National Indian Program Accomplishments
EPA New England Report for 2007

Program Accomplishments by Goal

R1 Goal 1 – Clean Air

The Region arranges an annual meeting among the Maine Tribes, Maine DEP, and the Region to discuss data gaps in the air monitoring program and to improve cooperation among the group. By working with the states and tribes, the Region ensures the tribal monitoring is an integral part of the New England air monitoring network and includes tribal monitoring as part of the Regional Air Monitoring Network reassessment. In the redesign of the Regional Air Monitoring Program, tribal monitoring plays an important role in filling gaps in our mapping efforts, provides regional haze and deposition data, provides important ozone data and saves state resources by replacing state monitors in remote areas. To minimize costs, the Region works with the New England States to provide equipment, quality assurance audits, and on-site technical assistance and training to the tribes.

Many of the individual tribes conduct sophisticated air monitoring programs, some of which are done in cooperation with the state agencies. The Aroostook Band of Micmacs in Presque Isle, Maine continue to operate the IMPROVE (Interagency Monitoring for Protected Visual Environment) air quality monitors, with a data collection record of nearly 100%. Through http://wwwmicmacenvironmental.com the Aroostook Band of Micmacs continuously provides real-time AQI (Air Quality Index) values, real-time pollution concentrations, and real-time meteorological data to the public. The Penobscot Indian Nation also operates an IMPROVE sampling station which is located on the reservation. The tribe is represented by the Air Program Manager and the Natural Resources Director in the regional haze consortium: Mid Atlantic and New England States Visibility Union (MANE-VU) in consultation with other RPO's.

On the technical side, the New England tribes manage a monitoring program which includes 4 ozone monitors, 1 continuous PM2.5 monitor, 1 SO2 trace level monitor, 1 NO2 trace level monitor, 1 CO trace level monitor, 1 CO2 monitor, 3 IMPROVE monitors, 2 NADP samplers , 1 MDN (mercury) monitor and 1 hazecam. The ozone data from all 4 sites and the PM2.5 continuous data are all being submitted to AIRNOW. The IMPROVE data is being entered into the National IMPROVE database and the NADP and MDN data is being entered into their respective national databases. The air group in Region 1 provided AQS training to the Passamaquoddy, the Micmacs and the Penobscots and conducted air monitoring reviews for the Penobscot, Micmacs and the Wampanoag Tribes.

The Mohegan Tribe became the first tribe to develop a single source Tribal Implementation Plan (TIP) designed to protect air quality. A tribe may decide to implement only those programs, or even portions of programs, that are most relevant to the air quality situation on its reservation or other lands subject to its jurisdiction. The

Mohegan TIP establishes a federally enforceable cap on emissions of nitrogen oxides (NOx) from stationary sources owned by the Mohegan Tribal Gaming Authority.

The Wampanoag Tribe of Aquinnah on Martha's Vineyard is one of the easternmost sites in the country, and frequently records exceedances of ozone as a result of ozone transport from major metropolitan areas to the west and south. The Wampanoag also monitor shellfish and invertebrates for contamination resulting from air deposition under a Direct Implementation Tribal Cooperative Agreement (DITCA), and do fish tissue testing for mercury under a separate air grant.

The Passamaquoddy Tribe at Pleasant Point is the only East Coast Tribe submitting its air data to the Tribal Exchange Network (TREX) and also submits to the EPA AQS data base and Maine DEP. It has tested 130 homes for radon with 38 testing over 4pCi/l and initiated a remediation program with the Passamaquoddy Housing Authority to make these homes safe. Testing and remediation are also done for mold and lead.

The Passamaquoddy Tribe at Indian Township is contributing to the regional air quality monitoring program in Washington County, and participates with other air quality groups in the area such as the Domtar Paper Company to monitor off-reservation air quality. They are assessing contamination from toxic aerial depositions (e.g., mercury, cadmium, and dioxin) in subsistence foods and medicinal plants.

The Houlton Band of Maliseet Indians completed an EPA approved QAPP for Radon Assessment, tested 30 homes for radon, identified two households over the 4pCi/L action level and are mitigating the problem in those homes. Many other tribes also implement indoor air programs that deal primarily with radon, lead, asbestos and mold.

R1 Goal 2 - Clean Water

Water Quality Standards are also an issue of importance for the tribes in New England. A discussion around this issue was an important component of the 9th Annual Tribal/EPA Training Conference hosted by the Narragansett Tribe in Rhode Island in November, 2007.

Most of the tribes in New England are either riverine or coastal; all of them depend on clean water for sustenance as well as important traditional practices. Indian settlement acts have been a jurisdictional obstacle to the tribes establishing Water Quality Standards (WQS), and the relatively small size of most of the tribal lands means that the majority of discharges, both point and non-point source (NPS), are from off-reservation activities. There is cooperation between Tribes and State agencies at the staff level, and tribal monitoring programs fill important gaps in the state programs. Six of the

ten federally recognized tribes in N.E. have TAS for Clean Water Act, Section 106 programs.

In Office of Water's "Measure SP 14" reporting initiative, New England tribes account for more than 160 sites routinely monitored for seven key parameters: dissolved oxygen, pH, water temperature, total nitrogen, total phosphorus, pathogen indicators, and turbidity. Fourteen of those sites show depressed water quality and have remedial action underway. This includes a waste allocation study for the Penobscot River used to establish permit limits for discharges within the watershed; monitoring of aquatic benthic macroinvertebrates used to determine aquatic life criteria for wastewater licensing; installed river bank stabilization controls such as tree planting, and innovative wetland development for storm water control. Based on those activities, we expect that at least four sites will show improvement by 2012.

We now have five Tribes with TAS approval for the non-point source program: the Houlton Band of Maliseets, the Passamaquoddy Tribe at Indian Township, the Passamaquoddy Tribe of Pleasant Point, The Penobscot Indian Nation, and the Wampanoag Tribe of Aquinnah. Non-point source management accomplishments of the Maliseets include creating seven acres of riparian buffer by planting tree seedlings, 16 acres of tree planting on highly erodable land, three waterways, seven sediment basins/lip spreaders, one plunge pool, one nutrient and sediment control structure, 24 acres of environmentally sensitive agricultural land enrolled in USDA's Conservation Reserve Program, one "beaver deceiver" exclusion device installed to reduce road erosion, three unstable banks regraded and seeded or cobbled, an unstable section of road regarded and armored, a third culvert redesigned to direct runoff into a stream buffer, and more. As a result of non-point source and GAP grant activities, The Houlton Band of Maliseet Indians has reduced bacterial levels in a targeted storm drain from an average of 16,000 to approximately 350 colonies per milliliter, and 20 farmers have planted ground cover on 7,902 acres of crop fields, keeping approximately 2,371 tons of farm soil out of the Meduxnekeag River.

After receiving TAS approval, the Passamaquoddy Tribe of Pleasant Point has initiated a CWA 106 program. They are developing water quality standards and monitoring Boyden Lake which is a drinking water source. Fish tissue testing has been done in two adjacent bays for mercury and dioxins. For point source assessment, they are inspecting sewage lines for leaks. Construction grants for expansion of the wastewater plant have also been requested through work with the Indian Health Service.

The Penobscot water resources program was identified as a Tribal Success Story in the US EPA and US DOI Offices of Inspector General report, "Tribal Successes in Protecting the Environment and Natural Resources", May, 2007. Significant improvements were made to their model data management system. With assistance from USGS they were able to refine their data collection and use of their Penobscot Indian Nation environmental data management system. Those improvements facilitated and streamlined electronic entry of field and lab data, and improved processes and tools to assess in a timely manner whether water quality standards were being met. They have been hosting WQX training with all Tribes.

The Penobscot Indian Nation has also been nationally recognized for its outstanding work to restore endangered wild Atlantic salmon and other migratory sea-run fish while

balancing the need for hydroelectric power on the Penobscot river. The Tribe worked with the Penobscot River Restoration Trust (PRRT) and the PPL Corp., an energy company that owns dams on the river. The PRRT will remove dams to help restore native fisheries by improving access to nearly 1,000 miles of habitat for Atlantic salmon and several other species of sea-run fish.

The Mashantucket Pequot Tribe built numerous wetlands to receive and renovate storm water runoff from parking lots and roads. They received a merit award from The Soil and Water Conservation Society, Southern New England Chapter "for their exemplary commitment to protection of their resources through innovative wetland development for storm water control."

The Narragansett Tribe is examining non-point source pollution problems by developing monitoring and assessment initiatives to create Best Management Practices for waters within the reservation. The public water supply is being continually monitored, and they are building a new water line for their drinking water system.

R1 Goal 3 - Land Preservation & Restoration

Tribal lands in New England are generally pristine, and not in need of restorative work. However, there are two issues that fall under this goal. On some of the tribal lands, refuse and vehicles have been dumped. All of the tribes have ordinances prohibiting such dumping, but few are equipped to enforce them. The tribal lands are rural and to police the back roads and woodlands would require wardens the tribes cannot afford. This has led to repeated dumping at sites that have been previously cleaned up. Still, the region is working with tribes to shore up tribal prevention and enforcement. In one such area, the Wampanoag Tribe of Aquinnah has the significant additional burden of high cost to remove abandoned vehicles, since everything that goes on or off the island, where tribal lands are located, must go by boat. The Mohegan Nation is continuing a comprehensive program which recycles paper, plastic, cans and bottles, wood and metal from the gaming facility. The restaurants and cafeteria recover food scraps which are then used as animal fodder at Millaras Piggery and Country Gardens.

The Wampanoag Tribe of Aquinnah is evaluating the harm to surrounding resources from the high level of contamination left from bombing that was conducted on Noman's Island by the military. They also used EPA grant funds to create "Island Blue Pages", a guide to protecting the Martha Vineyard waters. In 2008 they will produce a Portuguese language version of the brochure.

Another situation is faced by the Aroostook Band of Micmacs in northern Maine. The tribe received a grant of land and housing from the Department of Defense, during the closure of Loring Air Force base. It turned out that the housing on the site, which the tribe needed, was heavily contaminated by lead and asbestos. This was remediated through a cooperative effort between the Tribe and the U.S. Army Corps. Of Engineers.

The Passamaquoddy at Pleasant Point Tribe received the first Region 1 tribal Brownfields grant in 2007. With this grant they are surveying and inventorying Brownfields sites, overseeing remediation activities, preparing a public record, and conducting site-specific activities including assessment and cleanup of the sites.

R1 Goal 4 – Healthy Communities and Ecosystems

Tribes in New England have many activities relating to healthy communities and ecosystems. Following the lead of the Passamaquoddy Tribe at Indian Township, several tribes have implemented "Head of Household" conferences which were originated to discuss lead and asbestos, but have since been expanded to cover a variety of community health issues including pesticides, mold, radon, and increased exposure to toxic substances occasioned by their more "nature intensive" life-ways.

Air and water monitoring by the Tribes, along with fish tissue testing, has revealed that lakes, rivers and streams in New England contain fish with high mercury content. Model estimated contributions of different sources to atmospheric deposition suggest that a majority of mercury deposited in New England waterways comes from sources outside New England. Once deposited in ecosystems, this mercury can be converted by microorganisms into a more toxic form that accumulates in fish and wildlife. Thus, deposition can lead to the consumption of mercury contaminated fish, and metals content (especially cadmium) in the liver of some game animals (principally moose and deer).

The Passamaquoddy at Pleasant Point completed a multi-media study of air pollutants tracked from EPA air models contaminating sustenance foods, including mackerel and porpoise in 2007. The results were analyzed by Maine Center for Disease Control which recommended consumption of porpoise of no more than once/month for the general population. Mackerel contamination was high enough to warrant further study. A software program to conduct sustenance food consumption surveys of the Passamaquoddy and other Region 1 Tribes was developed.

A broad life-ways study of the impacts of contaminated food sources and crafts materials is being undertaken by the Aroostook Band of Micmacs under a Direct Implementation Tribal Cooperative Agreement involving the cooperation of all the Maine tribes. The moose and deer liver study was conducted by the Passamaquoddy Tribe of Indian Township and an update of the study is in the planning phase. These issues present significant cultural challenges, since the tribal culture has been involved with these animal and fish species since time immemorial. While health officials advise that it may be healthier to eat fish and seafood than not (because of the low fat and high alpha 3-omega fatty acids), Tribal members typically consume more fish and wild game than other populations in the same area. To suddenly be told that some of the animals are not safe to consume forces a choice between personal health and important cultural practices, representing a clear threat to the tribes' cultural identities.

The Aroostook Band of Micmacs developed a "Robby Raccoon" Mascot and Lead Poisoning Prevention Program for children ages 3 – 5 years. "Robby Raccoon" is a life size raccoon (costume) who along with the Micmac Lead Program Manager visits the Tribe's Head Start program a couple of times a year to teach the children about the dangers of lead and how to protect themselves. The Micmac Lead Program also provides environmental training to Tribal staff and members of all the New England Tribes participating in tribal based environmental protection.

R1 Goal 5 – Compliance and Environmental Stewardship

Environmental stewardship as well as compliance rank high on the priority list for New England Tribes. The Narragansett Tribe developed an appropriate curriculum and is conducting environmental education for the tribal community as well as for youth groups. A nature center and trail are being built. Also, they have hired and trained an environmental officer to enforce tribal codes, and train the community in environmental laws, management, and spill clean up.

With GAP funds the Passamaquoddy Tribe of Indian Township is supporting solid waste management activities for 150 homes and facilities. This includes composting, recycling and hazardous waste management. Environmental education is also being conducted. A curriculum was developed for the Head Start program and education support is being provided for the local Watershed Coalition and the tribal youth group.

The Passamaquoddy Tribe of Pleasant Point writes a newsletter regarding environmental affairs. They also conduct education through outreach, the school curricula, and tribal youth groups.

In homeland security, the proximity of major ports – Eastport, St. John, and the Pt. Leproux nuclear reactor is a major concern. The Passamaquoddy Tribe of Pleasant Point is conducting emergency response workshops and has obtained equipment to provide a rapid response capability.

The Penobscot Indian Nation Water Resources Program (WRP) staff completed the Hazardous Waste Site Personnel Basic Health and Safety course. These staff members have been working towards obtaining EPA Inspector credentials. WRP staff discovered, investigated and reported to Maine DEP, Maine LURC or EPA numerous violations of environmental regulations affecting the Penobscot reservation. Some examples include: 1) monitoring data collected by WRP were used by ME DEP to issue a Notice of Violation to the Katahdin Paper Company for discharging excessive phosphorous causing a cyanobacteria/algel bloom and impairing water quality; and 2) staff discovered a broken wastewater line in the town of Mattawamkeag's public water treatment system.

The Mashpee Wampanoag tribe, which is located on Nantucket Sound, achieved formal recognition on May 23, 2007, as the 10th federally recognized tribe in New England under Department of Interior rules. EPA New England is now working with the Mashpee Wampanoag Tribe in a government-to-government manner as it does with every federally recognized tribe in New England. The Tribe has established a Natural Resources Environmental Protection Department to manage and protect Tribal land and resources. They will be hosting a tour for the BIA, Fish & Wildlife, and EPA officials on August 21/22 of 2008.