEJAC), held May 23-26, 2000. The meeting and report were prepared by NEJAC, as requested by EPA's Office of Environmental Justice. (See story continued page 9).

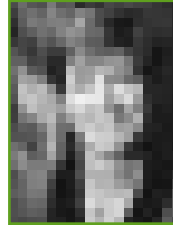
This initiative, as well as several other research projects featured within this issue, provide information and updates on research in pesticides, pollution prevention, and risk assessment within Indian country and Alaska Native Villages.

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New EPA Administrator, Christine Todd Whitman

OPPTS Tribal News would like to welcome new EPA Administrator Christine Todd Whitman. Administrator Whitman was sworn in on January 31, 2001 after serving as the 50th Governor of New Jersey. Whitman carries with her a strong history of environmental leadership, including establishing a new watershed management program, introducing a new funding source to preserve over 1.25 million acres of open space and farmland by 2011, and encouraging redevelopment of cities through programs to streamline cleanups of brownfields while serving as governor.



"... Whitman said she believed environmental and economic goals go hand in hand and that she would continue her record of working to forge strong partnerships among citizens, government and business to produce measurable environmental results of cleaner air, water and land."

(Source: EPA's Office of the Administrator, Biography)

From the Editors...

With great pleasure, the Office of Pollution Prevention and Toxics (OPPT) and the Office of Pesticides (OPP) present the Spring 2001 issue of *OPPTS Tribal News* featuring research in pesticides and risk assessment and new pollution prevention initiatives in tribal communities.

We offer our thanks and gratitude to all contributors providing us with program information and beautiful photographs to highlight in our publication.

Finally, we would like to remind our readers to visit the Tribal Web Site, which features tribal news and events, along with other tribal publications, and links to other EPA offices, such as AIEO, Water, and Pesticides, and other EPA Regions. Visit us at www.epa.gov/opptintr/tribal.

— Mary Lauterbach,
OPPT Tribal Coordinator
— Regina Langton,
OPP Tribal Coordinator

OPPTS Tribal News requests interesting success stories about pesticide and pollution prevention programs and projects in Indian country from our readers. If you want to share your experience with our readers, please contact Regina Langton (pesticides), 1200 Pennsylvania Avenue (MC7506C), Washington, DC 20460, langton.regina@epa.gov, or Mary Lauterbach (pollution prevention), 1200 Pennsylvania Avenue (MC7408), Washington, DC 20460, lauterbach.mary@epa.gov.

OPPTS Mission Statement

- ▶ **Protect and improve human health and the environment**
- ▶ **Achieve risk reduction, sustainability, and environmental justice**
- ▶ **Promote safer designs and use of materials, products, and disposal methods through pollution prevention**
- ▶ **Inform and educate the public on the risks associated with pesticides and toxic substances.**

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1200 Pennsylvania Avenue (7408), Washington, DC 20460, or
send an e-mail to lauterbach.mary@epa.gov.

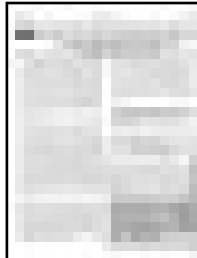
OPPTS Tribal News can be viewed on the Internet at
www.epa.gov/opptintr/tribal

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News & Events

EPA Announces New TRI Reporting Requirements for Lead and Lead Compounds

The U.S. Environmental Protection Agency announced on April 17, 2001 that it will proceed with its Toxics Releases Inventory (TRI) rule to significantly expand information available to the public about lead emissions in their communities. The final TRI lead ruling has been under review by the Administration as part of its broad-based review of new regulations. Under EPA's Persistent, Bioaccumulative, and Toxic (PBT) Chemical Rule, private-sector and government facilities including facilities located on tribal lands or operated by tribal businesses are required to report release and other waste management information if they manufacture, process, or otherwise use lead (except when contained in stainless steel, brass, and bronze alloys) or lead compounds in amounts above 100 pounds. Prior to this new ruling, lead and lead compounds were subject to release and other waste management reporting if manufactured or processed in amounts above 25,000 pounds and otherwise used in amounts above 10,000 pounds. The facility-based TRI information is submitted to the Agency and applicable state and tribal emergency response commissions each year on July 1, and the first TRI reports under the new rule must be submitted by July 1, 2002 for the 2001 reporting year. To gather more information on the new lead and lead compound reporting requirements, press release, and the TRI program, visit www.epa.gov/tri or contact the Emergency Planning and Community Right-to-Know hotline at 800-424-9346.



Update on EPA's Authorization Criteria for State and Tribal Inspectors

In September 2000, EPA distributed the Authorization Criteria to leaders of each federally-recognized Indian Tribe, state agriculture commissioners, and state environmental protection administrators. EPA requested and received many comments on the Criteria from tribes, tribal organizations, and states.

EPA's Office of Compliance is currently considering a number of changes to the Criteria based on the comments received and is drafting, as appropriate, specific responses to the issues raised. After the changes are drafted, management within the Office of Compliance will review the revised Authorization Criteria. For more information, visit

<http://es.epa.gov/oeca/main/statetribal/inspectcrit.html> or contact Jonathan Binder at 202-564-2516 or binder.jonathan@epa.gov.

EPCRA Section 313 RY1999 TRI Data Released

EPA's Office of Information Analysis and Access posted on the Internet the 1999 Toxics Release Inventory (TRI) Public Data Release Report (EPA260-R-01-001, April 2001) and the 1999 TRI State Fact Sheets (EPA260-F-01-001, April 2001). The 1999 TRI Public Data Release Report provides an overview of the 1999 TRI data and detailed analyses and supporting tables for TRI releases and other waste management. The 1999 TRI State Fact Sheets report provides a general overview of TRI and the 1999 TRI data in state summary tables and provides a snapshot of each state's releases and other waste management activities. The TRI 1999 Data Release Web site at www.epa.gov/tri/tri99/index.htm also provides links to TRI data access tools, including a new, user-friendly tool called the TRI Explorer. The TRI Explorer provides access to the TRI data to help communities identify facilities and chemical release patterns that warrant further study and analysis. Questions about the TRI Program may be directed to 202-260-1488 or tri.us@epa.gov.

OPPT Plans Grant Program for Indian Tribes

EPA is planning to issue notices of available funds for two grants exclusively for federally-recognized Native American Tribes. One grant program will conduct a baseline assessment of exposure risks of lead poisoning for tribal children. The project will include inspection and/or risk assessment of pre-1978 tribal homes; collection and analysis of blood, paint, dust and soil samples; and training of individuals to perform lead inspections and risk assessments. The second grant will provide for lead educational outreach activities to encourage Indian Tribes to consider continuing such activities in the future. EPA plans to award 25-50 grants in ranges of \$25,000 to \$75,000 under each grant program. These grants will be awarded entirely on the basis of EPA's evaluation of the proposals.

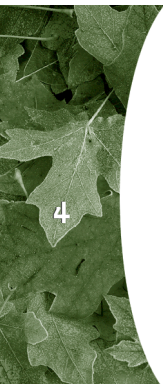
EPA offered a similar tribal grant program last year for blood-lead screening and outreach. This year's programs are expanded beyond blood-lead sampling and also include paint, dust, and soil sampling. EPA expects to publish the notices in August 2001 in the Federal Register and accept applications for a period of about two months. Copies of the Federal Register notice will be available through the National Lead Information Center and the EPA home page at www.epa.gov/lead. For further information, contact the EPA project officer, Darlene Watford at 202-260-3989 or watford.darlene@epa.gov.

National Worker Protection Assessment Workshop

In collaboration with the National Environmental Education and Training Foundation, EPA's Certification and Worker Protection Branch will host the National Assessment of the Worker Protection Program on July 30- August 1, 2001 in Lake Buena, Florida. The meeting will continue with discussions of the agricultural worker protection regulation, implementation and effectiveness of its provisions, enforcement at the state level, and possible future directions for the program. This is the third in a series of workshops and represents an opportunity for EPA, states, tribes, agricultural employers, worker representatives, and other program stakeholders to engage in problem-solving workgroup discussions on major aspects of the regulation. For more information, contact OPP's Sara Ager at 703-308-3003 or ager.sara@epa.gov.

Tribal Subsistence Summit in the Works

EPA is planning for a subsistence summit to be held in Spring 2002. A pre-summit planning group of technical experts in subsistence issues will meet this Fall to prepare for the Summit meeting. The goal of the Summit is to work with Indian tribes to build capacity to address environmental health issues associated with subsistence lifestyles. Tribes will learn to develop appropriate analytical and technical capacities to design, implement, and manage food-related subsistence risk assessment programs and to design the framework and components of a multi-media tool that meets the needs of tribes and reflects EPA administrative and programmatic responsibilities. A web-based manual will also be produced to serve as a reference guide and platform for EPA and other federal and tribal organizations to address subsistence food issues. The manual will include adaptable tools to help identify contaminant-related abnormalities in subsistence food, prepare samples for laboratory testing, and develop appropriate models for risk communication. Cooperative education and training opportunities will be identified, including potential interfaces with science-based programs in federal and state agencies. For more information, contact Bille Hougart, OPPT, at 202-260-3345 or hougart.bille@epa.gov.



Update on OPPT Tribal Strategy

By Mary Lauterbach, EPA, OPPT

In Denver, CO this past February, the FOSTTA Tribal Affairs workgroup assembled in a working session to address issues regarding OPPT programs as they relate to developing the OPPTS Tribal Strategy. The workgroup was tasked to identify and prioritize at least four general areas where OPPT should focus its efforts over the next five years. These areas could become more specific and, therefore, be developed into written long-term and short-term goals and objectives.

Following this step, the development process of the OPPTS Tribal Strategy will continue with an efficiency contractor assessing how effective OPPTS programs are in addressing environmental issues in Indian Country and to obtain tribal perspectives on where OPPTS should focus its efforts. There will be at least five outreach meetings throughout the country to help determine this focus. Meeting locations will be announced at a later date. For more information, please contact Caren Rothstein-Robinson at 202-260-0065, Mary Lauterbach at 202-260-9563, or Karen Rudek at 703-305-6005.

Members in Attendance:

Jeff Besougloff, US EPA, American Indian Environmental Division
Chris Casey, Middletown Rancheria
Kris Colt, US EPA, Region 10
Dave Combs, US EPA, Region 8
Fred E. Corey, Aroostook Band of Micmacs
Calvert L. Curley, Navajo Nation
Cynda Deschambaut, US EPA, Region 9
Nancy Rae Gibson, Tribal Environmental Programs
Joanna Glowacki, US EPA, Region 5
Sarah Eagle Horse, US EPA, Region 8
George Hagevik, NCSL
Darlene Harrod, US EPA, OPPT
Bernadette Hudnell, Mississippi Band of Choctaw Indians

Tribal Goals and Objectives of the OPPT Tribal Strategy

- Provide a definition for pollution prevention within the Tribal Strategy for tribes, not just for industry, in order to adopt a much broader definition
- Present more of a field presence in Indian country, such as community outreach, or implement an exchange program that would allow tribal environmental staff to work at EPA, while EPA staff work in tribal environmental programs
- Focus on brownfields model for tribes and on developing alternate fuel sources
- EPA and tribal risk assessment
- More geographical risk assessment through partnership with the Agency of Toxic Substances and ? ATSDR
- More monitoring of toxics by geographical analyses and emergency procedure planning
- Develop more tools for tribes in *Community Right-to-Know* programs
- More *Community Right-to-Know* or *Toxics in Your Environment* reports on ambient exposures
- Tribal exposure
- Health effects
- Cross-media/educational materials
- Communicating risks to tribes

Mary Lauterbach, US EPA, OPPT
Usha K. Little, Native American Environmental Protection Coalition
Georjean Moomaw, Colville Confederated Tribe
Steven Parker, Salt River Pima-Maricopa Indian Community
Phil Robinson, US EPA, OPPT
Reuben Rodriguez
Sharri Venno, Houlton Band of Maliseet Indians
Joan Whitney, Te-Moak Tribe of Western Shoshone

News & Events

Tribes Participate in National Endangered Species Workshop

Representatives of the Shoshone-Paiute and Winnebago Tribes participated in a national workshop on May 2-3, 2001 in Albuquerque, New Mexico to finalize OPP's Endangered Species Protection Program (ESPP). The purpose of the meeting, hosted by OPP's Environmental Field Branch, was to work with state agencies responsible for pesticide regulation, tribes with pesticide cooperative agreements, EPA regional offices, and other federal agencies to examine the details of a Federal Register notice seeking public comment on the final ESPP. The framework for this notice resulted from previous national workshops held in 1997 and 1999.

Topics of discussion at the workshop included the scope of the program, County Bulletins, program priorities, funding, monitoring programs and enforcement issues. Tribal representatives also expressed interest in how best to use limited grant funding to protect threatened and endangered species and the applicability of County Bulletins on Tribal lands. For more information on OPP's Endangered Species Protection Program, contact Mary Powell at 703-305-7384 or powell.mary@epa.gov.

IPM Pilot Project Underway in Indian Country

In a cooperative effort among the Navajo Tribe, EPA's Office of Pesticide Programs, EPA Region 9, and the Bureau of Indian Affairs, a new Tribal Integrated Pest Management (IPM) pilot project has been established to build tribal environmental and custodial capacity on the Navajo Reservation to treat pest problems in schools. The project will allow EPA and the Navajo Tribe to initiate a proven pesticide reduction program on the reservation, demonstrate technological and program planning innovations, develop and disseminate outreach materials, and conduct audits of pesticide use, costs, and exposure, outlining tangible progress for the mitigation of risk to the tribal school community.

The project is designed to be transferable to other tribal school communities. For more information on this tribal pilot project, call OPP's Sherry Glick at 703-308-7035. See related story on page 15.

Tribal Groundwater Protection and Pesticides Management

The Tribal Groundwater Protection and Pesticides Management Team will continue to provide training workshops for tribal employees and tribal organization representatives during the Fall and throughout the coming year. These workshops were originally aimed at assisting tribes in assessing the impact of a proposed Federal Rule and how to comply with that rule. However, at this time the Federal Rule is not moving forward. Nevertheless, team members Ron Cooper, Lil Wilmore, and Irv Provost encouraged tribes to continue learning and stay abreast of the development on this important topic for the safety of their drinking water.

A workshop was held on June 12-15, 2001 and was co-sponsored by the Big Valley Rancheria at Finley, California. At the request of tribes in EPA Region 2, a workshop is being planned in Syracuse, New York in October 2001. A second, advanced workshop is being planned for December in Tampa, Florida. In order to participate in the advanced workshop, attendees must have previously taken an orientation or basic workshop. Another regional workshop is tentatively scheduled for Nevada and will be co-sponsored by Yerington Paiute. The Team also was asked to schedule other workshops in California, New Mexico, and Spokane, Washington.

Finally, the Team meeting agenda now includes a training segment on risk assessment and alternatives assessment, and future agendas may include a segment on understanding FIFRA. If you have feedback or comments, or wish to participate, contact Lillian Wilmore at Native Ecology Initiative, PO Box 470829, Brookline Village, MA. 02447, 617-232-5742, 617-277-1656 (fax), NAEcology@aol.com.

U.S. Signs Treaty on POPs

On May 23, 2001 the United States, represented by EPA Administrator Christine Todd Whitman, signed the Convention on Persistent Organic Pollutants (POPs) at a diplomatic, international conference in Stockholm, Sweden. More than 100 countries negotiated the treaty.

The U.S. played a leading role in pushing for international action on these substances and has already banned and severely restricted the production, use, sale and/or release of these chemicals.

What are POPs?

POPs are toxic, persist in the environment for long periods of time, and biomagnify as they move up through the food chain. POPs have been linked to adverse impacts on human health and animals, such as cancer, central and peripheral nervous system damage, and reproductive and immune system disorders. Because they circulate globally via the atmosphere, oceans, and other pathways, POPs released in one part of the world can travel to regions far from their source of origin. Therefore, they are chemicals of both local and global concern.

What is the POPs Convention?

The Convention on POPs sets forth ambitious, yet realistic obligations, to eliminate or significantly restrict production, use, and releases of twelve POPs, known as the “dirty dozen.” These include the pesticides, industrial chemicals and unintentional byproducts of industrial combustion processes.

How do I get additional information?

OPP is developing a document on POPs, which will be posted on OPP’s international home page in the near future. Additional information can be found at EPA Websites www.epa.gov/pesticides and www.epa.gov/pcb/, United Nations Environment Program Website www.irptc.unep.ch/pops/, and U.S. Department of State Website www.state.gov/www/global/oes/.

Third TPPC Meeting

On March 8-9, 2001, tribal representatives from across the United States gathered in Arlington, Virginia for the third national meeting of the Tribal Pesticide Program Council (TPPC). The meeting included discussions on tribal subsistence issues, Section 18 authority, antimicrobial pesticides, and pesticide disposal, among other topics.

TPPC was organized to provide tribes with a forum for discussion on pesticide issues in Indian country. Membership has grown and now includes 42 tribes, 30 of which were represented at the Arlington meeting. The next meeting will be in September 2001 in Arizona. For more information, contact Lillian Wilmore, TPPC Coordinator, at 617-232-5742 or NAEcology@aol.com.

The “Dirty Dozen”

Pesticides

aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, and toxaphene

Industrial Chemicals and Byproducts

polychlorinated biphenyls, polychlorinated dibenzo dioxins and furans, and hexachlorobenzene

Alaskan Native Corporation Receives Largest EPA Contract Ever

In November 2000, EPA, along with the U.S. Small Business Administration, awarded a five-year Information Management Center Services Contract (IMCSC) to the Arctic Slope Regional Corporation's ASRC Aerospace, a small, disadvantaged business enterprise founded by Inupiat Eskimos. Under the \$65 million contract with EPA, ASRC Aerospace provides information management, records management, and library support services at EPA offices. ASRC Aerospace places over 280 employees in 17 cities at 43 library and records management sites. This is the largest contract ever awarded by EPA to an Indian tribe or an Alaskan Native Corporation. The contract was awarded under the authority of the Business Opportunity Development Reform Act of 1988, which permits non-competitive awards to small, disadvantaged tribal firms to provide business development opportunities.

Specifically, ASRC Aerospace assists EPA by managing collections of scientific and technical information and data, responding to requests for information, and developing virtual services to reach the public and Agency staff at their desktops. ASRC also supports database training, document conversion, imaging, data collection, indexing, inventory control, metadata creation, records scheduling, archiving, and preservation. In addition, ASRC Aerospace maintains Internet and Intranet sites, including EPA's main homepage, www.epa.gov, and supports the United Nations Environment Programme through INFOTERA/USA to support international environmental information services.

ASRC Aerospace is a wholly-owned subsidiary of ASRC. Owned by over 7,500 Inupiat Eskimos, ASRC actively manages lands, resources, diversified operating subsidiaries, and investments throughout the world in order to enhance Inupiat culture and economic freedoms. ASRC is currently one of the largest of 13 Alaska Native Claims with numerous other subsidiaries across the United States. For additional information, contact Paul Dawson, 202-564-4473, dawson.paul@epa.gov, or Annette Duley, 202-564-4739, duley.annette@epa.gov.

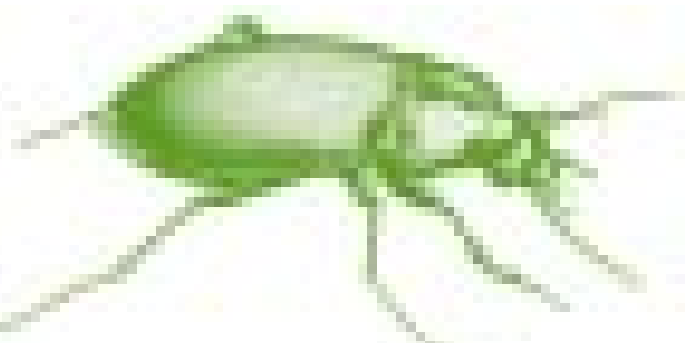
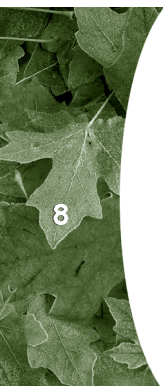
Preservation of Natural History Collections

From April 6, 2001 to April 9, 2001 the National Conservation Training Center, in Shepherdstown, West Virginia, held a retreat to address the preservation of Native American and natural history collections contaminated with pesticide residue and issues surrounding repatriation of contaminated collections. The retreat was sponsored by the Society for the Preservation of Natural History Collections, National Park Service, and the Museum of the American Indian.

During the retreat, 39 Native Americans, museum and preservation professionals, scientists, public health officials and related representatives participated in several discussions topics, including sampling and testing; tribal perspectives and training; and exposure and risk assessment.

Dr. Ana Maria Osorio of EPA's OPP contributed to the topic of exposure and risk assessment.

As noted in the retreat's Executive Summary, "...There was a remarkable level of consensus among the participants on methods to address the problems associated with contaminated collections, particularly collections covered by the National Historic Preservation Act and the American Graves Protection and Repatriation Act." This respectful exchange of subject matter points and counterpoints produced plans to have proceedings from the Symposium published for distribution to Native American groups by December 2001. In addition, a Fall 2001 WebSite is scheduled to facilitate further efforts of the retreat's working groups and implement these action plans. For further information, contact Dr. Judy Bischoff, Conservation Scientist, Department of Conservation, National Park Service at 304-535-6146 or judith_bischoff@nps.gov.



Research Needs within Indian Country and Alaska Native Villages

The National Environmental Justice Advisory Council (NEJAC) held a meeting on May 23-26, 2000 to discuss research needs in Indian Country. EPA also published the Environmental Justice and Community-Based Health Model Discussion and Recommendations Report based on findings and discussions presented at this meeting. The NEJAC meeting was held in order to provide advice and recommendations for strategies and areas of research that should be pursued to achieve more effective and integrated human health assessments and risk prevention efforts. The meeting also addressed socioeconomic status and cultural factors that may contribute to human health and environmental issues.

As part of the advice and recommendations presented in the NEJAC report, the Indigenous Peoples Subcommittee (IPS) of NEJAC developed advice and a set of recommendations for EPA concerning the environmental health and research needs within Indian country and Alaska Native villages. The subcommittee addressed questions, such as:

- What are primary environmen-



tal and human health concerns within Indian country and Alaska Native villages?

- What are the existing research needs within these communities?
- What is needed for an effective environmental health programs and research agenda?
- What role should EPA have in developing and supporting an environmental health program and research agenda?
- What agencies and organizations should be involved in creating and implementing an effective environmental health research agenda?

The subcommittee also reviewed the needed improvements of infrastructures required to support research within Native communities and implement changes based on findings. As a result, IPS recommends that EPA support legislative initiatives, such as the Indian Health Care Improvement Act, assert a leadership role among federal agencies in devel-

oping new financing mechanisms and leveraging all available resources to implement research projects, and support innovative and sustainable technologies within Indian country and Alaska Native villages.

In order to support tribes with environmental health research, including establishing baseline data, IPS recommends that EPA:

- Consult with federally-recognized tribes and involve members of American Indian and Alaska Native communities in designing, planning, and implementing specific environmental health research that reflects traditional and cultural practices, along with needs and concerns,
- Ensure that environmental health research data is reported back to tribal governments and native communities clearly and promptly,
- Preserve the confidentiality of individuals contributing environmental health data,
- Identify the benefit of research to tribal governments before, during, and after the completion of research projects,

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Research

Research Needs within Indian Country and Alaska Native Villages

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- Ensure that researchers obtain all approvals from the appropriate tribal government or review board before conducting research,
- Review all available baseline environmental health data and take prompt steps to address data insufficiencies,
- Request that the Indian Health Service make its annual data on health status readily available to each tribe, native community, and other federal agencies, and
- Along with federally-recognized tribes and tribal organizations, conduct research, studies, and monitoring programs to determine the effects of human exposure to environmental hazards, such as persistent organic pollutants; persistent, bioaccumulative, and toxic pollutants; nuclear resource development, and contamination of water sources and the food chain.

Finally, IPS recommends that EPA collaborate with other federal agencies to ensure that federal agency staff members and managers are trained in federal Indian law, the history of federal Indian policies and legislation, and tribal culture and government. For more information, contact Danny Gogal, EPA, Office of Environmental Justice, at 202-564-2576 or visit <http://es.epa.gov/oeca/main/ej/healthmodel.htm>.

Groundwater Pesticides Management Plan Development by the White Mountain Apache Tribe

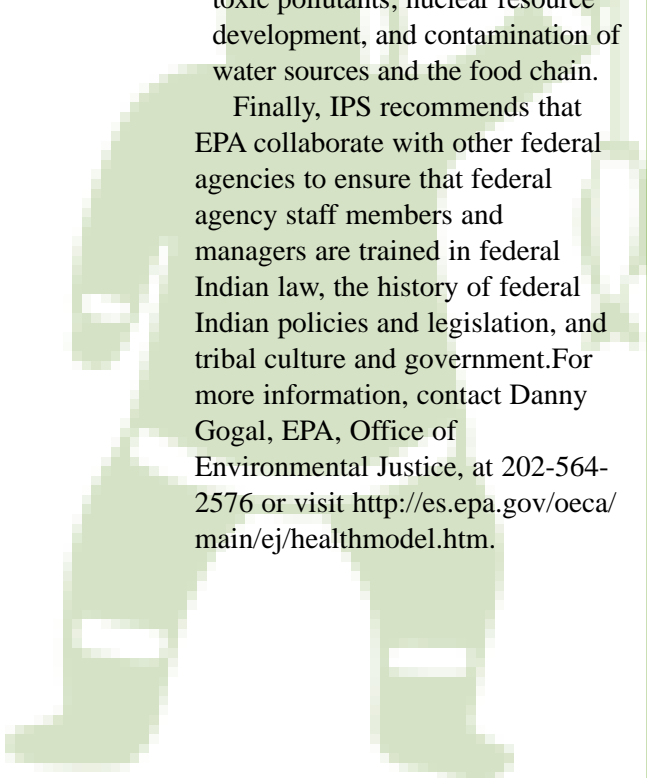
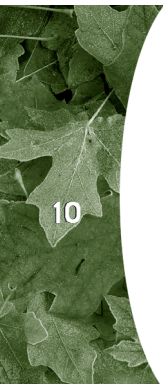
By Laurel J. Lacher, Senior Hydrologist

The White Mountain Apache Tribe, located in east-central Arizona on the Fort Apache Indian Reservation, is developing an integrated groundwater-pesticides management plan to promote careful and sustainable use of pesticides and herbicides to protect drinking water sources on the Reservation.

In order to determine the extent of pesticide use on the Reservation, the Tribal Hydrology and Water Resources program conducted a study of government agencies and private businesses on the Reservation. Most facilities suggested that pesticides are used mostly as a preventive measure in offices, schools, and hospitals, and routine spraying for insects and rodents comprises most of the pesticide use in Tribal communities. The Arizona Department of Transportation also sprays highway margins for toxic weed control and improved visibility.

The results of this study will enable the White Mountain Apache Tribe to develop standard protocol for the handling, use, and storage of pesticides and herbicides on the Reservation. The Tribe also is currently reviewing similar codes from other tribes that have extensive experience with pesticide use. After completion and approval, the groundwater-pesticides management plan will be incorporated into the White Mountain Apache Tribe's Eco-System Management Code.

US EPA, the Spray Drift Task Force, and the American Association of Pesticide Safety Educators are pleased to announce a second conference on Pesticide Spray Drift. This conference is targeted at pesticide regulators, pesticide educators, industry representatives, pest control advisors, and pesticide applicators. This two-day conference will be held in Sacramento, California on September 5-6, 2001. Meals, notebook and CD-rom will be provided through the registration fees. There will be limited seating, so register early. For more information on registration fees, hotel accommodations, and ground transportation, please visit <http://pep.wsu.edu/ncodm/conf01.html> or contact Carol Ramsay, Pesticide Education Specialist, Washington State University at P.O. Box 646382, Pullman, Washington 99164-6382, 509-335-9222, 509-335-1009 (fax), or ramsay@wsu.edu.



Learn about Contaminants in Northern Canada

Source: *Highlights of the Canadian Arctic Contaminants Assessment Report: a Community Reference Manual, 1997.*

Within the last decade, studies have shown that chemical contaminants from industrial and agricultural activities outside of Canada have migrated to the North by natural processes.

What are these contaminants? Where do they come from? How do they migrate to the North? How is wildlife affected? Does this have any bearing on human health? Is traditional food safe to eat? The answers to these questions and many others are found in *Highlights of the Canadian Arctic Contaminants Assessment Report: a Community*

Reference Manual, 1997. Throughout this document, Northern communities, as well as others seeking knowledge of contaminants and their effects on subsistence lifestyles, can review trends in contaminant exposure, study the results of research and data analyses, and learn prevention techniques that will help to preserve the balance between traditional communities and the environment.

This reference manual was produced by the Northern Contaminants Program and prepared in consultation with Northern Canadian Aboriginal organizations and communities. The Northern Contaminants Program (NCP) was established because of concerns about contaminants in traditional/country food north of 60 degrees, and the effects of contaminants in the Arctic environment on human and ecosystem health.

Presented below is a snapshot of valuable information found in this community reference manual. A summary is also presented in the NCP brochure, *The Northern Contaminants Program, 2000.*

What are these contaminants? Contaminants of concern for the NCP are organochlorines, metals, and radionuclides. Organochlorines, such as polychlorinated

“The ultimate goal of the Northern Contaminants Program (NCP) is the reduction or elimination of contaminants in traditional/country food. The NCP also puts emphasis on providing Northerners with the information they need to make their own decisions, participate in the issues, and contribute to solutions.”

biphenyls (PCBs) and toxaphene, are manufactured chemicals found in pesticides and combustion processes. Metals, such as mercury and lead, occur naturally in the environment, but are also released to the environment through industrial activities, such as mining, smelting, and coal burning power generation. These heavy metals are harmful to human health and the environment when present in excessive concentrations. Radionuclides are atoms that decay and emit radiation and may occur naturally in the environment or result from atmospheric testing of nuclear weapons and nuclear waste disposal in oceans.

Where do they come from? Because most contaminants of

Continued



Research

concern are not manufactured or used in Canada, it is believed that industries in other countries produce many contaminants that migrate to the North.

"...analyses of blood, milk, and hair samples of Northerners who consume marine animals have shown, in some cases, elevated levels of contaminants."

How do they migrate to the North?

Contaminants are "carried" to the North by air within winds and clouds, oceans, ice, and rivers. Parts of Asia, Europe, and North America are the main source regions for many of these contaminants. Transport by air is the most important pathway.

How is wildlife affected? Some contaminants do not break down in the environment or when eaten by animals. Instead, they stay in the body and are usually stored in fatty tissues or certain organs. As an animal continues to consume contaminants over its lifetime, the levels in the body will increase. Therefore, older animals tend to have higher contaminant levels. This is bioaccumulation. Animals that eat other animals can build up higher levels of contaminants because the concentration increases with each step along the food chain, from prey to predator. This is called biomagnification. The most vulnerable animals are those higher in the food chain. For example, marine

animals, such as polar bears, whales, and seals, usually have higher contaminant levels than terrestrial animals since they are higher in their food chains.

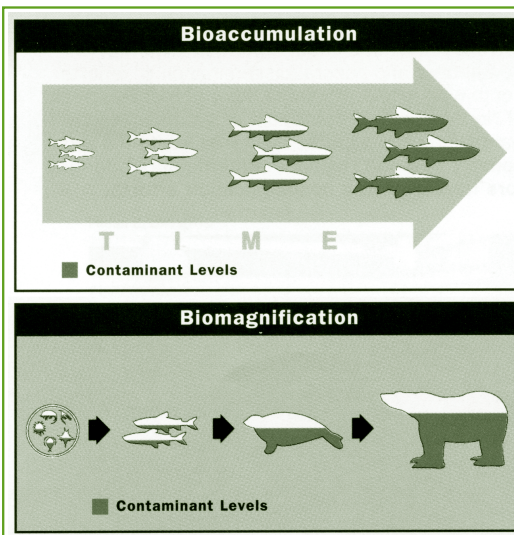
Does this have any bearing on human health? Yes. Because traditional/country food is the primary source of many important nutrients and a part of the daily culture for Northern people, many are exposed to levels of contaminants that are of concern.

Is traditional food safe to eat? Research on the possible health effects of exposure to contaminants is being conducted in

source of many important nutrients and often more nutritious and less expensive than store-bought food. In addition, traditional/country food is strongly linked to the social, cultural, and spiritual well-being of Aboriginal peoples. Infants and unborn children are thought to be most vulnerable to effects of contaminant exposure.

Because many of the contaminants entering Northern Canada come from other countries, reduction of contaminant levels in the North requires international actions. The NCP is participating in international action and initiatives on contaminants through the Arctic Monitoring and Assessment Programme, the United Nations Economic Commission for Europe, and United Nations Environment Program Global Agreement on persistent organic pollutants.

For more information on contaminants in the North or the NCP, visit www.inac.gc.ca/ncp or contact the Department of Indian



Northern Canada and around the world. Northerners need a clear understanding of the risk of contaminants in traditional/country foods in relation to the benefits of a traditional diet and the consequences of abandoning this diet. Traditional/country food, in many cases, is the primary

Affairs and Northern Development, Northern Contaminants Program at 10 Wellington Street, Hull, Quebec, Canada K1A 0H3, 819-953-8109, 819-953-9066 (fax), ncp@inac.gc.ca.

Cultural Risk Assessment and Quality of Life Issues

Source: "Using Eco-Cultural Dependency Webs in Risk Assessment and Characterization of Risks to Tribal Health and Cultures," *Environmental, Science, & Pollution Resources, Special Issue 2, 2000*

While indigenous communities face environmental, social, cultural, and economic problems related to pollution, many organizations rely on risk assessment and exposure models to indicate problem areas, origins of pollution, environmental contamination, and resulting health effects. Because indigenous lifestyles rely on Native lands and resources, evaluation of risks from contamination, and therefore risk assessment tools, must integrate human physiology and mental health, ecological health, socio-economic health, and cultural and spiritual health within a single framework.

Written by Stuart G. Harris, Confederated Tribes of the Umatilla Indian Reservation, and Barbara L. Harper, International Institute for Indigenous Resource Management, "Using Eco-Cultural Dependency Webs in Risk Assessment and Characterization of Risks to Tribal Health and Cultures" presents a methodology for adding social, cultural, and economic risks to the conventional risk assessment

framework, which normally provides computer-generated results of fate and

transport models and exposure scenarios. Their research of risk assessment appropriate for indigenous communities focuses on understanding the entire eco-cultural system and provides suggestions for improving risk assessment through the use of dependency webs.

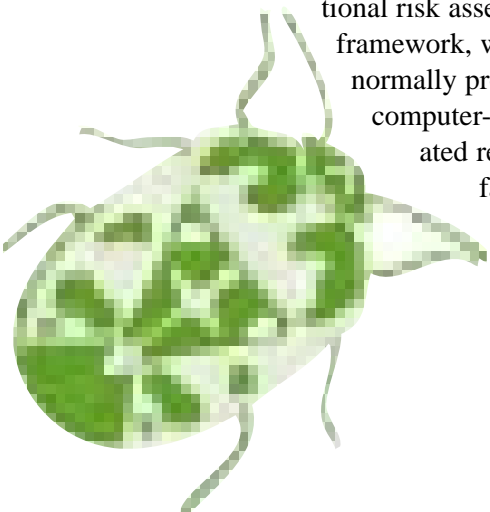
Harris and Harper began examining risk assessment methods to evaluate tribal risks at the Department of Energy, Hanford Site, and discovered that conventional methods were extremely inadequate. As a result, they developed a human exposure scenario that reflected subsistence activities and lifestyles practiced by the Confederated Tribes of the Umatilla Indian Reservation. In addition, they incorporated EPA's Comparative Risk method, which includes a community quality of life component, in order to reflect traditional tribal cultural values and to capture the impacts of contamination to the tribal culture. Finally, this research team utilized the natural-cultural resource dependency web, based on cultural ecosystem stories, developed by the Tulalip Tribe and EPA. The resource dependency web helps to identify the resources, uses, functions, and

services associated with a resource or area that is at risk from contamination, and therefore includes many elements

Eco-cultural System: "People and biota interlocked in a co-adapted system of behaviors and ecologies that is sustainable over time, which is now severely strained, even without the addition of contamination."

important to the affected community.

For more information on eco-cultural dependency webs and risk assessment, contact Stuart G. Harris, Confederated Tribes of the Umatilla Indian Reservation, Special Science and Resource Program, P.O. Box 638, Pendleton, OR 97801, stuartharris@ctuir.com, 541-966-2408, and Barbara L. Harper, International Institute for Indigenous Resource Management, 444 South Emerson Street, Denver, CO 80209, bharper@nwinform.net, 509-967-5174.



A Look at Pollutants within the Arctic

Source: *Arctic Pollution Issues: A State of the Arctic Environment Report, Arctic Monitoring and Assessment Program, June 1997*

The *Arctic Pollution Issues: A State of the Arctic Environment Report* examines the levels of anthropogenic pollutants and their effects within the Arctic environment. The report presents the findings of the Arctic Monitoring and Assessment Program, established in 1991, in their assessment of contaminants and pollutants in the eight Arctic countries, Canada, Denmark/Greenland, Finland, Iceland, Norway, Sweden, Russia, and the United States.

Pollution within the Arctic is the focus of this report in order to evaluate contaminants within

“The most exposed animals to many contaminants are those high in the food webs, such as marine mammals, including polar bears, and birds of prey, but also some fish species.”

Arctic countries and their effects on humans and the environment. Communities with the Arctic are closely linked to local resources, and diets of indigenous and other Arctic people consist of subsistence foods, therefore, placing these communities at high risk to environmental contaminants. The report addresses contaminant sources and pathways, contaminant levels, trends, and effects, geographical areas of concern,

human exposure, and potential threats, as well as gaps in current understanding and research.

As a result of research, there are sources within the Arctic and outside of the Arctic that contribute to pollutants of concern. Outside of the Arctic, exists persistent organic pollutants, including organochlorine pesticides, polychlorinated biphenyls, chlorinated dioxins and furans, and polycyclic aromatic hydrocarbons. Sulfur and nitrogen compounds associated with industry, energy production, and transport are also present, while heavy metal contamination results mainly from industrial processes within Europe and North America.

Inside of the Arctic, similar pollutants arise from different sources. Polychlorinated biphenyls are found in decommissioned (Distant Early Warning) Line sites in Canada, while chlorinated dioxins and furans are released from smelters in Norway. Heavy metals result from mine sites and industrial activities within Arctic areas.

According to the results of the report, contaminants typically travel with winds and in rivers and ocean waters to Arctic areas. Also, human and animal exposure and health risks are mostly affected by the presence of polychlorinated biphenyls and pesticides.



Researchers and scientists within the Arctic Monitoring and Assessment Program also presented recommendations within the report, including human health advice, suggestions for keeping indigenous people active and interested in research, international strategies to protect the Arctic from environmental contamination, and further research on contaminant levels, trends, and effects of pollution.

Further information on the Arctic Monitoring and Assessment Program and pollutants research can be found in a related document, *AMAP Assessment Report: Arctic Pollution Issues*. You may also contact John Calder, National Oceanic and Atmospheric Administration, at 301-713-4023 or john.calder@noaa.gov or visit www.amap.no/assess/assess.htm.

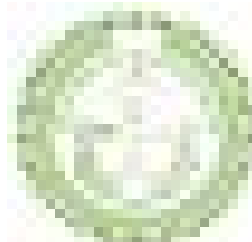
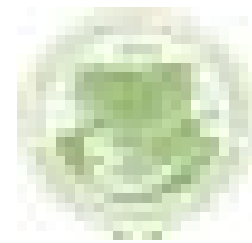
IPM in Schools Pilot Project Takes Off on Navajo Reservation

By Dr. Marc L. Lame, Entomologist

On May 17, 2001 a Tribal Integrated Pest Management in Schools pilot project, initiated by EPA's Office of Pesticide Programs and the Bureau of Indian Affairs (BIA), began in BIA school facilities on the Navajo Indian Reservation. The program began at the Eastern Navajo Agency (ENA) facility offices with a meeting of several members of the Navajo EPA, BIA facility managers, a contracted pest control operator (PCO), and Dr. Marc L. Lame, the coordinator and IPM in Schools consultant.

Three BIA schools were chosen for the project initiation, including Crown Point Community School, Lake Valley School, and Mariano Lake School. At the initial meeting, participants discussed the conditions and elements necessary to implement a successful program, such as a committed school administration; obtaining an on-site program manager; conducting audits to document current pest problems, pesticide use, and cost of pest management; and training facility personnel.

The BIA schools and dorms are in good shape to develop as IPM models. The facilities are in



good condition regarding maintenance and sanitation, better than 75% and 85% of schools assessed, respectively. The "better than expected" conditions result from above average facility management and more frequent Indian Health Service(IHS) inspections for sanitation. IHS inspectors are very concerned about disease transmission. Also, the community is aware of the Hanta virus and the sanitation and rodent exclusion necessary for prevention.

Upon discussion and a cursory inspection, pest pressures were found to be relatively low. Flying insects, such as bees, wasps, and house flies, and spiders were not a problem in terms of presence or tolerance, and roaches were non-existent. Harvester Ants and what residents call "Sugar Ants" were present and considered pests. Of real interest to entomologist types are the more than occasional head lice and bedbug infestations. Vertebrate pests, or rodents, did not seem to be a big problem.

All "bugs" are being treated with at least a bi-monthly, scheduled application of a pyrethroid, and the mouse baits are appro-

On-site implementers for the pilot program include Bob Villarreal, ENA Facilities Manager, Chad Bourgoin, ENA Environmental Specialist, and Robert Begay, the PCO. A successful program may be expanded throughout the Reservation with additional help from Debbie McBride (BIA); Herb Holgate, Jeff Biakeddy, and Calvert Curly (Navajo Nation EPA Pesticide Program); and Laverne Gene (EPA Region 9.)

appropriate. However, there is great potential to demonstrate drastic pesticide reduction under these conditions, particularly with the elimination of scheduled treatments in favor of "as needed and based on monitoring" treatments. OPP will continue to provide updates on this tribal pilot project. For more information on IPM in Schools or this tribal project, contact Marc Lame at 812-855-5249 or mlame@indiana.edu.

AEIO Tribal Baseline Assessment Project

EPA and tribal governments need sound information about the current environmental conditions in Indian country in order to make effective use of federal and tribal resources to support environmental planning and management in Indian country. EPA's American Indian Environmental Office (AIEO) began this Baseline Assessment Project in 1997 to gain more insight on environmental conditions in Indian country hoping to improve EPA's effectiveness at protecting human health and the environment and to provide a useful tool for tribal environmental managers.

Early feedback on the Baseline Project from EPA's Tribal Operations Committee indicated a desire for EPA to summarize the existing federal data before requesting additional data from tribes. Therefore, the first phase of the project was to determine a way to extract tribe-specific information from EPA's national environmental databases since the databases were indexed according to state or county boundaries, not tribal boundaries. This phase resulted in the Tribal Information Management System (TIMS).

TIMS is a web-based information system that allows the user to access federal environmental information for specific tribes. Currently the system is on a developmental server and only accessible via EPA's Intranet with a username and password. Tribal governments will have the opportunity to review their information and provide comments before any information is released to the public. AIEO is preparing to conduct TIMS demonstrations at future tribal meetings. For more information, contact Ed Liu at 202-260-9872 or liu.ed@epa.gov, or Tonya Fish at 202-260-0769 or fish.tonya@epa.gov.

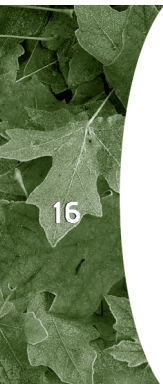
ORD Research on Children's Exposure to Persistent Pollutants

A pilot study of preschool children began this spring in Ohio by EPA's Office of Research and Development to better understand how young children are exposed to persistent pollutants, including pesticides. This is a pilot study, meaning further research on children will be needed to develop conclusions that can be applied to the entire population.

Preschool children are thought to have more frequent contact with pesticides and other pollutants than older children or adults because of their diet, exposure in play areas, and participation in outside activities. There is concern that children may be more sensitive to the toxic effects of some chemicals found in or on lawns, carpets, toys, furniture and many other items. As a result, there is a need to learn more about exposure and risks.

Endorsed by the National Head Start Association, the Ohio Department of Human Services, and several local child service agencies, the three year study will include approximately 260 children between the ages of 18 months and 5 years. Families will be required to supply samples of food and beverages consumed by their children, and scientists will collect samples of indoor and outdoor air, urine and hand wipes, and dust and play area soil.

EPA's National Exposure Research Laboratory in the Research Triangle Park, NC, is also conducting research to fill in the gaps in understanding children's exposure to environmental contaminants, as well as associated effects and assessment of risks to children. For more information, please contact Ann Brown, ORD Media Contact, at 919-541-7818, brown.ann@epa.gov.



Research

New Research at the University of Colorado in Pesticide Removal from Cultural Collections

The research program in the Department of Biology at the University of Colorado at Denver has focused in the past on the use of naturally occurring microorganisms in the removal and detoxification of metals, such as lead and cadmium, and organics from polluted soils. Laboratories supporting the research program have recently studied the usefulness of these same microorganisms in the detoxification and removal of pesticides from contaminated cultural collections.

Microorganisms include bacteria and fungi, generally are not disease-causing, and are responsible for the degradation and recycling of plant and animal materials. Microorganisms also degrade and recycle some of the chemical pollutants being released into the environment. Extensive laboratory studies

have shown that these microorganisms can reduce the toxicity of pesticides, often degrading or removing the pesticide entirely. The microorganisms either cause the pesticide to be chemically inactive, and therefore it's less likely to react with a biological system, or destroy the chemical, turning it into nontoxic by-products.

To date, there has only been an examination of microorganisms in mercury-containing solution studies. Experiments are now underway to determine the ability of isolates to volatilize mercury from contaminated materials, such as textiles. Eventually, tribes will participate in testing the procedure on actual artifacts to assess the effect of aged materials on the mercury removal.

With this research, there is hope to find a natural, environmental- and culture- friendly,

approach to remove pesticides from cultural collections. Future plans include evaluating arsenic and organic pollutant removal from objects using the same or similar microorganisms.

For more information on this subject, please contact Dr. Timberley Roane, Assistant Professor, Department of Biology, CB #171, P.O. Box 173364, University of Colorado, Denver, CO 80217-3364, 303-556-6592, troane@carbon.cudenver.edu. You may also visit <http://carbon.cudenver.edu/public/biology/>.



From July 10 - July 20, 2001 EPA is convening an online public discussion on improving public involvement in EPA decision-making. The Dialogue will be based on the EPA's newly drafted Public Involvement Policy. Join interested citizens, representatives of industry, environmental groups, small businesses, states, local governments, tribes, and other groups to learn more about the draft policy and to share your thoughts and concerns regarding how EPA should implement this policy.

For more information, please contact Patricia Bonner, US EPA, at bonner.patricia@epa.gov or Information Renaissance at 888-638-5323 or epa@network-democracy.org. To participate in the online public discussion, register at <http://www.network-democracy.org/epa-pip>.

Floodwater Farming in Southwestern North America

By Gilbert Two/Two, Tohono O'odham Nation

Subsistence farming, or farming with the use of flash-flood waters, has played an important role in the lives of the native population in the arid Sonoran Desert area of Arizona. Arizona's, Tohono O'odham Tribe derived a considerable part of their livelihood from subsistence farming by allowing the waters to irrigate their crops naturally. The O'odham tribe learned to plant where both rain and runoff are concentrated and held by the use of bound weirs, low embankments, dikes, and dirt ditches. This agriculture enables them to grow ancient crops that produce a useable harvest on fewer inches of rainfall compared to other agricultural areas in the world.

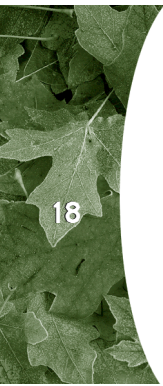
Traditional floodwater farming methods are used less frequently today. As a high risk system, floodwater farming is no longer competitive with conventional irrigation agriculture. O'odham families also believe that the elderly masters of flood farming water control are dying, and a smaller percentage of the young are learning the basic skills. Food production however remains viable in arid lands with modern agricultural methods. But as ground water pumping cost increase, and therefore, continue to affect crop production economics in arid lands, floodwater farming has been utilized more often across the O'odham Nation by merging the traditional techniques with the conventional irrigation methods. For example, in periods when storm events are more probable, in July through August and December through January, floodwater-charged ecosystems are used to produce crops with higher protein contents and more physiological drought and heat tolerance than crops grown under conventionally irrigated fields.

With assistance from USDA, communities continue to carry out activities that increase conservation of natural resources, support economic development, and enhance the environment and standard of living. For more information, please contact Gilbert TwoTwo, District Conservationist, Tohono O'odham Nation, at SWCD P.O. Box 577, Sells, Arizona 85634-0577, 520-383-2851, 520-383-3445 (fax), gilbert.twotwo@az.usda.gov.

STAR Research Capsules

EPA's Science to Achieve Results (STAR) extramural research program addresses all major research priorities of EPA and focuses on important scientific issues facing our nation. "Capsules," listed in the box below, were developed at the request of EPA program and regional offices, and present some of the topics that relate to areas where STAR researchers are working. Within each topic area, all grants or other National Center for Environmental Research (NCER) research pertaining to that specific scientific issue, such as "Mercury," are described in summary form. Descriptive information and links to the NCER web site are provided for more information, including abstracts, progress reports, final reports, and publications when available. In addition, web links to other agencies and/or EPA offices are provided for a more complete picture of research in a specific topic area. For more information, visit, <http://es.epa.gov/ncerqa/publications/topical/>. (Source: EPA's National Center for Environmental Research—STAR research capsules)

- Algal Blooms Research
- Children's Health
- Dioxin Research
- Drinking Water
- Ecological Assessment and Indicators
- Fisheries Research
- Great Lakes Research
- Mercury Research
- Mining Impacts Research
- NOx Research
- PCB Research
- Pesticide Bio- and Phytoremediation
- Pesticide Removal and Agricultural Impacts Research
- Remediation Research
- Pesticides and Human Health Research
- Sediments Research
- Urban Sprawl Research



Tribal Medicine Project Visits Inland Pacific Northwest

By David F. Goldsmith, MSPH, PhD, George Washington University

EPA's Office of Pesticide Programs is supporting a Tribal Medicine Project with George Washington University focusing on pesticide and health issues affecting tribal communities. The program focuses on health care provider outreach in the area of pesticide-related medical conditions and pesticide sampling on tribal lands. The Tribal Medicine Project seeks to bring EPA's preventive medicine focus to pesticide-related training of health care providers in tribal communities. The environmental sampling is an attempt to characterize pesticides used on tribal lands and the possible routes of exposure to better inform the health care providers. No human health effect studies are being conducted.

On April 23, 2001, a Tribal Medicine Project planning meeting was held in Spokane, Washington to discuss possible collaboration for both sampling and a health training workshop. Thanks to EPA Region 10 Circuit Rider Pesticides Enforcement Coordinator, Eric Gjevre, invitations went to the Colville Tribe, Kootenai Tribe, Nez Perce Tribe, Coeur d'Alene Tribe, Spokane Tribe, Kalispel Tribe, Indian Health Service in Portland, and the Bureau of Indian Affairs. Common concerns among the tribes include pesticide applications, including aerial applications, and anecdotal

Attending Tribes and Meeting Contacts

- Coeur d'Alene Tribe, Eric Gjevre, Director of Natural Resources, P.O. Box 408, Plummer, ID 83851-0408, 208-686-5507
- Kootenai Tribe of Idaho, Adrienne Bourgeois, Environmental Director, P.O. Box 1269, Bonners Ferry, ID 83805, 208-267-3519
- Colville Confederated Tribes, Deb Louie, Member Tribal Council, Maurice Socula, Environmental Protection Office, Matt Boyd Jr., Environmental Health Specialist; Gary Desautil, P.O. Box 150, Nespelem, WA 99155, 509-634-2312.
- Nez Perce Tribe, Jennifer Williams, Environmental Specialist, ERWM Program; Julie Simpson, Air Quality Program; P.O. Box 365, Lapwai, ID 83540, 208-843-7375, ext. 2444; Becky Wilson-Simpson, PHN, Community Health Supervisor-Nimiipuu Health, P.O. Drawer 367, Lapwai, ID 83540, 208-843-7303, ext. 2492.

reports of asthma and other respiratory complaints. Other issues of concern include pesticides in irrigation water and impacts on fisheries, especially salmon, and long standing differences about tribal sovereignty regarding regulations.

The Tribal Pesticide Program Council was briefed on the status of this project at its most recent meeting in March 2001 in

Crystal City, Virginia. For more information on the Tribal Medicine Project, contact David F. Goldsmith, MSPH, PhD, Department of Environmental & Occupational Health, George Washington University, 2300 K Street, Suite 201, Washington DC 20037, 202-994-1734, 202-994-0011 (fax), eohtfg@gwumc.edu.



Resources

Winds of Change Magazine

There are many interesting sources of information available today that feature a wide variety of Indian issues and focus specifically on environmental and public health problems that tribal nations have encountered over the last decade. Many different mass media formats, such as television, radio, the Internet, newspapers, and magazines, are used to discuss these important issues and events, and many printed resources are being created by tribal organizations and indigenous peoples, environmental organizations and tribal

and non-tribal governmental entities.

One available resource is the *Winds of Change* magazine, devoted to American Indian Education & Opportunity. It is the only nationally distributed, full color magazine published by and for Americans Indians. Many of the articles in this magazine feature ongoing environmental projects and offer a native perspective on environmental issues and concerns. The magazine is beautifully illustrated through original native artwork, and the graphics make

each issue a keepsake. *Winds of Change* is being published quarterly by AISES Publishing, Inc., which is associated with the American Indian Science and Engineering Society. For further information, visit www.winds.uthscsa.edu or contact the editors of *Winds of Change* at 4730 Walnut, Suite 212, Boulder, Colorado 80301, 303-444-9099.



In the Light of Reverence, Indian Films on PBS

On Tuesday, August 14th, 2001 at 10:00 PM, tune in to PBS for a special screening of the award winning new documentary, *In The Light of Reverence*. This film is part of the "Point of View" showcase,

"...This beautifully-crafted film is a wake-up call for everyone who cares about the environment and human rights..."

—Robert Redford

an acclaimed series of independent films airing on PBS.

In The Light of Reverence documents the Native American struggles to protect landscapes of spiritual significance. The film tells the stories of three communities and the places they hold sacred, such as the Lakota at Devils Tower in Wyoming, the Wintu at Mt. Shasta in

California, and the Hopi in the Four Corners area of the Southwest. *In the Light of Reverence* also shows the obstacles to religious freedom for land-based practitioners and the impact on sacred landscapes that range from mining to ski resorts. The film is narrated by Peter Coyote and Tantoo Cardinal.

In the Light of Reverence has been honored with the Best Feature Documentary award at the American Indian Film Festival in San Francisco, and is expected to receive The Eagle Award at the Taos Talking Pictures Festival. For more information, please contact Christopher (Toby) McLeod, Sacred Land Film Project, Earth Image Films, P.O. Box C-151, La Honda, CA 94020, 650-747-0685, 650-747-0750 (fax), eif@igc.org or visit www.sacred-land.org.

In the Light of Reverence Screening Schedule

- First Peoples' Festival 2001, Montreal, Canada, June 14, 2001, 9pm
- Native American Journalists Association Annual Meeting, Adam's Mark Hotel, Buffalo, NY, June 15 –17, 2001, Time TBA
- Berkeley Community Theater, Schwimly Little Theater, Berkeley, CA, June 30, 2001, 3:30pm
- Smithsonian's National Museum of the American Indian, New York, NY, August 2, 6pm, and August 4, 2pm

Resources

Pollution Prevention Incentives for States

The Pollution Prevention Incentives for States (PPIS) Grant Program provides matching funds to states and tribes to support pollution prevention activities and the development of state and tribal environmental programs.

Quick Facts

What type of program is it? Matching grant program.

What's the purpose? Promote pollution prevention through technical assistance and training, outreach and education, regulatory integration, demonstration (or pilot) projects, and awards recognition.

Who's eligible? Federally-recognized Indian tribes, state government agencies, state universities, the District of Columbia, and U.S. territories.

How much funding is available? Funding may vary and is subject to availability each fiscal year; approximately \$5 million in grant and cooperative agreement funds is available for FY 2001-2002.

What do I need to submit? Interested applicants must submit a proposal and other application materials; detailed information can be obtained from listed contacts.

Background

The concept of pollution prevention has been a primary focus of environmentalists and EPA for over twenty years. Because they have specific information on

pertinent environmental issues needing to be addressed within their own communities, EPA encourages states and tribal communities and their leaders to play a primary role in working with industry, local governments, and the public in obtaining pollution prevention goals. As a result, in 1989 EPA established the Pollution Prevention Incentives for States Grant Program with goals of:

- Building pollution prevention capabilities within state, local, and tribal governments
- Testing innovative pollution prevention approaches and methodologies
- Fostering coordination and exchange of information between federal agencies, tribes, state and local governments, and the private sector
- Targeting high-risk environmental problems in sectors that are traditionally addressed by EPA, such as agriculture, energy, and transportation
- Leveraging EPA resources through seed money and well-targeted grants.

Application Requirements and Information

Eligibility

Federally-recognized Indian tribes, state agencies, state universities, the District of Columbia, and U.S. territories are eligible to apply. Local governments, private universi-

ties, private non-profit organizations, and individuals may not receive grant funds. By teaming or partnering with other eligible state or tribal programs, local governments and private groups can receive funding.

Application

Applications and proposals should include proposed objectives or plans addressing state or tribal pollution prevention capabilities; cross-media transfer of pollutants; state or tribal community pollution prevention goals and/or needs; integration with other state, tribal, or federal programs; measures of success; and long-term funding mechanisms.

Application Submission

Because application procedures and schedules are determined by each EPA Region, Regional PPIS Coordinators listed below should be contacted for questions or requests regarding applications, deadlines, and other program information. Also, consult the regional PPIS coordinator about forms and certificates that need to be included in the application packet.

continued on page 22

Resources

continued from page 21

OPPT Regional Grant Program Contacts

US EPA Region 1
JFK Federal Building
One Congress Street, Suite 1100
Boston, Massachusetts 02114
Kira Jacobs, 617-918-1817
Abby Swaine, 617-918-1841

US EPA Region 2
290 Broadway, 25th Floor
New York, New York 10007
Marcia Seidner, 212-637-3584
Deborah Feeman, 212-637-3730

US EPA Region 3
1650 Arch Street
Philadelphia, Pennsylvania
19103
Jeff Burke, 215-814-2761
Lorna Rosenberg, 215-814-5389

US EPA Region 4
Atlanta Federal Center
61 Forsyth Street, S.W.
Atlanta, Georgia 30303
Dan Ahern, 404-562-9028

US EPA Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604
Phil Kaplan, 312-353-4669

US EPA Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202
Eli Martinez, 214-665-2119
Joy Campell, 214-665-7446

US EPA Region 7
901 North 5th Street
Kansas City, Kansas 66101
Chilton McLaughlin, 913-551-7666

US EPA Region 8
999 18th Street, Suite 500
Denver, Colorado 80202
Linda Walters, 303-312-6385

US EPA Region 9
75 Hawthorne Street
San Francisco, California 94105
Eileen Sheehan, 415-744-2190
John Katz, 415-744-2150
Leif Magnuson, 415-744-2153

Region 10
1200 Sixth Avenue
Seattle, Washington 98101
Carolyn Gangmark, 206-553-4072

 Indian Lands

Resources

Environmental Justice Through Pollution Prevention

The Environmental Justice Pollution Prevention (EJP2) Grant Program provides financial assistance to state and local governments, federally-recognized Indian tribes, non-profit environmental organizations, and academic institutions for projects that address environmental justice and use pollution prevention as the solution to environmental issues, rather than traditional pollution control techniques.

Quick Facts

What type of program is it?

Grant program.

What's the purpose? Fund projects addressing environmental justice using pollution prevention.

Who's eligible? Federally-recognized Indian tribes, state and local governments, non-profit environmental organizations, and academic institutions.

How much funding is available? Up to \$750,000 in grant funds will be available to eligible organizations

What do I need to submit? Proposal, budget information, certification forms, resumes, and standard forms for federal grant assistance.

Background

The Environmental Justice Pollution Prevention (EJP2) grant program has been in existence since 1995. This grant program was designed to fund

projects which have a direct impact on affected communities and encourage innovative use of pollution prevention to address environmental justice issues. Projects funded by this grant program have included public education, training, seminars, research and investigations, surveys, public-private partnerships, and approaches to develop, evaluate, and demonstrate non-regulatory strategies and technologies. Through the program, EPA strongly encourages cooperative efforts among communities, businesses, industry, and government agencies to address common pollution prevention goals.

Application Requirements and Information

Eligibility

The EJP2 grant program accepts applications from any affected, non-profit community organization, or state and federally-recognized tribal organizations. While state and local governments and academic institutions are eligible to receive grants, preference will be given to non-profit, community-based/grass-roots organizations and state and federally-recognized tribes. Also, non-profit community organizations must be incorporated in order to receive awards. Private businesses, federal agencies, and

individuals cannot receive grants under this program.

Application

Application packets must include a one page summary sheet, narrative of proposal, key contacts, a detailed, itemized budget, certification of non-construction, SF 424B, letters of commitment, memorandum of understanding, or other documents that highlight significant involvement of other partners in your grant application, resumes or biographical information regarding the lead and other key personnel, Standard Form 424 for applications of federal grants, federal Standard Form 424A providing budget and match information, and certification regarding debarment, suspension, and other responsive matters. Applications may also include any additional information providing the history of the organization(s) and success stories.

Application Submission

Requests for proposals and applications are typically published in the Federal Register. Details of proposal requirements and applica-

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Resources

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tion packets can be found in the EJP2 grant program guidance. The program guidance may be obtained by calling (703) 841-0483 or sending an email message to ejp2@erg.com. The program guidance and a mock application form are also provided on the EJP2 home page at <http://www.epa.gov/opptintr/ejp2>. Applicants may request up to \$75,000 for projects, and those that are governmental entities, such as state and local governments, are subject to a 25% matching or cost-sharing

requirement. The application period typically closes during the Spring or Summer. Finally, applications should be mailed to Environmental Justice Pollution Prevention Programs, c/o Eastern Research Group (ERG), 2200 Wilson Boulevard, Suite 400, Arlington, VA 22201.

Contact Information

To obtain copies of the EJP2 grant program guidance and application package or to obtain more information regarding the EJP2 grant program, call (703)

841-0483 or email ejp2@erg.com. Grant guidance package materials, as well as a list of regional contact names and addresses, are also provided at the EJP2 Home Page www.epa.gov/opptintr/ejp2.

Regional Grant Program Contacts

US EPA Region 1
One Congress Street, Suite 100
Boston, MA 02114-2023
Ronnie Harrington, 617-918-1703
Pat O'Leary, 617-565-3834

US EPA Region 2
290 Broadway, 25th Floor
New York, NY 10007
Marcia Seidner, 212-637-3584
Deborah Freeman, 212-637-3730

US EPA Region 3
1650 Arch Street
Philadelphia, PA 19103
Jeff Burke, 215-814-2761

US EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960
Connie Raines, 404-562-9671

US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590
Phil Kaplan, 312-353-4669

US EPA Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733
Eli Martinez, 214-665-2119

US EPA Region 7
901 North Fifth Street
Kansas City, KS 66101
Althea Moses, 913-551-7649

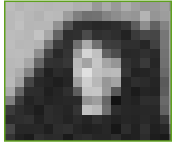
US EPA Region 8
999 18th Street, Suite 500
Denver, CO 80202-2466
Linda Walters, 303-312-6385
Jean Belille, 303-312-6556

US EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105
Eileen Sheehan, 415-744-2190
John Katz, 415-744-2150

US EPA Region 10
1200 Sixth Avenue
Seattle, WA 98101
Lucita Valiere, 206-553-2964

Indian Lands

Interview with Georjean M. Moomaw, new FOSTTA Tribal Affairs Co-Chairperson



Georjean M. Moomaw is the new FOSTTA Tribal Affairs project co-chairperson, as well as the Project Manager for the Toxic Lead Program within the Colville Confederated Tribe in Nespelem, Washington. Georjean also serves as the Brownsfields Project Manager.

How did you gain the opportunity to work with the Colville Confederated Tribe?

I am a member of the Confederated Tribes of the Colville Reservation and have interests in environmental issues. When the project manager position was advertised, I jumped at the opportunity to work for my tribe in this capacity. Essentially, no one else wanted the job; so I got it. It was my lucky day. My educational background also helped. I have a double major in Human Services with a minor in Native American Studies, and I am a certified teacher with endorsements in social science, special education, and chemistry. I began my masters degree in education administration and plan to finish my studies in the future.

What's most interesting about your work?

My work involves all aspects

of working with public in various methods, such as raising awareness, establishing policies, and promoting sustainability land use plans. The most interesting aspect of my work involves collaborating and networking with various local tribal communities and tribal, state, and federal governments while promoting regulatory measures to protect human health.

Is there a connection between your background and Native Americans?

My mother is Okanogan of the Colville Tribe, and my father is Kutenai of the Confederated Salish and Kootenai Tribes of the Flathead Reservation. My children, grandchildren, and I are all members of the Colville Tribe.

Tell us about your Tribe's history and current structure.

The Tribe was declared a federally recognized Tribe by President Grant in 1872. There are 12 unique tribal bands joined together to form the Colville Tribe. Historically, the Tribe's main economy has been the timber industries and agriculture; however, more recently human services is increasing. The reservation is comprised of nearly 1.4 million acres and includes

approximately about 8600 members of the Tribe.

What do you want people to know about your work with FOSTTA, your tribe, etc.?

FOSTTA is providing me the opportunity to learn first hand about EPA. I am especially interested in understanding how and in what ways EPA can coordinate effectively with tribal community efforts to protect and sustain their communities. It also allows me to network with other tribes, states and government officials regarding EPA federal laws, policies, and goals. As FOSTTA Co-Chairperson, I want to increase my knowledge of EPA's various media programs and support OPPT's tribal strategy and the FOSTTA Tribal Project. I want to help Native Americans realize that educating themselves about environmental hazards that may be located in their communities is top priority. Many tribal people take for granted that clean air and water will always be there, but we need to take the extra steps to guarantee clean air and water for future generations.

Interview with Fred E. Corey, new FOSTTA Tribal Affairs Co-Chairperson



Fred E. Corey is the other new FOSTTA Tribal Affairs project co-chairperson, as well as the

Environmental Director for the Aroostook Band of Micmacs in Presque Isle, Maine.

How did you gain the opportunity to work with the Aroostook Band of Micmacs?

My employment with the Tribe began in 1996. Prior to that time I was employed as an environmental chemist at a commercial environmental laboratory for several years and later as a project manager responsible for managing several large petroleum-contaminated remediation sites for an environmental consulting firm. During my tenure as a remedial project manager, I was contacted by the Tribe to discuss environmental consulting services that could be provided to the Tribe. Subsequent to my initial meeting with the Tribe, I was invited to submit a job application for an environmental position. Finally, I have a Bachelor of Science Degree from the University of Maine in Environmental Studies.

What's most interesting about your work?

In my position as Environmental Director, I am responsible for development and management of all tribal environmental programs. My work is interesting because of the challenge of developing and implementing an environmental protection program for the Aroostook Band of Micmacs that protects tribal health, natural resources, and culture. Whereas most environmental protection programs are only focused on protecting human health and the environment, a tribal environmental protection program also seeks to protect tribal cultural traditions that are the basis for the unique identity of the Tribe.

Tell us about your Tribe's history and current structure.

The Aroostook Band of Micmacs was federally recognized in 1991 and has just begun to re-establish a land base. Currently most of the Tribe's 1,200 members do not live on tribal land but live in geographically widely separated communities in Aroostook County. Aroostook is Maine's northern most and largest county and is larger than the states of Connecticut and Rhode Island

combined. In addition to the Aroostook Band of Micmacs in Maine, there are 27 other Micmac communities in the maritime provinces of eastern Canada, with a total population of over 50,000.

What do you want people to know about your work with FOSTTA, your tribe, etc.?

Since there are many toxics and pollution prevention issues affecting Tribes, but limited resources to address all issues at the same time, I would like to assist FOSTTA by identifying issues with the greatest significance to tribes, and therefore, allocating resources to address the most significant toxics and pollution prevention issues affecting tribes. I would also like to assist FOSTTA in coordinating its efforts with other Tribal environmental organizations to ensure that FOSTTA is utilizing its resources as efficiently as possible. Finally, I would like to assist in outreach. With over 550 federally recognized Tribes, it is important that the cultural diversity of North American tribes is recognized and considered as new toxics and pollution prevention initiatives are developed by EPA.



Looking into the Indian Medicine Wheel, the *Circle of Life* Gardens

By Martin Ogle, Northern Virginia Regional Park Authority

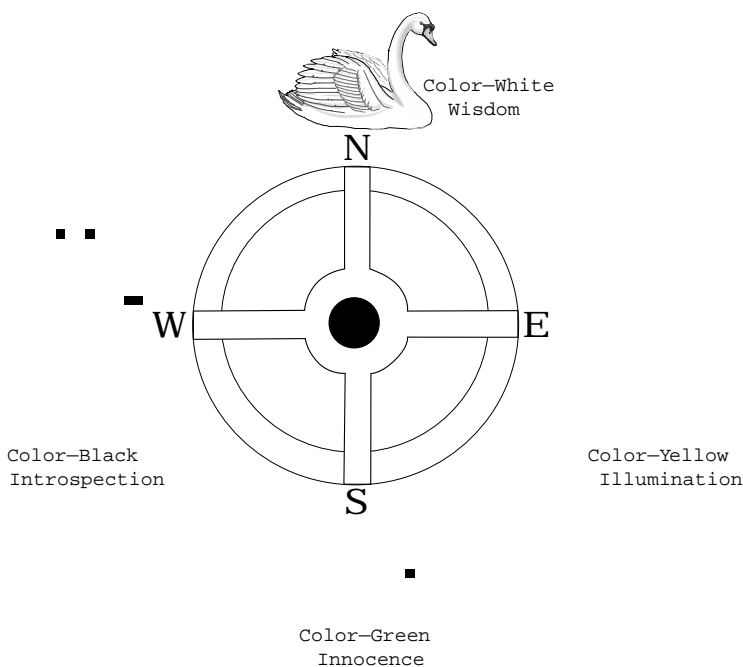
The “Circle of Life” describes the transition of an organism’s life from the beginning to the end, and includes all the “paths of life” it encounters. The “Circle of Life” concept is familiar to many people, especially those involved in environmental education and teachers, as well as students of ecology, life sciences, geology, and biology. Its spiritual meaning is also appreciated by people of all ages and formed the foundation for indigenous cultures of the world. The “Circle of Life Garden” at Potomac Overlook Regional Park is an existing, symbolic learning center of life’s cyclical path. The entire garden area at the regional park, located in Arlington, Virginia, is designed with five

areas of flowers, plants, and fruits, along with an Indian Circle Garden. The Indian Circle Garden is inspired by the Native American “medicine wheel,” based on the mythology of the Arapahoe, Crow, Cheyenne, and Sioux tribes of the West. The animals, colors, and significance of each direction, as seen in the illustration below, represent the seasons, peoples’ lives, and life in general.

The Potomac Overlook Indian Circle Garden is approximately 12 yards in diameter with two paths, representing the North-South and East-West trails. The paths divide the circle in four equal quarters of “seasonal gardens” that include plants of seasonal interests, such as zinnias, butterfly-weed, and

other plants attractive to butterflies within the summer garden. Planted at the center of the Indian Circle Garden is an apple tree, while wooden posts inscribed with “N,” “S,” “E,” and “W” are fixed outside the circle where each path begins. The other five areas of the garden include the sundial circle; an orchard of dwarf and semi-dwarf apple, pear, plum, and cherry trees; a berry patch with varieties of blackberries and raspberries; and native plant plots with seeds from local meadows, seed distributors, and other sources.

The Potomac Overlook “Circle of Life Garden” project was featured at the 11th Annual Potomac Overlook Open House and Heritage Festival on May 5, 2001 and is an excellent teaching tool and source of celebration that can be adopted at schools, parks, and personal properties. If you have questions or comments about Potomac Overlook “Circle of Life Garden,” please contact Martin Ogle, Potomac Overlook Nature Center, 2845 Marcey Road, Arlington, VA 22207, 703-528-5406, potomac@nvrpa.org.



Mark Your Calendars!

July 2001

10-12

Developing a Tribal Implementation Plan Workshop
Institute of Tribal Environmental Professionals
 Fond du Lac, Minnesota
 Christy Nations, 202-523-7792

30- August 1

National Assessment of the Worker Protection Program EPA Certification and Worker Protection Branch
 Lake Buena, Florida
 Sara Ager, 703-308-3003

August 2001

14

In the Light of Reverence
Public airing of film screening within "Point of View" showcase on PBS
 Christopher McLeod,
 650-747-0685

September 2001

5-6

Pesticide Spray Drift Conference
 Sacramento, California
 Carol Ramsay, 509-335-9222

17-20

Affiliated Tribes of Northwest Indians (ATNI) 48th ATNI Annual Conference
 Lincoln City, OR
 ATNI, 503-249-5773

20-21

Third National Tribal Pesticide Program Council (TPPC) Meeting
 Arizona
 Lillian Wilmore,
 617-232-5742

EPA Websites and Hot Lines

EPA	www.epa.gov
OPP	www.epa.gov/pesticides/
OPPT	www.epa.gov/opptintr
Pollution Prevention	www.epa.gov/opptintr/p2home
American Indian Environmental Office	www.epa.gov/indian
Asbestos Ombudsman Hotline	1-800-368-5888
EPCRA Hotline	1-800-535-0202
Lead Hotline	1-800-532-3394
National Pesticide Telecommunication (NPTN) Hotline	www.ace.orst.edu/info/nptn 1-800-858-7378
TSCA Hotline	202-554-1404

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