



# Tribal Air Resources Journal

Accomplishments, Obstacles, and Setbacks of  
EPA Region 5 Tribal Air Quality Programs  
2012 Edition

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air toxics

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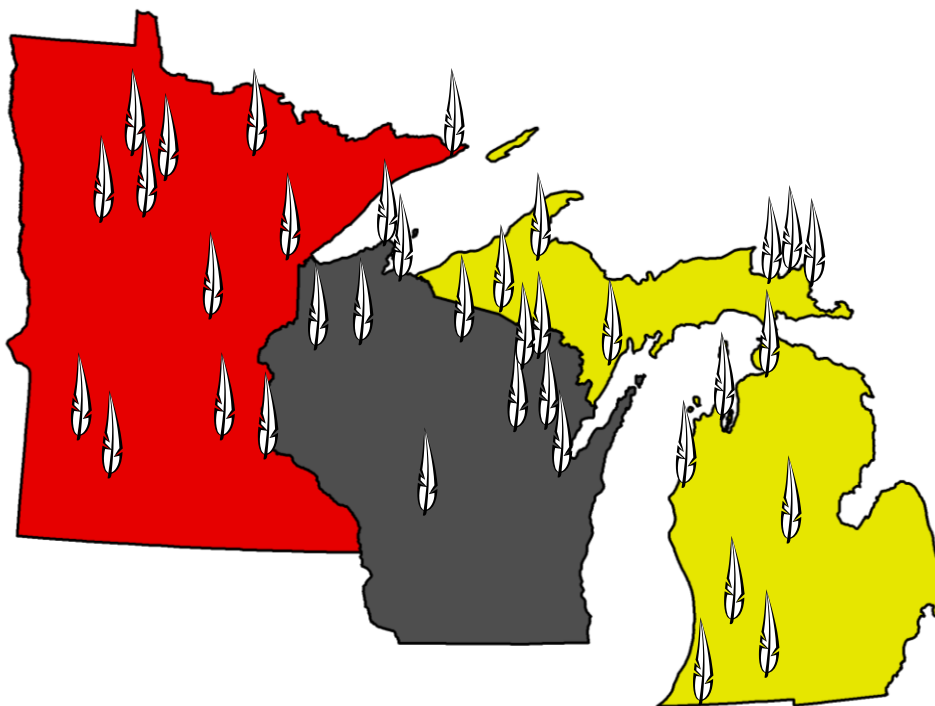
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*Tribal Air Resources Journal* was started by Tribes in EPA Region 5 to better publicize program achievements, downfalls and struggles to their Tribal communities as well as the general population. The environmental staff at these Tribes perform many tasks that are often performed by multiple individuals in state and local governments. Because of this, Tribal professionals are multi-disciplinary and often understand their air quality issues better than staff working for other governments. This situation affords Tribal staff unique opportunities to manage their air resources as each sees fit. However, it also presents distinctive problems for their staff to overcome. Each Tribe is a sovereign nation and applies for, receives and is responsible for administering its own funding and is not linked to the others in terms of governance. It is our hope that this publication will better communicate the situation to you, the reader.

*The colors in the logo above are taken from the Native American medicine wheel to show our relationship to each other and the environment. The feathers were chosen to mark the location of the Tribes as a symbol of the air and natural resources that we are protecting.*

# 2012 Summary of Facts for EPA R5 Tribes

## Clean Air Act Implementation

- 4 Tribes currently have Treatment as a State (TAS). Additionally, 1 is in EPA review and 2 more are in process at EPA. Of the 4 all have CAA 105 reduced match and CAA 505(2)a for Title 5 notification. One has added CAA 126 Authority.
- 1 Tribe has Class 1 air status, 1 has sent EPA a Letter of Intent; others have it in long range plans.
- 1 Tribe is in draft stages of a Tribal Implementation Plan, 2 Tribes are in the early stages.
- SIP Rule change for Wisconsin to comply with Forest County Potawatomi Class 1 Redesignation has been completed and amended into the State SIP for FCP Class 1 Area administration.

## EPA Funding

- **Clean Air Act** – 15 Tribes requested \$1,391,127 for air quality project/program support from EPA. 14 Tribes were partially funded in FY 2012 with R5 Tribal STAG funding totaling \$1,082,000. One new Tribe was funded. One Tribe requested a no cost extension. 11 Tribes received CAA 103 grant funding and 4 Tribes received CAA 105 grant funding. 3 of the 105 grantees have incorporated into a PPG grant for FY 2012.
- **Tribal Radon SIRG Grants** – 3 Tribes received funding in FY 2011; Tribes were awarded funding with a 25% match as the Tribes had TAS status. Other Tribes are utilizing their GAP funding to do radon outreach and testing projects.
- **Office of Enforcement and Compliance Assurance (OECA) HQ Environmental Justice Grant** – 1 Tribe awarded \$20,000 for Radon Mitigation work in EPA's additional innovative projects for low income areas funding.
- **Seventh Generation Initiative EPA Grant** – 3 EPA R5 Tribes in FY09 each awarded three year \$50,000 grants to improve air quality by implementing sustainable projects. OAQPS pilot project for EPA R5 Tribes.
- **ORIA Special Projects Funding** – partial funding awarded for the *Tribal Indoor Air Quality in Casinos* workshop.
- **DITCA for EPA R5 MNSR in Indian Country** – awarded to a consortia to develop a minor source inventory on Tribal Lands.
- **DERA Diesel Grant** – 1 Tribe awarded \$64,633 to retrofit and repower diesel engines.
- **Community Scale Air Toxics Study** – EPA Grant partnership with a Tribe, MPCA, Minnesota Department of Health.
- **School Air Toxics Project** – 2 EPA R5 Tribes participated in FY 11.
- **Indoor Air Quality** – Multiple Tribes across EPA R5 do voluntary IAQ work via CAA 103/105 STAG, TOSCA, SIRG, GAP, and OECA EJ funding sources to implement a wide range of IAQ projects. EPA R5 has 2 Tribal IAQ Centers of Excellence.

## Other Funding

- **Tribal Composting Grants** – Cooperative Indian Health Service and Minnesota Pollution Control Grants to implement composting projects on a Reservation with benefits of air emission reductions.
- **MPCA Toxics Project** – 2 Tribes FY11 and 1 in FY12 in yearlong air toxics studies on Reservations.

***Tribes in EPA R5 are engaged in and serve on a wide variety of  
Regional and National Workgroups and Committees***

*National/Regional Committees:*

- Clean Air Act Committee – EPA R5 Tribal Representative holds a voting seat and a member of the Permits, NSR and Toxics Workgroup
- Tribal Air Monitoring Support Center – EPA R5 has a steering committee representative
- National Tribal Air Association – 2 EPA R5 Reps, 1 serves as Vice Chair of the Executive Committee
- National Tribal Science Council – EPA R5 Rep
- National Tribal Operations Council – EPA R5 Rep
- Air and Waste Management Association – Vice Chair of ITF-11: Indigenous Environmental Affairs
- CENSARA has two Tribal participants. *Former* Central Regional Air Planning Organization RPO had 3 EPA R5 Tribal Reps serving as Vice Chair, Secretary/Treasurer, and as a member of the Steering Committee. This ended in 2012.
- Minnesota Clean Air Discussion – Tribal participating member on 3 workgroups

*Workgroups:*

- National Minor New Source Review workgroup
- EPA R5 Tribal and EPA Mining workgroup
- Great Lakes Caucus of the Western Mining Action Network
- EPA R5 Tribal Indoor Air Quality workgroup
- National Ambient Air Quality Standard Designations workgroup
- National Tribal Air Association and EPA monthly update conference calls
- Minnesota Tribal Native Atlas Workgroup

*Regional Meetings:*

- Annual EPA R5 Tribal Air Meeting
- EPA R5 Tribal monthly air media conference calls
- Multiple EPA/Tribal consultation calls
- Minnesota Tribal Quarterly Mining Meetings with Minnesota Pollution Control Agency and Division of Natural Resources
- Quarterly Minnesota Reservation Technical Staff Environmental Council (MNTEC)
- Michigan Tribal Environmental Group (MTEG)
- Wisconsin Tribal Conservation Advisory Council (WTCAC)

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## Abbreviations

CAA	Clean Air Act
CAA 103	Clean Air Act Section 103 Funding
CAA 105	Clean Air Act Section 105 Funding
CENRAP	Central Regional Air Planning Association
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
EI	Emissions Inventory
EPA R5	Environmental Protection Agency Region 5
ETS	Environmental Tobacco Smoke
GAP	General Assistance Program
Hg	Mercury
HUD	Housing and Urban Development
HVAC	Heating, Ventilation and Air Conditioning
IAQ	Indoor Air Quality
ITEP	Institute for Tribal Environmental Professionals
MET	Meteorology; Meteorological
MPCA	Minnesota Pollution Control Agency
NAAQS	National Ambient Air Quality Standard
NO <sub>x</sub>	Oxides of Nitrogen
MNSR	Minor New Source Review
NSR	New Source Review
NTAA	National Tribal Air Association
O <sub>3</sub>	Ozone
pCi/L	picocuries per liter
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter with a diameter of less than 10 micrometers
PM <sub>2.5</sub>	Particulate Matter with a diameter of less than 2.5 micrometers
ppm	parts per million
PSD	Prevention of Significant Deterioration
Rn	Radon
RPO	Regional Air Planning Organization
SGI	Seventh Generation Initiative
SO <sub>2</sub>	Sulfur Dioxide
TAS	Treatment as a State
TSP	Total Suspended Particulates
TAMS	Tribal Air Monitoring Support Center
VOC	Volatile Organic Compounds



## **Bad River Band of Lake Superior Chippewa Indians**

Nathan Kilger – Air Quality Specialist

Program in Existence since – 2001

Program Projects – PM<sub>2.5</sub>, O<sub>3</sub>, MET, Rn, IAQ

Location – Odanah, WI

Bad River started its Air Program under the CAA 103 grant funding in 2001. The Tribe continues to be most concerned in the maintenance of the pristine environment found along the southern shore of Lake Superior and the protection of human health.

Priorities include protecting the 16,000 acres of Kakagon & Bad River Sloughs, most recently designated a wetland of international significance by the Ramsar Convention, and a vital part of the Tribe's culture. The health of the entire Bad River watershed is also a shared priority for both air and water quality, now and seven generations into the future.

Ambient air quality affects not only the plant and wildlife communities that sustain this culture, but also the 1,200 Tribal Members living on the Reservation. Challenges include dust from unpaved roads, burn barrel usage, a major highway that bisects the Reservation, and other nearby pollution from large sources located only a few miles from the Reservation's boundary.

Despite these challenges, current levels of O<sub>3</sub> and PM<sub>2.5</sub> matter remain below the established National Ambient Air Quality Standards and it is the goal of the Bad River Natural Resource Department to protect and maintain pristine air quality for current and future generations. The first step towards this goal was achieved in February 2005 when the Bad River Band of Lake Superior Chippewa received TAS.

There are also a multitude of indoor environmental issues due to aging and improperly built housing and buildings, poor drainage designs, and clay soils. There are 171 housing units under the Bad River Housing Authority and an additional 300 plus Tribal private homes within the Bad River Reservation. IAQ and Rn assessments are ongoing and to date 100% of housing units have been tested for Rn, contributing to a total of 54% of Tribal homes tested.

The IAQ Program will continue to work with the Bad River Health & Wellness Center, Housing Association and other Tribal Departments on IAQ & Rn assessments, along with other Home Assessments conducted by additional Programs, to completely address the multiple factors related to indoor environmental health issues. Working in correlation with other Tribal Programs will assure the Tribe of the indoor environmental issues and concerns within Tribal homes and help assist them in their home improvement plans.



Bad River Natural Resource Department

<http://www.badriver-nsn.gov/natural-resources>



### **Bois Forte Band of Chippewa**

Troy King – Environmental Health Specialist

Program in Existence since – 2002

Program Projects – IAQ, asthma awareness, EPA R5 IAQ trainings, new home design and testing, ETS inspections and partnership projects

Location – Nett Lake, MN

Bois Forte Environmental Services' IAQ Program, currently in its 11th year of funding under EPA and CAA funds, provides unique environmental protection to Bois Forte Band Members and also assists in implementing EPA's IAQ goals throughout EPA R5. Our IAQ Program works in close association with the Bois Forte Housing Department (who manage over 150 homes), and Bois Forte private homeowners (there are 140 privately-owned homes) to perform IAQ assessments and project supervision in homes and all Tribal government buildings. Our work focuses on combating any and all indoor contaminants we are asked to attack, although mold and moisture seem to be our main enemy. We are also asked to test for and find solutions to problems related to CO, HVAC and ventilation/filtration problems, VOC, sewer gases, ETS, Rn, dust and ultrafine particles, asthma triggers, pests, and whatever new threats emerge. We perform roughly 100 IAQ inspections per year at Bois Forte and elsewhere in EPA R5, and oversee roughly 25 IAQ related remediation projects per year.

As a result of our efforts of extending expertise, guidance, and training to other EPA R5 Tribes, as well as providing site visits and assistance with IAQ investigations and recommendations, we have received the honorable designation by EPA R5 as a "Center of Excellence" for our IAQ Program. Partnerships have been formed with many neighboring EPA R5 tribes' environmental, health and housing departments, and many training and inspection visits to other tribes have been performed over the past ten years.

### **Bois Forte IAQ Program's Recent Achievements**

In the past year we completed the following important projects: 1) developing and hosting a Clean & Healthy Tribal Casinos Workshop at Grand Portage, where we discussed, brainstormed and held hands-on technical sessions regarding reducing and/or eliminating ETS in Tribal casinos. The Workshop was attended by 70 individuals from the Environmental, Health, and Casino maintenance fields, 2) our Environmental Health Specialist received certification in a 40 hr building energy auditing course, to further our work in weatherization and mold prevention studies, and 3) assisted in the design, project supervision and HVAC/blower door testing of 30 new housing units at Bois Forte.

In the upcoming year we plan to continue to lead EPA's IAQ Workgroup, where we hope to continue collaborating with Montana State University to host training sessions in EPA R5, as well as continue to build on the momentum of the ETS in casinos Workshop and get some projects rolling throughout EPA R5.

**Low cost way of testing air flow of a bath fan**





## Fond du Lac Band of Lake Superior Chippewa

Joy Wiecks – Air Quality Technician

Alex Jackson – Air Program Coordinator

Program Projects – Ambient Air Monitoring O<sub>3</sub>, Hg Deposition, Permit and Regulation Review, etc.

Location – Cloquet, MN

The Fond du Lac Band of Lake Superior Chippewa (FdL) was the first Tribe in EPA R5 to be granted Tribal authority to administer parts of the CAA on January 7, 2004. The Program provides the Band with expertise on environmental issues related to air quality and climate change. In order to protect FdL resources, the Program reviews permits, regulatory actions, and provides education and outreach to Band members. The process has enabled the Reservation to develop the Program, assert its sovereignty, and achieve an excellent working relationship with Minnesota and Wisconsin permitting agencies, and with EPA R5. Several mining projects and related industries are currently under review that will impact air quality in EPA R5 and Program staff intends to ensure both local and federal clean air objectives are met.

The Program monitors O<sub>3</sub>, and wet deposition Hg. We recently began a leaf litter Hg dry deposition study to supplement our wet deposition data, and hope to have results by early 2013. Air Program staff submitted a draft Tribal Implementation Plan in March 2006. Work on this document continues. Joy Wiecks, Air Quality Technician, received the the 2011 Virgil Masayesva Excellence Award through the Institute for Tribal Environmental Professionals. This award recognizes her for achievements in Tribal air quality policy activities. Joy serves on the EPA's CAA Advisory Committee. Alex has been taking steps to become proficient in dispersion modeling, including attending an AERMOD course. Due to the complexity and changeable nature of the field, this will be an ongoing effort.

Outreach activities include educating Band Members about air quality and its effects on health, especially asthma and heart disease. FdL's Air Program staff continue to explore many options for improving the Reservation air, and as a result making life more comfortable on and around the Reservation. The Band recently was selected as a host site for a Green Corps volunteer, who will be working with environmental staff on exploring ways to reduce the Band's carbon footprint. The Air Program also installed pre-heaters in five of its Reservation school buses to reduce idling times and is working on developing a Reservation-wide anti-idling policy.

FdL has also been active in IAQ. In the past we have run lead abatement and Rn assessment projects on the Reservation. After a major flooding event in June 2012, Environmental Staff were instrumental in helping with housing clean up and mold prevention.







## Forest County Potawatomi Community

Natalene Cummings – Air Resources Program Director

Joe Cebe – Air Monitoring Specialist

Program in Existence since – 2002

Program Projects – NO<sub>x</sub>, O<sub>3</sub>, SO<sub>2</sub>, Hg, Acid & Hg dep, PM<sub>2.5</sub>, MET

Location – Forest County, WI

In an effort to protect the natural and cultural resources of the Forest County Potawatomi Community from any degradation from pollution sources located outside of the Reservation, the Tribe applied for redesignation of its airshed to Class I in 1994. By 2002, the Tribe had established an ambient Air Monitoring Program to establish the baseline for air quality on the Reservation. Beginning first with O<sub>3</sub>, SO<sub>2</sub> and particulate, the Program now also includes nitrogen oxides, vaporous Hg, continuous PM<sub>2.5</sub>, and acid and Hg deposition, and is considering the addition of IMPROVE sampling for visibility in 2013/14.

By 2008, the EPA R5 had redesignated the Reservation to Class I, providing the Reservation with tighter limits on allowable pollutant levels in air pollution permits issued for sources locating nearby than in other (Class II) areas in the country. Class I also provides the Tribe a voice in the air pollution permitting process. In 2010, the Tribe obtained TAS that enables the Tribe to receive notices from the state/s of operation permits being issued/reissued, and provides “clout” to any comments or concerns the Tribe may have over a permit.

Having these authorities to participate in the air pollution permitting process and to comment on permits requires that the Tribe have the knowledge and ability to review permit applications and the permits themselves and insure they contain the proper controls and protections. While FCPC currently contracts with environmental consultants to review the larger, more complicated permits/applications, in-house staff are working to develop the skills and experience on smaller, less complicated permits.

Providing input on proposed rulemaking on both the federal and state level continues to be another important aspect of the FCPC Air and Legal Programs.



**Tribal youth member Ian Waubanasum  
collects the PM<sub>2.5</sub> particulate sample**



## **Grand Portage Band of Lake Superior Chippewa**

Stuart Oberg – Air Quality Specialist

Program in Existence since – 2003

Program Projects – PM<sub>2.5</sub>, IAQ, Asthma Outreach, Regional Haze, Renewable Energy, Environmental Education, Climate Change

Location – Grand Portage, MN

The Grand Portage Band of Lake Superior Chippewa is concerned with maintaining clean air to protect the health of humans and our supporting biosphere and to preserve and protect the traditional resource-dependent lifestyle that is crucial to the spiritual and cultural health of the Anishinaabe people.

Although Grand Portage is at the far northeastern corner of the state the Treaty of 1854 gives us the rights to hunt, fish and gather over millions of acres adjacent to our Reservation so any threat to the environmental health of the region affects us directly. In recent years there has been a flood of new mining proposals in the Ceded Territories that are far different than the iron and taconite mines that have existed for decades, and these non-ferrous mines could pose a threat to the air and water quality that our people depend on. In order to expand the capabilities of the Air Program to deal with these threats Grand Portage has applied to the EPA for TAS designation which would put us on equal footing with Minnesota when commenting on these new mines.

The Air Program monitors ambient air for PM<sub>2.5</sub> and haze for both baseline data and to alert the local public if air quality has deteriorated enough to affect the health of sensitive people. We alert the local clinic to advise these individuals to stay indoors and avoid strenuous activities, and we also alert the local radio station as well as through mass e-mails and posts the air quality blog “Breathe In The Air”. The blog is part of our larger outreach and education Program which promotes clean air and a healthy environment through Programs at the Oshki Ogimaag School (K-6) and through posters and Programs for the public at large.

IAQ is of great concern for the Program, and we have recently been awarded a small grant from the Minnesota Department of Health to assist people with asthma on the Reservation. This allows us to work with the local Health Services to identify and help people improve the air quality in their homes and to reduce the triggers that can irritate asthma.

The Tribal Council has been active in pursuing alternative energy sources for the Reservation and is looking at both wind power and biomass as possible sources to make the power grid more reliable and to reduce our production of greenhouse gasses. Climate change is a very real threat to our natural resources and with Lake Superior rapidly warming and our moose numbers declining it will impact our management strategies both now and in the future.

Air Quality Blog: <http://gpairquality.blogspot.com>





## Ho-Chunk Nation

Kevin Gunderson – Environmental Specialist

Program in Existence since – 2006

Program Projects – Rn and Mitigation, Asthma, & IAQ

Location – Black River Falls, WI

The Ho-Chunk Nation initiated its Air Program through the development of an Asthma Program that focused on education and awareness. Part of the Program also provided some resources to reduce environmental asthma triggers such as dust mites, ETS and mold/moisture control. The Ho-Chunk Nation Sanitarian would perform a site visit to evaluate potential triggers in the home, provide education and finally assistance to easily addressable issues. The Ho-Chunk Nation received special funding for this Program and currently provides limited funding to the Program through the GAP Grant.

The majority of the Ho-Chunk Nation's Air Program is focused on Rn through education, testing, and limited mitigation assistance. The Rn Program was initiated as a special project by the Ho-Chunk Nation Environmental Health Department (DEH) through a testing Program in one of the Nation's residential communities. Through this monitoring Program the DEH identified 15 homes that exceeded safe levels of Rn. Three homes received mitigation assistance through special projects funding. The remaining homes received mitigation assistance through an EPA R5 Rn grant, which also included workshop for Tribal Housing Departments and significant educational Programs that have continued through limited funding from the GAP Grant.

The DEH annually has a booth at the General Council, which is a meeting of the Ho-Chunk Nation's membership. The DEH also submits articles in the Nation's paper and attends numerous community events to provide education and testing services to the Nation's membership.

### The Department of Environmental Health Radon Booth at the 2011 General Council





### **Inter-Tribal Council of Michigan, Inc.**

Travis Maki – Environmental Specialist

Program in Existence since – 2000

Program Projects – PM<sub>2.5</sub>, MET, O<sub>3</sub> and Regional Haze monitoring

Location – Sault Ste. Marie, MI and Bay Mills, MI

Since 2000 ITCMI has been assisting the Sault Tribe of Chippewa Indians and the Bay Mills Indian Community with a unique transboundary air pollution problem. Currently ITCMI's monitoring efforts are focused on PM<sub>2.5</sub>, Regional Haze, O<sub>3</sub> and MET data and these efforts are also in coordination with the Michigan Department of Environmental Qualities monitoring network. As part of the work with the MDEQ, ITCMI is now uploading data to the MiAir Website.

As of 2012 ITCMI has also started working with the Saginaw Chippewa Indian Tribe and the Lac Vieux Desert Band of Lake Superior Chippewa on Emission Inventories and the Tribal Authority Rule. Emission Inventories are being completed for each Tribe as well as education and technical assistance with the Tribal Authority Rule and its TAS provisions.

The ITCMI Air Monitoring Project is funded through a CAA 103 grant and with this funding the Air Monitoring Project pursues the goals of: Tribal education, pollution reduction within the Tribal community and ultimately improving and securing the health and welfare of the residents.



ITCMI Website

<http://www.itcmi.org/services/environmental-services>

Sault Ste. Marie, MI Haze Camera

<http://www.mwhazecam.net/stmarie.html>

ITCMI TREX Network Page

[http://trexwww.ucc.nau.edu/cgi-bin/daily\\_summary.pl?cams=901](http://trexwww.ucc.nau.edu/cgi-bin/daily_summary.pl?cams=901)

MiAir Website

<http://deqmiair.org/monitoringdata.cfm?site=4130>



## **Keweenaw Bay Indian Community**

Lauren Nenadovich – Air Quality Specialist

Program in Existence since – 2012

Program Projects – Air Quality Assessment, Inventory Preparation Plan

Location – Baraga/L'Anse, MI

With its 2012 CAA 103 award, the Keweenaw Bay Indian Community is working to develop its first Tribal Air Program. The Tribe is currently establishing a basic air quality assessment and working towards completing an emissions inventory

The Keweenaw Bay Indian Community (KBIC) is located in the Western Upper Peninsula of Michigan. The KBIC L'Anse Reservation encompasses over 55,000 acres which includes 17 miles of Lake Superior shoreline, 80 miles of streams and rivers, 15,000 acres of lakes, and 3,000 acres of wetlands. The Reservation borders the Village of L'Anse and envelops the Village of Baraga. KBIC also has jurisdiction over the Ontonagon Reservation located in Ontonagon County and over land holdings in Marquette County. Much of the area in and around the L'Anse Reservation is pristine shorelines and woodlands with the Keweenaw Bay of Lake Superior serving as a picturesque backdrop.



**Typical KBIC Lake**

The area is also home to much industrial activity. In that, the need to develop a Tribal Air Program is critical. With its proximity to industrial activity, the L'Anse Reservation is exposed to a number of air pollution sources. These sources range from power plants and mining exploration to manufacturing shops and transportation. Residential and commercial burn barrels, wood burning heat sources, and many unpaved roads also contribute to the area's air pollution. Currently, there is extremely limited data on air pollution and ambient air quality for this area of the Upper Peninsula. The nearest ambient air quality monitoring station is nearly 150 miles to the east located in the Seney National Wildlife Refuge. IAQ is also a concern with mold-related issues and elevated Rn levels documented in homes and businesses.

KBIC is working to establish baseline data in order to better understand and address air quality issues in the area. By establishing an air program, the Tribe can move forward in accomplishing its environmental goals and eventually obtaining CAA program delegation through the Tribal Authority Rule.



## **Lac du Flambeau Band of Lake Superior Chippewa Indians**

Bryan Hoover – Air Program Coordinator

Program in Existence since – 2008

Program Projects – EI, Capacity Building, Community Outreach and Education, Energy Upgrades

Location – Lac du Flambeau, WI

The Lac du Flambeau Tribe understands that clean land, clean water, and clean air are vital to sustaining the diverse wildlife and fisheries resources of the Tribe. The Constitution and Bylaws of the Tribe states the duties of the Tribal Council are, “to protect and preserve the Tribal property, wildlife and natural resources of the Lac du Flambeau Band of Lake Superior Chippewa Indians” and to “protect the health, security, and general welfare of the Tribe”.

The Lac du Flambeau Tribal Natural Resources Department assists the Tribal Council in fulfilling these stated responsibilities. The Tribe’s Integrated Resources Management Plan (IRMP), approved in 2008, states that developing a Tribal Air Quality Program shall be a priority of the Tribe. The IRMP has also included specific goals with regard to Reservation air quality, and the Tribal Air Quality Program.

The Tribal Environmental Program (est. 1991) has done significant work to protect Reservation air quality. Banning the use of burn barrels on the Reservation and regulating open burning on Tribal land are among these efforts. The Program also has conducted outreach and education, through publications and videos, to community members on these environmental threats, as well as potential concerns with IAQ.

Since 2008, the Tribe has utilized assistance from EPA R5 through CAA 103 funding to further develop the Tribe’s Air Quality Program. The Tribe has utilized EPA R5 assistance to develop a Reservation EI, implement a study on the effects of wood stoves on PM<sub>2.5</sub> levels on the Reservation, conduct education and outreach to the community, and to take a more active role in Federal air quality policy development.

The Lac du Flambeau Tribe’s Air Quality Program works directly with the Tribe’s Energy Program. The Tribe has recently utilized EPA funds to assist in implementing various energy efficiency and renewable energy upgrades to Tribal facilities, as a part implementing the Tribe’s Energy Plan, approved in 2009. The implementation of the Energy Plan and the Integrated Resource Management Plan has helped the Tribe reduce its Carbon and Hg footprints. This is especially important to the Tribe as fish are hazardous to consume from some of the water-bodies on the Reservation due to elevated Hg levels. The Tribe has made it a goal to reduce their contribution to these problems, and promote clean energy in order to protect their environment.

Recently, the Tribe is seeing local efforts to begin metallic mining again near the Lac du Flambeau Reservation. These potential mines are a great concern because the Tribe sees these projects as a significant threat to the air quality of the Reservation. The Tribal Air Quality Program and Tribal Natural Resources Department is currently working to make sure that the environmental security of the Tribe is considered as these mining projects potentially move forward. For more information, please visit [www.ldftribe.com](http://www.ldftribe.com)



### **Leech Lake Band of Ojibwe**

Brandy Toff – Air Quality Specialist

Sydney Harper – Air Quality Technician

Program in Existence since – 2001

Program Projects – Hg, IAQ, MET, PM<sub>2.5</sub>, Rn, Diesel, Solar, Permit Review

Location – Leech Lake Reservation, HQ located in Cass Lake, MN

It is critical for the Leech Lake Band of Ojibwe (LLBO) to continue to build capacity, and to develop and enhance its Air Quality Program to protect human health and trust resources for LLBO. This is attained by monitoring, implementing voluntary Programs, IAQ work, commenting on rules/permits, and providing education and outreach. Understanding the complexities of our LLBO airsheds and impacts to them is increasingly important in the review of Environmental Impact Statements and Title V permits on or near the Reservation. The Leech Lake Air Program (LLAP) has reason to be concerned and protective since the Leech Lake Reservation (LLR) is surrounded by 14 Title V facilities of varying industries with 23 additional existing or proposed mining facilities clustered, within or near our Ceded Territories. The Title V facilities include: coal fired EGUs, wood/paper facilities, waste incinerators, natural gas compressor stations, mining/steel facilities, and ethanol plants. The LLR also has over 168 minor sources that exist within the boundaries of the Reservation. We will work with EPA R5 for future delegation of the MNSR. LLBO also has an expanding IAQ problem that directly affects community member health on a daily basis.

LLAP is engaged on local, regional, and national venues (serves on NTAAs) and shares that information in the form of data, education, and outreach to LLBO communities, Tribes and related agencies.

The LLAP has set into motion several voluntary programs on and around the Reservation including: diesel retrofitting (65 school buses and 34 on/off road vehicles), burn barrel removal (89 barrels), Rn testing (1,016), mitigations (27), Rn resistant new construction (69), IAQ assessments (51), passive solar heating (8 residential, 2 large government buildings), wind feasibility study, large scale composting (5), and leading the Green Team. These are stepping stones to bigger and better projects in the future. The LLAP monitors in north central Minnesota filling data gaps regarding Toxics, PM<sub>2.5</sub>, Hg, and Meteorological data. In the past we have performed PUF sampling for dioxins and minivol PM<sub>2.5</sub> sampling. Currently, the LLAP is funded by: EPA R5 105 Air grant, EPA R5 Tribal Rn and Environmental Justice grants, and cooperating agency grants for composting/resilience. The Leech Lake Band received TAS in October 2007. The LLAP looks forward to delegation of the MNSR, building and expanding capacity to better serve LLBO, and working with partners to leverage resources.

Like us on facebook at Leech Lake Environmental and visit our website at [www.lldrm.org](http://www.lldrm.org)



**Leech  
Lake  
Billboards**





### **Little River Band of Ottawa Indians**

Jeremy Howe – Air Quality Specialist

Program in Existence since – 2005

Program Projects – O<sub>3</sub>, PM<sub>2.5</sub>, MET

Location – Manistee, MI

LRBOI began its Air Quality Program in September of 2005 with help from CAA 103 grant funding. The Tribe was concerned that O<sub>3</sub> transport up the Lake Michigan shoreline was adversely affecting air quality in Manistee County, Michigan. LRBOI felt this was highly likely because the county to the north and south were violating the NAAQS for O<sub>3</sub>. However, the State of Michigan chose to monitor for O<sub>3</sub> in these counties, but refused to in Manistee County.

Nevertheless, LRBOI was able to obtain CAA 103 funding for O<sub>3</sub> monitoring. In addition, the Tribe chose to fund monitoring for PM<sub>2.5</sub> due to a proposed coal plant (which subsequently was never built).

Ironically enough, LRBOI has an agreement with the State of Michigan for air monitoring help (things such as audits and lab filter weighing). Thus far, this has been a symbiotic relationship benefiting both sides. This is a relationship we hope to continue.

In addition to monitoring, the Air Quality Specialist has served on the TAMS Center Steering Committee for 3 years and one year as its chair. The TAMS Center is tasked with building Tribal capacity to monitor and study the air with the ultimate goal of cleaning it up.

LRBOI Home Page

<https://www.lrboi-nsn.gov>

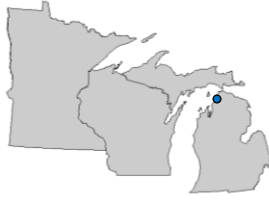
TAMS Center Page

<http://www4.nau.edu/tams>

**Lake Michigan Shoreline along Historical Reservation**







### **Little Traverse Bay Bands of Odawa Indians**

Doug Larson – Environmental Specialist – Air Quality

Christina Coger – Environmental Services Coordinator

Program in Existence since – 2004

Program Projects – EI, Capacity Building, Community Outreach

Location – Harbor Springs, MI

On September 21, 1994 the Little Traverse Bay Bands of Odawa Indians (LTBB) was federally reaffirmed with the signing of Public Law 103-324. The Tribe's 1855 Treaty delineated Reservation area encompasses approximately 336 square miles of land in the northwestern part of Michigan's Lower Peninsula and is bordered by Lake Michigan to the north and west.

In 2002, LTBB initiated an Air Quality Program that was focused on educational outreach and home Rn monitoring. In 2004, the Program was expanded to include a part-time Air Quality Specialist and again in 2007 when funding was secured to employ a full-time Environmental Specialist.

When LTBB expanded its Air Quality Program in 2007, we were concerned about the limited ambient air quality information available within the Reservation and the surrounding airshed. With the help of the TAMS Center, we began collecting PM<sub>2.5</sub> data in early 2009. The purpose of the monitoring was to establish baseline ambient conditions over a three-year period. However, due to funding cuts and lack of data QA/QC assistance, monitoring operations were suspended in early 2011.

After hiring a new Environmental Specialist in January of 2012, LTBB determined it was in the best interest of the Program to move in another direction. During this grant cycle, LTBB has been building the capacity of the Program in an attempt to secure funding for future monitoring on the Reservation. The new Environmental Specialist has been focused on updating and submitting our emissions inventory, as well as compiling an O<sub>3</sub> action summary.

An increasing concern on the Reservation is O<sub>3</sub> and its transport up the Lake Michigan shoreline. Currently, there are no O<sub>3</sub> monitors within 100 miles of the Reservation. However, monitors to our north and south suggest that it may be in the best interest of LTBB to monitor O<sub>3</sub>. During the remainder of FY 2012, we plan to compile and submit an O<sub>3</sub> action summary to our citizens and the Environmental Protection Agency. With the help of the TAMS Center, we hope to install and collect baseline O<sub>3</sub> data in 2013. We also hope that this data will allow us to secure funding to transition our Program towards permanent O<sub>3</sub> monitoring in FY 2013 and beyond.





## Lower Sioux Community

Deb Dirlam – Director

Jesse Anderson – Environmental Specialist

Department in Existence since – 1992

Program Projects – IAQ, Ambient Air Quality, Education

Location – Morton, MN

### THE LOWER SIOUX INDIAN COMMUNITY

The Lower Sioux Indian Community (LSIC) is located along the Minnesota River in Morton, Minnesota. The Reservation is comprised of 1,743 acres of “trust” land held for the Tribe and an adjacent 120 acres of fee land purchased in 2009. The Community contains mostly flat agricultural land along with approximately 250 acres of timber and brush and Minnesota River escarpment. The Tribal commercial center sits on the uplands and is surrounded by agricultural land, prairie pothole wetlands and Tribal housing. The Tribe is governed by the elected five-member Lower Sioux Community Council. The Tribe operates business enterprises such as a casino/hotel and other businesses. Approximately 600 Tribal members live on the Reservation in 150 single family dwellings. The regional land use is predominantly agricultural and several Tribal members hold assignments to farm.

### THE OFFICE OF THE ENVIRONMENT

In 1992 the Lower Sioux Indian Community and the Upper Sioux community, acting as a consortium within their governmental powers, established the Office of the Environment (OE) for the purposes of obtaining an EPA Multi-media grant to ensure compliance with federal and Tribal environmental laws; to educate and advise government and Tribal membership on environmental issues; and to develop environmental Programs. In FY 2006, the Tribal Governments agreed to dissolve the Consortium and conduct separate environmental Programs.

### Air Projects/Programs for FY 2013-2014

- Title V Reviews within a 50 mile radius of the LSIC Reservation boundaries
- Open Burning, Barrel Burning, Fire Prevention, Permitting
- Mold/Moisture Inspections
- Education on Carbon Monoxide, Rn, Mold/Moisture, Asbestos, Pests, Weatherization





### **Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians**

Shawn McKenney – Environmental Specialist

Program in Existence since – 2005 (GAP funding)

Program Projects – Waste Management, Alternative Energy, Air Quality, Climate Change, Water Quality

Location – Dorr, MI

The Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians (Gun Lake Tribe) is a federally recognized Indian Tribe located in southwest Michigan, approximately 30 miles south of Grand Rapids. The Gun Lake Tribe has an enrolled citizenship of 415. The Reservation is composed of 147 acres held in trust by the United States Government for the community and possesses no “exterior boundary”. The 7-member Tribal Council is an elected body, which has been empowered by the community, through the election process to act on behalf of the Tribal Citizens.

The Gun Lake Tribe is currently organizing policy procedures for air quality and alternative energy standards for adoption within Tribal ordinances. The Gun Lake Tribe Environmental Department currently offers Rn testing for all Tribal members and soon will be offering IAQ testing and remediation. The Environmental Department will also be implementing an Energy Star incentive program to reduce electrical cost to Tribal homeowners in FY 2013.

Air quality efforts have recently included a photovoltaic solar array installation at the Gun Lake Tribe’s community center. The community center receives electrical production from a local coal power plant. The solar array will reduce nitrogen oxides, sulfur dioxide, and Hg; and greenhouse gas emissions such as carbon dioxide that would be generated from the local coal power plant. The anticipated carbon monoxide reductions from the array are 5 tons per year. The Gun Lake Tribe believes this first alternative energy project to be an effective tool to address air quality goals/concerns within the Tribal service area and the State of Michigan. The project is anticipated to reduce the electrical cost at the facility by 20%.

**5.88kw solar panel array installed at the Gun Lake Tribe Community Center in Shelbyville, MI**





### **Menominee Indian Tribe of Wisconsin**

Gary Schuettpelz – Environmental Services Director

Heather Pyatskowitz – Water Resource Specialist

Joe Lyons – Water Resource Technician

Program in Existence – 2000 to 2010

Location – Keshena, WI

The Menominee Tribe originally started the Air Program in 2000 to monitor for acid rain and mercury. We participated with the National Atmospheric Deposition Network for laboratory work and reporting. After 2006 we no longer participated in acid rain because of funding cuts. The Program was funded by an EPA R5 103 air grant from 2006 – March 2009. We were able to keep the basic site operable for another year by running just the mercury collector and rain gage. This was done by using leftover money from the last grant. As of March 2010 we no longer have an outdoor Air Program.





## **Mille Lacs Band of Ojibwe**

Charles Jirô Lippert – Air Quality Technician

Program in Existence since – 1996

Program Projects – O<sub>3</sub>, VOC, Carbonyl, TSP, PAH, IAQ

Location – East/Central MN

The Tribe began its Air Quality Program in September of 1996 with the constitutional reform of the Mille Lacs Band of Ojibwe. In the beginning, our elders knew of what the Air Program should address and made it part of the Tribe's statutes, but had no way of addressing our concerns, only hoping our vision would come together in the future. At the same time, Minnesota was under pressure to provide a determination for CO and asked for partnership with the Tribe. From this partnership, the Tribe eventually got assistance from CAA 103 grant funding through EPA R5. From our humble beginnings of CO monitoring, we moved to monitor for PM<sub>10</sub>, then for PM<sub>2.5</sub> and O<sub>3</sub> only to find we were down-wind transport recipient of metropolitan Minneapolis-St. Paul's air pollution. This led the Tribe to begin monitoring for MET conditions, monitor for speciated PM<sub>2.5</sub> and for Hg. Today, the Tribe's Air Quality Program continues to monitor for O<sub>3</sub> and other air pollutants under a partnership with the Minnesota Pollution Control Agency (MPCA), assess PSD air permits issued by them that may impact our peoples and natural resources. In addition, the Tribe's Air Quality Program works closely with the Tribe's Public Health, Housing and Administrative offices to assess and monitor IAQ for domestic and industrial safety and hygiene.

In order to holistically achieve air quality protection, the Air Quality Program actively engages addressing air quality improvements both on regional and international levels. Together with the Water Quality Program, the Air Quality Program participates in the National Pollution Prevention Roundtable (NPPR), and was awarded to implement the Seventh Generation Initiative (SGI) in the Phillips Neighborhoods of Minneapolis, MN, from 2009 – 2012. Though those efforts and additional needs identified, in partnership with MPCA and the Minnesota Department of Health, Band's Air Quality Program have been awarded a 3-year long Community Scale Air Toxics grant to study poly-aromatic hydrocarbons (PAH) in the Phillips Neighborhoods.

Air Quality Program is currently working on TAS, seek redesignation as Class I airshed, and restore Hg, MET, continuous and speciated PM<sub>2.5</sub> monitoring to characterize, model and inventory air pollutants affecting the Tribe's airshed. A grant application to the Department of Health and Human Services, Administration for Native Americans (ANA) was successfully submitted in January 2012 to help restore past monitoring projects for the purposes of supporting the near-future Class I redesignation. However, though the ANA grant was successfully submitted and was selected, it was not funded; it is now eligible for automatic reconsideration for ANA's 2013 granting award cycle.

Mille Lacs Band of Ojibwe

43408 Oodena Drive

Onamia, MN 56359

<http://www.millelacsband.com>

Chief Executive: Melanie Benjamin

Commissioner of Natural Resources: Bradley Kalk

Environmental Programs Manager: Scott Hansen



## **Nottawaseppi Huron Band of the Potawatomi**

Amy Boetcher – Air Quality Contact  
Program in Existence since – 2001  
Program Projects – IAQ, Rn, Asthma  
Location – Pine Creek Reservation, Fulton, MI

The NHBP began their Air Quality Program in April of 2001 with help from a State of Michigan IAQ Rn grant, and later a CAA 103 grant. The Tribe is especially concerned about Rn because 80% of membership residents live in counties designated as having moderate to high potential for Rn levels above the recommended EPA guideline (4.0 pCi/L). We installed our first Rn mitigation system in a Reservation home and hosted an Rn Mitigation Workshop in 2008, bringing together other Tribal professionals, private and community parties interested in Rn-related issues. In 2009 and 2010, we continued to monitor Tribal community member's homes on and off Pine Creek Reservation for IAQ (including Rn), asthma triggers, and pest problems.

Our goals for 2012 were to address elevated Rn problems in all Reservation homes, and to further develop our Healthy Homes initiatives with our Health and Housing Departments. Although in 2011 we had an activated Rn mitigation system that was unsuccessful, we resolved



the issue by connecting the reduction pipe to the drain tile. We are in the process of installing mitigation systems in 9 additional homes this year (in addition to 4 in 2011), in coordination with our Tribal Housing Department. The newest 5 homes adjacent to the Reservation are LEED Gold Certified, and we are currently working with our Housing Department to mitigate those with high Rn levels. In addition, an Rn mitigation system will be built into our new Administration Building.

We participate in the NHBP Tobacco Coalition along with our Health and Housing Departments and community members. This coalition works to assess and change non-ceremonial Tribal tobacco policies to preserve culture and community health.

By 2013, we hope to have completed all Rn mitigations for all Tribally-managed homes, and continue to develop our inter-departmental Healthy Homes initiatives.

NHBP Website: <http://www.nhbpi.com>



**Through an InterTribal Council grant, the NHBP Environmental Department participates in the NHBP Tobacco Coalition with other NHBP Departments and community members.**



### **Oneida Tribe of Indians of Wisconsin**

Environmental Area Manager – Jeff Mears

Program in Existence since – 1985

Program Projects – IAQ

Location – Northeastern WI

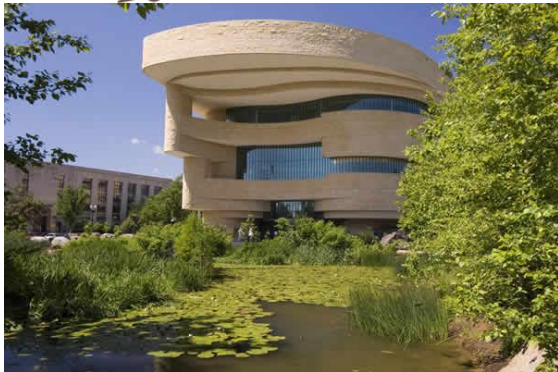
The Oneida Environmental Health & Safety Division started in 1985 and since 1994 has provided IAQ services to the Oneida community. Services include asbestos inspections and project management, lead in paint inspections and risk assessment, mold inspections, Rn sampling and general IAQ investigations. Staff are certified in various lead in paint and asbestos disciplines.

Oneida EHSD is in the second year of an EPA lead in paint hazards Direct Implementation Tribal Cooperative Agreement (DITCA). Under the DITCA, Oneida is working with other Wisconsin Tribes providing outreach and assistance on lead hazards and the EPA Renovation, Repair, and Painting (RRP) Rule.

Oneida EHSD has hosted, and presented at, climate change adaptation, and IAQ, trainings and conferences.

COASTAL PEOPLES ADDRESS CLIMATE CHANGE

## **FIRST STEWARDS**



**The First Stewards Climate Change Symposium was held at the National Museum of the American Indian in Washington D.C. July 17 – 20, 2012.**



**Oneida hosted an EPA Pb (lead) RRP class in April and August**



## **Prairie Island Indian Community**

Bradley Frazier – Environmental Specialist

Program in Existence since – 1993

Program Projects – Radiological Monitoring

Location – Welch, MN

The Prairie Island Indian Community (PIIC) is located on Prairie Island in southeastern Minnesota. Members of the Mdewakanton Dakota traditionally utilized Prairie Island as a temporary summer encampment due to its richness in aquatic and terrestrial resources.

There are 800 enrolled Tribal Members of the PIIC; about 320 currently reside on Prairie Island. The primary factors of concern regarding air quality at PIIC are radiological airborne particulates and IAQ problems due mainly to mold. The Prairie Island Nuclear Generating Plant (PINGP) is also on Prairie Island immediately adjacent to PIIC and spent nuclear fuel is stored in dry-cask storage containers just 600 yards from the Community. PINGP recently completed a re-licensing process to operate for an additional 20 years starting in 2013. The Tribe is concerned with radiological and other airborne pollutants, especially those impacting our food resources, such as culturally-important plants and animals, and the health of the community.

Since the early 1990s, PIIC has been monitoring for radiological components to assess the impacts of the PINGP. We work cooperatively with EPA National Air and Radiation Environmental Laboratory (NAREL) in Montgomery, Alabama to sample rainwater and air samples for radiological contamination. EPA provides the monitor and we obtain the samples, analyze them for alpha/beta, and then ship the samples to NAREL for gamma analysis. We also have a continuous gamma monitor that provides data on gamma radiation for PIIC.

IAQ is emerging to be a high-priority issue at PIIC. IAQ is identified as one of the top five human health risks by the EPA. Many of the homes and buildings on the Reservation have IAQ issues. Poor IAQ can cause or aggravate health problems such as asthma, respiratory illnesses and allergies. PIIC will soon apply for CWA 103 funds to increase our capacity to provide residents and places of service with the expertise required to manage and prevent IAQ problems and to address associated human health risk.



**EPA staff from NAREL  
working on our air monitor**





## **Red Cliff Band of Lake Superior Chippewa**

Melonee Montano – Environmental Director

Mike Balber – IAQ Project Manager

Program in Existence since – 2010

Program Projects – IAQ

Location – Bayfield, WI

The Red Cliff Tribes' IAQ Program, is a newly established program in its second year and falls under the Treaty Natural Resource Division, Environmental Department. The Program focuses on the completion of basic residential assessments to determine the need for insulation, ventilation and moisture control measures. Problem moisture areas are identified and the source documented. Areas lacking insulation and ventilation in each home are also documented. Homeowner and office management education is carried out in order to increase the community knowledge on basic measures that can be taken to control IAQ (moisture control, additional ventilation, piping insulation, etc.). When feasible, the information is then utilized to fix the problems with these systems in each home.

The benefits are twofold; better overall IAQ and better energy efficiency. Better IAQ should decrease the number of asthmatic episodes for asthma sufferers and increase well-being for all. Better energy efficiency will decrease the amount each household pays out in energy bills on a yearly basis.

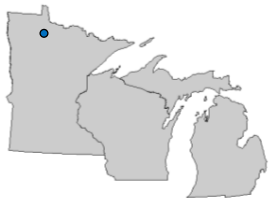
The Red Cliff Tribe recognizes that the incidence of asthma and allergies is increasing, especially among our children. Proper management of moisture, air flow and insulation results in a benefit to both health and cost for heating and cooling a home.

A good number of homes on the Reservation were built prior to 1980 and have serious moisture intrusion problems. The Red Cliff Health Center has many patients that are suffering from respiratory problems that are exacerbated by poor IAQ in their homes.

The Tribe is also interested in air quality as a natural resource and environmental health issue that has not yet been explored thoroughly. Therefore, the Tribe is in the process of applying for additional funds to complete an emissions inventory for the Reservation and surroundings as a first step in developing capacity in air quality. Ambient air quality has potential to affect the health of Tribal members in several ways, directly and through the consumption of fish, for example, therefore it is important that the Tribe have the capability to participate in regional issues affecting air quality.

Red Cliff Band of Lake Superior Chippewa web page

<http://redcliff-nsn.gov/>



## **Red Lake Band of Chippewa Indians**

Jennifer Godwin – Air Quality Specialist

Program in Existence since – 2007

Program Projects – MET, IAQ, Rn, EI, Community Outreach & Education

Location – Red Lake, MN

The Red Lake Reservation is a federally recognized closed Reservation encompassing over 846,000 acres of north-central Minnesota. The Reservation is the largest within EPA R5, comprising greater than 55% of the Federal Indian Trust land of EPA R5. Red Lake is home to about 65% of the Band's 11,000 members with the primary sources of livelihood including hunting, fishing, and subsistence natural resource harvesting. Preserving its abundance of natural resources is critical to Band Members' health, welfare, traditional ways of life and economic viability.

In order to understand and improve the Red Lake's air resource, the Red Lake Department of Natural Resources (RL DNR) began an Air Quality Program in December of 2007 with GAP funding and in the spring of 2009 secured CAA 103 funding. With the recent completion of its TAS application, the Program plans to transition to CAA 105 funding, beginning in FY 2013.

Some of the most notable achievements for the Program since it began include: submittal of TAS application to EPA R5 for CAA 105 and 505(a), completion of EI (2007), partnerships with EPA (School Air Toxics Monitoring) and MPCA (air toxics monitoring), smoke management collaboration with the Tribe's DNR Forestry Program, representation on TAMS Steering Committee, and Rn Program activities including hosting Measurement & Home Diagnostics and Hands-On Mitigation trainings (with the University of Minnesota, Midwest Universities Radon Consortium), working with Red Lake Housing Authority to test and mitigate homes, and increasing Rn awareness through outreach events.

Current priorities and projects include: updating the EI, completion of weather station installation, Smoke Management Plan development, continuing to test homes for Rn and mitigate when necessary, IAQ assessments for Band Members, host and/or participation in local community events. Air Quality issues we are most concerned with include mold in homes, smoke from prescribed burns and burning of trash at dump sites. Additionally, we are always looking for opportunities to work with other Tribes to gain and share knowledge and experience.



Red Lake DNR Website <http://www.redlakednr.org>



## **St. Croix Chippewa Indians of Wisconsin**

Sarah Slayton – Indoor Air Quality Specialist

Program in Existence since – 2004

Program Projects – IAQ

Location – Scattered throughout Burnett, Polk and Barron Counties, WI

St. Croix started its Air Program under CAA 103 grant funding in 2004. Through the years the Tribe has received intermittent funding to try to maintain an IAQ Program and in the years funding is not available, General Assistance Program funds have been used to try to maintain very basic services to the Tribe. With the EPA funding, St. Croix has been able to provide IAQ assessments and education to our Tribal Members for several years.

Recently our air Program staff has developed a close relationship with our St. Croix Tribal Housing Authority, which has allowed a combination of resources and expertise to ultimately advance the Program with rehabilitation recommendations being implemented by the Housing Authority. The majority of concerns that we receive calls on have to do with moisture issues resulting in mold concerns. As a result the main focus of the Air Quality Staff has been home science relating to home maintenance and construction. St. Croix has been able to utilize the resources of the Bois Forte Band of Chippewa Indians to greatly improve our air quality assessments. Several other areas are periodically called upon for testing including carbon monoxide, Rn, VOC's, ETS, sewer gases, asthma triggers, and pests.



Ambient air quality is an issue that has recently become a priority for St. Croix due to four major highways bisecting the Reservation along with burn barrels, unpaved roads and recent mining operations that are becoming closer and closer to the Reservation. Over the last year St. Croix's goal has been to protect and maintain pristine air quality for its Tribal Members by developing an Outdoor Air Program.

The CAA 103 funding as allowed programmatic growth by retaining qualified staff to serve as a resource for the St. Croix communities and to create a Program active in EPA R5 initiatives, such as participating in regional dialogue on conference calls, attending regional meetings, performing home assessments and working with the Tribal Housing department by being a resource during the planning process to rehabilitate and promote healthy homes.

Please visit the Departmental Website:

<http://www.stcciw.com/stcroixepa/staff.html>



## **Stockbridge-Munsee Community** **A Band of Mohican Indians**

Greg Bunker – Environmental Department Director  
Program in Existence since – No formal program  
Program Projects – IAQ assistance to Tribal members  
Location – Bowler, WI

Currently the Stockbridge-Munsee Tribe does not have a formal Air Program funded by the EPA or by Tribal sources. We are however very concerned about what is in our air, both indoors and out. Informally we watch and monitor outdoor wood-burners and burning barrels are outlawed. At this time we have not received complaints about either of those sources. A monitoring program that took place in the late 1980s did not find any exceedance of the newly instituted PM<sub>2.5</sub> particulate standards. Rn is a concern and measurements have been recorded in homes as much as fifteen times the action level recommended by the EPA.

The Environmental Department has assisted Tribal members with IAQ concerns for well over a decade. Investigations for mold, Rn and asbestos have been done with follow-up recommendations of how the buildings problems can be resolved. We have worked with Tribal Members in their private homes to plan remediation efforts for IAQ issues in order to prevent the negative health effects that may otherwise arise. We consider this to be a part of a good public health practice within the Reservation.



**Pictured is the department director, a Tribal maintenance worker and one of our fire department personal, working to remove asbestos from the basement of an old Tribal building. They are shown fully wetting the material, then double bagging it for disposal at the county landfill.**



## **Upper Sioux (Dakota) Community ~ Pezihutazizi Oyate**

Scott Wold – Environmental Department Director

Program in Existence since – No formal program

Program Projects – IAQ assistance to Tribal Members

Location – Granite Falls, MN

There is a definite need at the Upper Sioux Community (USC) for an Air Program to address both indoor and ambient air quality. Some of the known industrial sources of concern are:

- Northern States Power/Xcel Energy – Minnesota Valley Plant coal-fired power plant (online 1953-2004, coal fly-ash and bottom-ash ponds removed 2010)
- Granite Falls Energy, LLC – Ethanol plant
- Martin Marietta Aggregates, Yellow Medicine Quarry – rock mining and crushing

Each of these sources is within 4 miles of USC and located in or around Granite Falls, MN.

Also, Big Stone coal-fired Power Plant (online since 1975) is located about 70 miles away on the headwaters of the Minnesota River near Milbank, SD.

Our northern border is the Minnesota River which has been a traditional food source, but is no longer relied upon for subsistence due to Hg and PCB contamination of fish.

In the past, air modeling used by industry tended to be one of flat landscape, while we are in a unique landscape, situated on the convergence of prairie with the Minnesota River Valley, (the glacial-era valley that the Minnesota River flows in is up to five miles wide and 250 feet deep) which drastically affects wind/weather patterns.



Our Community is surrounded by small-scale farming and industrial agriculture (including anhydrous ammonia for making and using fertilizer, fugitive dust, aerial and ground pesticide applications, concentrated animal feeding operations, etc.) In recent years, we have had heavy winds creating 'dust storms' turning the sky dark gray with suspended topsoil sediments.

We also have current concerns with IAQ for Rn, mold, ETS, etc. Some rural homeowners still use open burn barrels/pits.

We have Community Members of all ages with asthma, allergies and other respiratory disorders. There has been an increase in the prevalence of these illnesses within our younger generations, within the past several decades.



### **White Earth Band of Ojibwe (Gaa-waababiganikaag)**

Monica Hedstrom – Environmental Affairs Manager

Program in Existence since – No formal program

Program Projects – Rn, Community Outreach & Education

Location – Mahnomen, MN

The White Earth Band of Ojibwe (Gaa-waababiganikaag), a sovereign nation, is entrusted to protect the land base, the natural resources, treaty rights, and the culture and identity of our Members. The White Earth Reservation (located in Northwestern Minnesota) was established in 1867 by a treaty with the United States Government and the Mississippi Band of Ojibwe. Status as a Tribal Government provides the White Earth Reservation with broad powers, ensuring various immunities for the Tribe and its individual Members. The boundaries include 36 townships which encompass all of Mahnomen County and portions of Becker and Clearwater Counties. The area includes five incorporated cities and five major villages.

The Natural Resource Department was established to protect, manage and enhance the resources of the Reservation and is responsible for daily management and monitoring of Tribal resources. Air Quality is of great importance to the White Earth Band. IAQ, burn barrels, unpaved roads and wood smoke contribute to some of the concerns in White Earth. While a formal Air Quality Program hasn't been established, we have begun the process of building the foundation for the future.

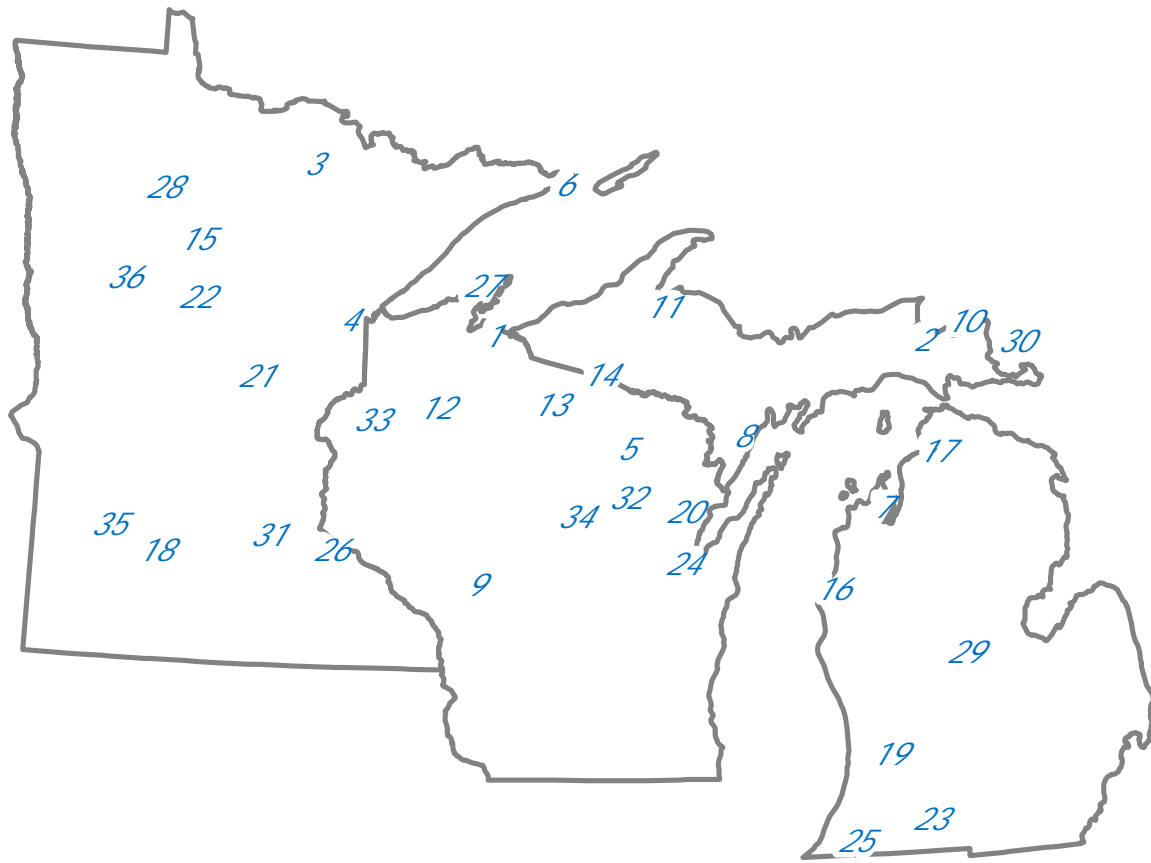
#### Projects:

White Earth Environmental Program Projects include the development of an Air Quality Ordinance (EPA-GAP); Rn testing in privately owned homes (EPA-GAP); outreach to Band Members regarding air quality and how it affects health.

The White Earth Reservation Housing Authority projects include Rn testing and yearly inspections for IAQ concerns.



# US EPA Region 5 Tribes



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**Bad River Band of Lake Superior  
Chippewa**

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**Bois Forte Band of Chippewa**

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**Fond du Lac Band of Lake  
Superior Chippewa**

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Community**

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**Grand Portage Band of Lake  
Superior Chippewa**

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**Grand Traverse Band of Ottawa  
& Chippewa**

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