

# Tribal Air Resources Journal

*Accomplishments, Obstacles, Successes and Setback of  
EPA Region 5 Tribes – Air Quality  
2015 Edition Volume VII*

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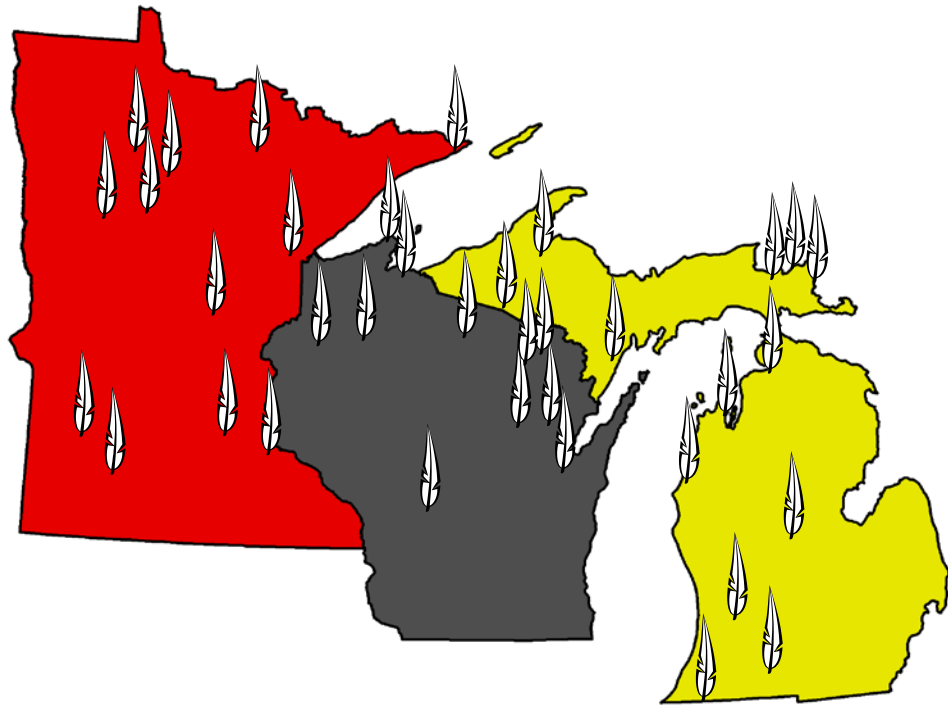
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**All 35 R5 Tribes are  
represented in this  
year's Journal**



*Tribal Air Resources Journal* was started by Tribes in EPA Region 5 to better publicize Tribal Air Quality Program achievements, progression and struggles to their Tribal communities as well as in Indian Country. Environmental staff at these Tribes perform many tasks that are often carried out 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 they deem necessary. However, this also presents distinctive problems for staff to overcome. Each Tribe is a sovereign nation that 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, in our seventh year of publication, that this Journal will communicate the goals, achievements and issues in Indian Country 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.*

## Preface

*This year is special. This year is the first year that the Region 5 Tribal Air Resources Journal has all 35 Tribes represented, plus two consortia. The Journal has made great strides since 2008 when it was first brought forward as a concept to become what it has today. Tribes needed something to promote their accomplishments and successes, and share obstacles and setbacks encountered along the way not only to EPA, but across Indian Country, federal/state agencies and other areas of opportunity. It is the goal of the Journal to create awareness that: Tribes have viable Air/Environmental Programs, Tribes are leading cutting edge studies and Tribes are great partners. Over the years the Journal has expanded from journal entries to include location maps, contact listings and a Ceded Territory map.*

*We, the Tribes of Region 5, thank you in taking the time to read this Journal and share the knowledge you have gained with others. With great pleasure we present you with the 2015 Region 5 Tribal Air Resources Journal.*

*-Region 5 Tribes*

## 2015 Summary of Facts for EPA R5 Tribes

### Clean Air Act Implementation

- 5 Tribes in R5 currently have Treatment as a State (TAS) status. Additionally, 3 Tribes are pending for 2015. One of these Tribes is in process of expanding their TAS with supplemental authorities. Of the 5, all TAS Tribes have CAA 105 reduced match and CAA 505a(2) for Title V notification. One Tribe has CAA 126 Authority.
- 1 Tribe has Class 1 re-designation. 2 Tribes are in the final stages of Class 1 re-designation. One Tribe has plans to initiate Class 1 re-designation in 2016. Multiple Tribes are considering Class 1 in their long range plans.
- 3 Tribes in R5 are researching the feasibility of Tribal Implementation Plans.
- SIP Rule change for Wisconsin to comply with Forest County Potawatomi Class 1 Redesignation has been amended into the State SIP Rule for FCP Class 1 Area administration.

### EPA Funding

- **Clean Air Act** – 17 Tribes requested \$2,030,026 for air quality project/program support from EPA. 16 Tribes were partially funded with R5 FY16 State and Tribal Assistance Grant (STAG) funds totaling \$1,216,261. 11 Tribes received CAA 103 grant funding and 5 Tribes received CAA 105 grant funding. 3 of the 5 105 grantees have incorporated their Air Grants into a PPG grant for FY15. R5 has implemented a 2 year workplan with a staggered funding structure for established air programs.
- **Tribal Radon SIRG Grants** – 3 Tribes were operating under Tribal radon grants in FY14. In FY15 EPA anticipates 3 grants of \$45,000 each to be available. Tribes are matching grants at 25% or 40% depending on the requirements of the Indoor Radon Abatement Act. Multiple other Tribes are utilizing their GAP, Tribal or other funding source to implement radon outreach, testing and mitigation projects.
- **Community Scale Air Toxics Study** – EPA Grant partnership with a Tribe, Minnesota Pollution Control Agency, Minnesota Department of Health.
- **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.
- **Small Sensor Study** – EPA OAQPS special project with a Tribe to assess the feasibility and usability of small sensors and their data.

### Other Funding

- **Tribal Environmental Health Grants** – Cooperative Indian Health Service agreements to promote Reservation sustainability on 7 Reservations with benefits of air emission reductions.
- **Bush Foundation Grant** – Three Tribes in R5 working together to promote revitalization to traditional anishinaabeg connections to food. Practices have secondary air quality reductions.
- **American Lung Association** – Two Tribes working on IAQ projects with elders with COPD and children with asthma. Funding allowed for assessment and mitigation of the IAQ issues.
- **Supplemental Environmental Projects Funding** – Tribe in process to install a 1 megawatt photovoltaic solar array.
- **HUD Funding** – Three Tribes received funding to address mold concerns.

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

### *National/Regional Committees:*

- Clean Air Act Advisory Committee (CAAAC) – EPA R5 Tribal Representative holds a voting seat and is a member of the Permits, NSR and Toxics Workgroup and the Port Emissions Workgroup
- Tribal Air Monitoring Support Center (TAMS) – EPA R5 has a steering committee representative
- National Tribal Air Association (NTAA) – Tribal Rep, serves as Vice Chair of the Executive Comm.
- Conference of Radiation Control Program Directors (CRCPD) E-25 Committee Tribal Advisor
- National Tribal Science Council – EPA R5 Representative
- National Tribal Operations Committee (NTOC) –R5 Tribal Representatives
- Regional Tribal Operations Committee (RTOC) – Made up of R5 Tribes
- Air and Waste Management Association –Indigenous Environmental Affairs Technical Coordination Committee
- Air and Waste Management Association –Industrial, Governmental, and Public Sectors Group
- Minnesota Clean Air – Tribal participation on 3 workgroups
- LADCO- Technical Committee involvement

### *Workgroups:*

- EPA R5 Tribal and EPA Mining workgroup
- Great Lakes Caucus of the Western Mining Action Network
- NTAA National Indoor Air Quality workgroup
- EPA R5 Tribal Indoor Air Quality workgroup
- National Tribal Air Association and EPA monthly policy/update conference calls
- Taconite Federal Implementation Plan calls/review

### *Regional and National Meetings:*

- Annual EPA R5 Tribal Air Meeting – held in conjunction with R5 Tribal Environmental Program Management Conference
- EPA R5 Tribal monthly air media conference calls
- Monthly NTAA/EPA/Tribal policy 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)
- Great Lakes Region – Native American Fish and Wildlife Society
- National Tribal Forum on Air Quality – R5 Tribes attend, on planning committee, and present – 2015 Forum hosted by the Nottawaseppi Huron Band of the Potawatomi

***Please refer to the R5 Tribal Areas of Interest document to contact individual Tribes for input on TV and mNSR permits or other potential information sharing. The document can be found at EPA R5 or contact Brandy Toft, [air@ldrm.org](mailto:air@ldrm.org) 218.335.7429 for a copy.***

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## Acronyms

CAA	Clean Air Act
CAA 103	Clean Air Act Section 103 Funding
CAA 105	Clean Air Act Section 105 Funding
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
EI	Emissions Inventory
EPA R5 (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 Station/Tower
MPCA	Minnesota Pollution Control Agency
NAAQS	National Ambient Air Quality Standard
NADP	National Atmospheric Deposition Program
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
SIRG	State and Tribal Indoor Radon Grants
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***

Nathan Kilger, Air Quality Specialist  
 Daniel Wiggins Jr, Air Quality Technician  
 Program in Existence since – 2001  
 Program Projects – PM<sub>2.5</sub>, O<sub>3</sub>, Hg, Met, Rn, IAQ  
 Location – Odanah, Wisconsin

The Bad River Band started an Air Program under §103 of the Clean Air Act in 2001. The Band continues to be most concerned with the protection of human health and the sustainability of the natural environment found along the southern shore of Lake Superior.

The 16,000 acres of Kakagon and Bad River Sloughs, most recently designated a wetland of international significance by the Ramsar Convention, are a vital part of the Band's culture and subsistence. The water and air quality of the entire Bad River watershed is priority, both now and seven generations into the future.

Current PM<sub>2.5</sub> and O<sub>3</sub> levels remain below the established NAAQS and it is the goal of the Bad River Band to protect and maintain pristine air quality. The first step towards toward this goal was achieved in 2005 when the Bad River Band received Treatment as a State (TAS) for air quality. The Bad River Band is currently working towards redesignating the Reservation from Class II to Class I as the next step in protecting not only the plant and wildlife communities that sustain the Band's cultural heritage, but also the health of the Tribal Members that call this land their home.

Ambient air monitoring has included both short and long-term projects, many made possible with support from partners: Wisconsin DNR, USGS and Northland College. Several recent and on-going projects have focused on atmospheric mercury.

There are also a multitude of indoor environmental issues due to improperly built structures, lack of maintenance and an environment that contributes to moisture and mold issues. There are nearly 500 tribal homes located within the Bad River Reservation, including 171 housing units under the oversight of the Bad River Housing Authority. The Bad River Tribe receives State Indoor Radon Grant (SIRG) funding, which is valuable in continuing to monitor Tribal homes for high levels of indoor radon and providing services to help reduce radon levels when found above the USEPA's action level. The Air Office continues to work with the Bad River Housing Authority, Health & Wellness Center, and other Tribal Departments to address IAQ issues within Tribal housing and buildings.

Find more information on Bad River's Class I and Air Quality Program at: <http://x.co/BRair>



*Bad River Band's Ambient Air Monitoring Site,  
 Odanah, Bad River Reservation*





### **Bay Mills Indian Community**

Dwight Sargent, GAP Coordinator  
Program in Existence since –  
Program Projects – Sec 109, 319, IAQ  
Location – Brimley, MI

The Bay Mills Indian Community is located in the northeastern Upper Peninsula of Michigan approximately 15 miles west-southwest of Sault Sainte Marie, MI. This area is within the North Lakes and Forests Eco-Region as defined by the EPA.

The people of the Bay Mills Indian Community have for generations relied heavily on their natural resources as a source of food and commerce. With this, there is a strong commitment to protect and enhance these resources. Currently the Tribe is running a very successful Clean Water Act Section 106 and 319 in an effort to increase the health of the aquatic communities as well as assisting with Indoor Air Quality efforts on the Reservation.

Visit the Bay Mills Indian Community Website [www.baymills.org](http://www.baymills.org)





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

Vacant – Environmental Health Specialist

Program in Existence since – 2002

Program Projects – IAQ, Asthma Awareness, R5 IAQ assistance

Location – Nett Lake and Vermillion (Tower), MN

The Bois Forte Environmental Services Department IAQ Program is no longer running due to lack of funding and staff shortage. Bois Forte is looking to hire a new Environmental Health Specialist in the spring of 2016 with a different revenue funding. Even though Bois Forte no longer manages an IAQ program there is still a need. Asthma is a huge issue within homes at Bois Forte and we would like to be able to reach out and help those individuals struggling within the Community.

In the past our IAQ program worked closely with the Bois Forte Housing Department, which manages approximately 150 homes. We also responded to IAQ requests from private homeowners, of which there are about 150 within the Bois Forte Reservation.

Within EPA R5, our Department offered technical assistance to other Tribes by providing site visits for IAQ investigations and recommendations. Both locally and within the region, our goal as a Department was to assist with assessments and provide recommendations to remedy indoor issues. This can be anything from moisture & mold issues to CO, HVAC and ventilation/filtration problems along with dust and fine particles and pest concerns which also trigger asthma issues.

Although there was no longer an official IAQ Program the Environmental Manager at Bois Forte still receives calls from local Community Members requesting help with indoor air issues. Bois Forte continues to provide educational materials to provide awareness and help with indoor air issues to local Community Members and Programs. We anticipate securing funding through Environmental Services or assist another program in the future to increase and enhance services to the community.





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

Joy Wiecks – Air Coordinator

Phil Defoe – Air Quality Technician

Program in Existence Since - 1999

Program Projects –Class 1, O<sub>3</sub>, Hg: wet & leaf litter, PM<sub>2.5</sub>, Permit & Regulation Review

Location – Cloquet, MN

The Fond du Lac Band was the first Tribe in EPA R5 to have a dedicated Air Program and the first to be granted Tribal Authority to administer part of the Clean Air Act in 2004. The Program provides the Band with expertise on environmental issues related to air quality and climate change. In order to protect Fond du Lac resources, the Program reviews draft permits and regulatory actions, and provides education and outreach to Band Members. The Band has been able to develop its Program, assert its sovereignty, and achieve an excellent working relationship with the 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 intend to ensure both local and federal clean air objectives are met. Staff also review draft regulations as proposed by both the EPA and the Minnesota Pollution Control Agency and provide comments. Our Air Coordinator continues to serve on the Clean Air Act Advisory Committee as a voting member. In order to assess the effects of air pollution on the Reservation, the Air Program operates an ozone monitor, a fine particulate monitor, and a mercury wet deposition monitor. The Program has also collected data on leaf litter mercury dry deposition for three field seasons, with two additional seasons planned. We hope that this data can help the scientific community study and predict the fate of mercury emissions in the environment.

The Band recently announced its intention to pursue Class I redesignation of the Reservation. After approval by the EPA, this means that the Reservation's air quality would be protected to the same degree as our National Parks, Forests, and Wilderness Areas. The Band sees this as an important step in keeping our Reservation's air quality clean and in protecting other resources, such as Reservation water quality and local flora and fauna.

The Band is working to identify ways to improve energy efficiency in Reservation-owned buildings through benchmarking and is working with Minnesota Power to install a 1 megawatt photovoltaic solar installation that will provide clean power to the Band's Black Bear Casino Resort. The Band has also instituted a no-idling policy for Reservation school buses which will help protect the health of our schoolchildren.

The Band has also been active in addressing indoor air quality. In the past, we have run lead abatement and radon assessment projects on the Reservation. After a major flooding event in June of 2012, Environmental staff were instrumental in helping with housing clean-up and mold prevention. Staff also distributes carbon monoxide sensors as needed.





### **Forest County Potawatomi Community**

Natalene Cummings – Air Resources Program Manager

Joe Cebe – Air Monitoring Spec.    Tansey Smith – Sustainability Coord.

Program in Existence since – 2002

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

Location – Crandon, Forest County, Northeastern Wisconsin

The FCPC ambient air monitoring program instituted in 2002 provides important information that establishes baseline air quality, air pollution trends, and supports the management of the Class I airshed and protection of Air Quality Related Values (AQRVs) through the establishment of impact thresholds. The extensive monitoring program includes analyzers for O<sub>3</sub>, SO<sub>2</sub>, NO<sub>x</sub>, vaporous Hg, PM<sub>2.5</sub>, and collectors for acid and Hg deposition. FCPC's Air Quality Specialist sits on the Tribal Air Monitoring Services (TAMS) Steering Committee as a representative for EPA R5 Tribes.

In 2008, the FCPC Reservation was redesignated as a Class I area and in 2010 the FCPC obtained TAS. Having Class I and TAS authorities enables FCPC to participate in the air pollution permitting process and to comment on permits. These delegations come with a lot of responsibility and a need for Tribal air staff to be knowledgeable and capable of reviewing the complexities of an air pollution permit application.

In May of 2015, FCPC and the State of Wisconsin, in accordance with the 1999 Class I Agreement, established air pollutant thresholds for the Tribe's AQRVs - vegetation, water quality and visibility. These thresholds are used to compare impact analyses, to determine if the proposed emissions from a new or modified facility may have an impact on the AQRVs. This process brought to close, a 21 year endeavor that began with a General Council resolution in 1994 to seek Class I redesignation.

FCPC began a strong push towards achieving energy independence and carbon neutrality in 2007, followed by the formation of an in-house Energy Work Group. FCPC conducted several energy audits at its government and enterprise facilities that resulted in retrofits and upgrades to lighting and HVAC systems. Additionally, the government switched to a four day work week to reduce CO<sub>2</sub> emissions from employee vehicles by an estimated 170 tons per year. A 2.0 mW anaerobic biodigester was built with DOE grant funds on FCPC property located in Milwaukee to offset energy use at its Potawatomi Bingo Casino and more recently, a number of solar panels have been installed at Tribal facilities to offset coal-fired power. FCPC's new Sustainability Coordinator is currently working towards developing an Energy Strategic Plan and a Climate Change Adaptation Plan to guide FCPC's continued efforts towards being carbon neutral and reducing climate change impacts.



*Solar panels at air monitoring site*



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

Vallen Cook – Air Quality Specialist

Program in Existence since – 2003

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

Location – Grand Portage, MN

The Grand Portage Band of Chippewa Reservation is located in the most northeast point of Minnesota. We are concerned with the health and wellbeing of our people. During June of 2015 we presented at our local health fare regarding indoor air quality, ambient air monitoring, and the effects of both on respiratory diseases such as asthma. We talked about the hazecam and our PM<sub>2.5</sub> Beta Attenuation Monitor (BAM) explaining the importance of what they measure for our health and the environment we live in. Our Environmental Department has been able to teach what we do in our jobs to students in grades ranging from kindergarten to fifth grade. The lessons that we teach for air quality have been about asthma, different types of pollution, haze and the tools we use.

In 2012 we applied for Treatment as a State (TAS), the process was held up due to staff changes. In spring of 2015 we resubmitted our TAS application and currently responding to comments. The goal is to attain TAS status by the end of 2015.

Our BAM is not working properly due to its age (the oldest in Minnesota), and this is showing in its data collection as it spikes. The Minnesota Pollution Control Agency (MCPA) is no longer accepting our data as valid as it did not pass quality controls for the Air Quality Index (AQI) due to the random spikes.

In June we began planning an IAQ study that would measure the amount of cigarettes smoked in our casino as well as Ultra Fine Particulate levels. Currently our casino is currently undergoing construction that is expected to take up to two years. This study is a revamped version previously done five years ago. The plan is to conduct a similar study in five years once the construction is done. Since the start of the study in October, we are quite surprised that the amount of cigarettes smoked in our casino is significantly higher than we originally thought. The study will impact the size of the non-smoking section in our casino, which will be presented in February 2016.



*Grand Portage Bay at moonrise*





## Grand Traverse Band of Ottawa & Chippewa Indians

Kris Ptak – Environmental Services Coordinator

Program in Existence from - 2002 to 2010

Program Projects – O<sub>3</sub>, IAQ Inspections, Hg, Emission Inventories, Diesel Retrofit, NADP Monitoring, Rn, Burn Barrels, & Educational Outreach

Location – Peshawbeston, Michigan

The Grand Traverse Band of Ottawa & Chippewa Indians (GTB) is located in northern lower Michigan, in Peshawbeston, Michigan. GTB's Natural Resource Department (NRD) Environmental Program was established on October 1, 1997 through grant funding from EPA and has grown to include programs for solid waste management, pollution prevention, watershed planning, great lakes management planning, environmental health, groundwater and surface water quality protection, seventh generation initiative program, wetland protection, nonpoint source pollution, soil erosion permitting, CERCLA Section 128A (Brownfields, Phase 1 contamination surveys, environmental response), and green team. GTB's Environmental Program's goal is to restore and protect the natural systems upon which life depends including the integral relationship between these natural systems and the health and welfare of GTB members in the six-county service area, and arguably the 1836 Ceded Territory. This mission is consistent with the GTB Constitution, which states, in part, that the Constitution was adopted "to conserve and develop our natural resources."

In 2002, GTB established an Air Quality Program under the CAA 103 grant funding. The Air Quality Program began with NADP Monitoring and during the eight years of existence added ozone monitoring, radon testing, indoor air quality inspections of Tribal residences and governmental offices, mercury deposition monitoring, emissions inventories, diesel retrofit training, creation of a burn ban ordinance, and educational outreach to the Tribal Membership and the local public. The GTB Air Quality Program partnered with the Michigan Department of Environmental Quality, NADP staff, Inter-Tribal Council of Michigan, and the EPA. In 2009, GTB was working to secure Treatment as a State (TAS) and CAA 105 funding. In 2011, GTB decided to discontinue its Air Quality Program based upon the fact that the partial funding available under the CAA 103 was insufficient to fully staff and administer an Air Quality Program. GTB understands the importance of clean air and its integral role in preserving and protecting our natural resources. Future endeavors may include: TAS, CAA 105 funding, and climate change.

In 2015, air quality was re-affirmed as a Tribal priority in 2015-2019 GTB Tribal Environmental Agreement. GTB will research work to find the funding needed to support its air quality needs.

For further information, please visit our websites:  
<http://www.gtbindians.org/default.asp>  
<http://www.gtbindians.org/naturalresources.asp>  
<http://www.gtbindians.org/environmental.asp>



*GTB NRD Mission: To protect and enhance the natural resources and environment entrusted to us by the Creator & guaranteed by treaty rights, for managed & respected utilization by the Anishinabek people for past, present, and future generations.*



### *Hannahville Indian Community*

L. Scott Wieting – Environmental Specialist

Program in Existence since – 1993

Program Projects – Radon Testing, Indoor Air Quality Education

Location – Wilson, Michigan

The Hannahville Indian Community (Community) began its Indoor Air Quality Program in 1993, through the Inter-Tribal Council of Michigan/EPA Environmental Multi-Media Program which provided environmental services to 5 federally recognized Tribes within Michigan. These activities included radon testing of several Reservation homes, along with the development of information fliers which include environmental tobacco smoke, indoor wood burning, and radon. In 1997, the Community received its own EPA General Assistance Program (GAP) grant which included the continuation of indoor air quality efforts within the Hannahville Reservation.

The primary focus within the air portion of the GAP Program is radon testing in governmental buildings and Tribal residences. The Hannahville Reservation, which is mostly located in Menominee County, Michigan, is in an area of moderate potential for radon levels above 4.0 pCi/L (EPA's Map of Radon Zones – Michigan).

The Hannahville Environmental Department began testing governmental facilities in 1998. These facilities include Tribal Administration, Nah Tah Wahsh Public School Academy, Visions Center and the Tribal Health Center. The following year, voluntary radon testing was made available to Tribal residences. The Hannahville Environmental Department has continued to offer Radon testing through the GAP Program in most years since.

The Community coordinates some of its Radon Program activities with the State of Michigan, which provides Radon test kits to the Community. The State also provides education and outreach materials associated with Radon awareness and the promotion of testing homes.

The Community is committed to investigating and remediating indoor air quality issues in order to protect human health. Our Program efforts continue to provide information to Tribal Managers and residents on air quality risks so that they can make informed decisions on how to improve or maintain healthy indoor air quality.





### **Ho-Chunk Nation**

Matt Malimanek, Air Quality Specialist

Program in Existence since – 2006

Program Projects – Ambient Air Monitoring, Rn, Asthma, & IAQ

Location – Black River Falls, WI

The Ho-Chunk Nation (Nation) is currently expanding its Air Quality Program by adding ambient air monitoring to its already existing indoor air quality components. Public concerns over possible health impacts attributed to the exponential growth of frac sand mining activity near Ho-Chunk lands are the motivation for the establishment of the Nation's ambient air monitoring capabilities. The Nation has numerous Tribal Members that now live within a mile or less of large frac sand mines. After receiving Section 103 Clean Air Act funding in 2015, the Ho-Chunk Nation initiated a plan to develop ambient air monitoring sites on Tribally-owned lands. Since very little research has been conducted on the health impacts of nearby frac sand mining Operations, due to the youth of the industry, these monitoring sites will be focused on determining the effects that the mining is having on air quality.



**Photo: Dust escapes from a storage pile of Frac Sand. The type of sand being mined for use in hydro-fracking oil pumping operations is made up of silica. The inhaling of silica sand is known to cause an incurable and sometimes fatal lung disease called silicosis.**

The Ho-Chunk Nation Indoor Air Program began in 2006 with a focus on asthma and expanded to include radon and other indoor air contaminants. The Nation added radon testing in 2009 when a testing project was implemented in the Wittenberg area. The Nation identified numerous homes with excessive levels of Radon. Funding was received and the Nation mitigated every home above the action level. The Nation currently provides radon testing services upon request and performs educational activities during Health Fairs and at General Council. The Nation also continues to provide services for the Asthma Program by performing site visits surveying homes for asthma triggers such as mold, environmental tobacco smoke, and dust mites. Homeowners are provided with recommendations to correct the issues identified and in some cases with supplies to address specific issues. These two activities comprise the majority of the Nation's Indoor Air Program activities.





### ***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>, haze, ozone and meteorological data. These efforts are in coordination with the Michigan Department of Environmental Quality's monitoring network. As part of the work with the MDEQ, ITCMI is now uploading data to the MiAir Website.

The ITCMI staff is also working with the Saginaw Chippewa Indian Tribe and the Lac Vieux Desert Band of Lake Superior Chippewa Indians on emission inventories, ambient air monitoring and Indoor Air Quality projects.

The ITCMI air monitoring project is funded through a CAA Section 103 grant. 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

[www.itcmi.org](http://www.itcmi.org)

MiAir Website

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



### *Keweenaw Bay Indian Community*

Stephanie Kozich– Air Quality Specialist  
Katherine Kruse – Environmental Specialist  
Program in Existence since – 2012  
Program Projects – IAQ, Education and Outreach  
Location – L’Anse/Baraga, MI

The Keweenaw Bay Indian Community (KBIC) is located in the Western Upper Peninsula of Michigan in a rural and pristine area. The Reservation encompasses over 55,000 acres, 17 miles of Lake Superior shoreline, 80 miles of streams and rivers, 15,000 acres of lakes, and 3,000 acres of wetlands. It borders the Village of L’Anse and encompasses the Village of Baraga.

KBIC is currently working under its fourth year of Tribal Air Program funding. At the end of this grant cycle, we will have the capacity to provide Indoor Air Quality Assessments to homes requesting our assistance. There have been a high number of individuals living within the L’Anse Reservation reporting mold issues within their homes. With the ability to offer Indoor Air Quality Assessments, it is our goal to assist in remediating this problem.

KBIC is always looking for ways to partner and collaborate with other organizations. This fall, the American Lung Association (ALA) visited KBIC and conducted an Indoor Air Quality and Asthma training for Environmental, Housing and Medical staff. The training was well received and the information provided by the ALA brought to the attention the dangers that lie within our homes that contribute to poor air quality. With this increased awareness, we are determined to help our community by outreach and education using the information we received.

KBIC will continue building our capacity to provide a Tribal Air Program for our community. We will also continue providing education on areas of concern in our community. Some of these are: burn barrels, wood stoves, elevated radon levels, and mold. In order to address these concerns, education through outreach will continue at community events.

Please visit KBIC Air Quality Program website at <http://nrd.kbic-nsn.gov/air-quality>





### *Lac Courte Oreilles Band of Lake Superior Chippewa*

Brett McConnell – Environmental Specialist

Program in Existence since – 2000-2005

Program Projects – Radon Monitoring/Mitigation, NADP Network, Mold Location – Northwest Wisconsin

In the past, the Lac Courte Oreilles (LCO) Tribe was involved in the National Atmospheric Deposition Program (NADP) under the CAA Section 103 Program. EPA funding for LCO was terminated in March of 2005. The LCO Tribe applied for funding to continue their NADP site and to become part of the Mercury Deposition Network (MDN), but did not receive EPA funding to continue.

The Lac Courte Oreilles Tribe exercises their treaty rights each year by spearing and netting fish in the upper-third of WI and parts of Eastern Minnesota. This subsistence way of life is deeply rooted in the LCO culture. All of the lakes in this region, to a degree, have fish consumption advisories due to elevated mercury levels in fish tissue. It is a priority for the LCO people to understand why the fish they are eating are becoming contaminated, and to gather data that may help in the future to control mercury emissions. The LCO Conservation Department feels that the NADP and MDN Networks provide a solid framework in collecting quality assured data to help monitor, and ultimately control mercury, sulfate and nitrate emissions in the future.

In September of 2015 the LCO Tribe received a HUD Indian Community Development Block Grant to address housing units plagued by mold issues.

The funding will help assist the LCO Housing Authority in the remediation and preventative construction work on approximately 53 housing units. There are many more Tribal homes with indoor air quality issues, but for now, the Tribe is focusing on the most severe cases.

Funding will be used for construction materials and techniques known to resist mold. The Tribe will also help educate Tribal Members on practices that help identify mold, and mold preventative measures.



*Block Grant Award*

*Photo provided by LCO Newsletter*



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

Vacant – Energy/Air Quality Program Coordinator

Program in Existence since – 2008

Program Projects – Energy Upgrades, Capacity Building, IAQ, Education and Outreach

Location – Lac du Flambeau, WI

The Lac du Flambeau Tribe is dedicated to clean land, water, and air as these are vital to sustaining the diverse wildlife and fisheries resources of the Tribe, and vital to the health of Tribal Community Members.

The Tribe's Energy/Air Quality Program was established in 2008 and operates under the guidance of the Tribe's IRMP and Strategic Energy Plan. The Tribe has established important goals within these plans to protect the Tribe's air quality and to address the energy situation of the Tribe with sustainability. The Program has conducted various projects since implementation began including energy efficiency and HVAC upgrades in Tribal facilities, renewable energy system deployment, a Reservation PM<sub>2.5</sub> concentration study, indoor air quality assessments, mold remediation, as well as educational programs and events.

The Lac du Flambeau Indian Reservation's air quality is relatively clean and has not been subjected to significant industrial pollution sources locally. This provides for a healthy environment for community members and the natural resources of the Tribe. In recent years, the Lac du Flambeau Air Quality Program has worked to maintain this clean air for the Tribe against potential harmful threats to this resource from off of the Reservation.

The Tribe will continue to value protection of its natural resources highly, with the Air Quality Program being a key component to this commitment.

For more information, please visit [www.ldftribe.com/naturalresources](http://www.ldftribe.com/naturalresources)





### ***Lac Vieux Desert Band of Lake Superior Chippewa***

Vacant – Environmental Services/Planning Director

Program in Existence – No official program

Program Projects – TEOM and PM<sub>10</sub>

Location – LVD Reservation, Watersmett, Michigan

Lac Vieux Desert (LVD) was able to secure funding for a TEOM 1400a with the purpose of determining whether or not to consider seeking air program support based on particulates. In the last couple years LVD was able to borrow a PM<sub>10</sub> monitor to further determine if there may be an issue that would lead LVD to seek support for an Air Program. To date, the information learned has not led to a definitive approach to conducting further air characteristics data.





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

Brandy Toft – Air Quality Specialist

Ben Benoit – Air Quality Technician

Program in Existence since – 2001

Program Projects – Hg (wet & leaf), IAQ, Met, PM<sub>2.5</sub>, Rn, Diesel, Toxics, Solar, Permits/Rules, Mining, Green Initiatives, Forecasting, etc

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

The Leech Lake Band of Ojibwe (LLBO) continues to build program capacity, develop and enhance its Air Quality Program (LLAP) to protect human health and trust resources. Progress is made by monitoring, implementing voluntary programs, IAQ assessments and education, commenting on air rules/permits/policy, while providing education/outreach to the community.

The LLAP continues to manage an air monitoring site where we collect background data for PM<sub>2.5</sub>, Hg (wet deposition and leaf litter), and Meteorology but has added to the site in 2015 by launching a small sensor study in partnership with Sonoma Technology and EPA. We are collecting data from the FRM PM<sub>2.5</sub> monitors and various small PM sensors for a comparison study due spring of 2016. This project helps strengthen partnerships and hopefully will give some insight on the usefulness and viability of small air sensors in Indian Country.

Another large focus of the LLAP in 2015 was working with the American Lung Association (ALA), Leech Lake Housing Authority and Community Services on two projects concerning IAQ. In the first partnership, LLAP identified and assessed Elders suffering from COPD utilizing the ALA provided funds to remediate their living space for healthier air quality based on LLAP recommendations. This project has remediated 15 elders' home, as of publication, with several more to come. The second project focuses on homes of children with asthma and is structured similarly with the ALA provided resources for remediation based on LLAP recommendations following an IAQ assessment. In this project 25 homes will be assessed.

Other work in 2015 has been to protect and maintain LLBO's air quality as Leech Lake is surrounded by 24 Title V facilities of varying industries. Facilities include: coal fired EGUs, wood/paper, waste incinerators, natural gas compressor stations, and an additional six mining facilities clustered within or near our Ceded Territories. The LLR has approximately 68 minor sources that exist within the Reservation boundaries. With the review of environmental impact statements, Title V and minor permits on or near the Reservation it is important to understand the complexities of our airsheds and impacts. LLBO received TAS for air in October 2007. LLAP is engaged on local, regional, and national venues (ie NTAA Vice Chair) and shares that information in the form of data, education, and outreach to and for Indian Country.

Currently, the LLAP is funded by: EPA R5 105 Air grant, R5 SIRG Tribal Rn grant, and an Indian Health Service grant for Reservation resilience. The LLAP looks forward to potential delegation of the MNSR, building and expanding capacity to better serve LLBO, and working with partners to leverage resources.

Sign up for LLAP's Air Quality Forecasting Enviroflash at <http://www.enviroflash.info/signup.cfm>  
Visit our website at [www.ildrm.org](http://www.ildrm.org)



**Leech  
Lake  
Billboards**





### *Little River Band of Ottawa Indians*

Thomas Shepard – Air Quality Specialist  
 Program in Existence since – 2005  
 Program Projects – O<sub>3</sub>, PM<sub>2.5</sub>, MET  
 Location – Manistee, MI

Little River Band of Ottawa Indians (LRBOI) began its Air Quality Program in September of 2005 utilizing CAA 103 grant funding. The Tribe was concerned that Ozone transport up the Lake Michigan shoreline was adversely affecting air quality in Manistee County, Michigan. Since 2005, the transport issue has been documented and acknowledged by the State of Michigan and the EPA. LRBOI continues to monitor ozone to gather additional information and to support trend analysis.

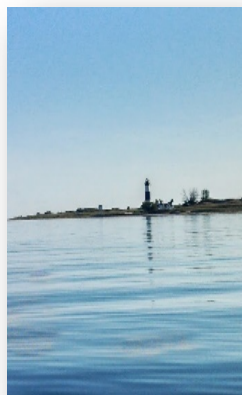
LRBOI also operates a PM<sub>2.5</sub> monitoring station. LRBOI has an agreement with the State of Michigan for air monitoring assistance. They provide laboratory and quality control services. This collaborative relationship benefits all involved. The Tribe hopes this relationship continues well into the future.

In addition to air monitoring, the Air Quality Specialist has over two decades of environmental management experience. He is very familiar with State of MI and federal air quality programs, rules and requirements. He has significant experience with the Title V air permitting system and the resources available online. His knowledge of other environmental programs, such as the Toxics Release Inventory (TRI) program or Form R reporting is exceptional and will help build the Tribe's Air Quality Program's capacity.

LRBOI plans to elevate its education and outreach of air quality-related issues. The Tribe will raise air quality awareness in both Tribal and non-Tribal citizens. This increased awareness will help others better understand air quality issues and hopefully enable them to make more informed quality of life decisions.

LRBOI's Home Page

[www.lrboi-nsn.gov](http://www.lrboi-nsn.gov)



*Working to improve air quality for our Tribe, our community and our world.*



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

Jon Mauchmar – Environmental Specialist – Air Quality

Program in Existence since – 2004

Program Projects – Climate Change Adaptation, Energy Efficiency,  
Capacity Building and 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 LTBB 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 residential radon monitoring. In 2004, the Program was expanded to include a part-time Air Quality Specialist and again in 2007 to a full-time Environmental Specialist. Program Staff drafted an Emissions Inventory (EI) in 2007-08. From 2009-2011, the Program collected PM<sub>2.5</sub> data. An updated EI and Radon Data Collection QAPP were completed in 2013.

Climate change adaptation is a growing concern for LTBB and the Air Program has been supporting adaptation and mitigation efforts in several ways. The changing climate may affect wind direction and intensity, so we are looking into the potential for this to change the transport of air pollution from distant areas. This year, the Air Program also helped bolster the Tribe's renewable energy efforts through providing the LTBB Grants Department with proposals and technical information on the installation of solar arrays. Solar power is currently being considered at the LTBB Police Department and plans are being made to install solar panels at the Tribal fish hatchery this summer. The system being considered would prevent the emission of about 316 tons of carbon in the first 25 years of operation. The Air Program also aided in the completion of LTBB's first level 2 energy audit at the Tribal Health Park. Most LTBB owned/managed buildings were constructed over ten years ago and have never been through a complete energy audit. With technology advancing, it is likely that certain heating, cooling, and electronic retrofits could pay for themselves and allow LTBB to help reduce emissions. Currently, the Tribe is using Energy Star Portfolio Manager to track energy use, cost, and emissions to document improvements in the future. Solar power and energy efficiency is part of the LTBB strategy to mitigate and adapt to climate change. This will help the Tribe meet its Kyoto Protocol resolution of 25% energy use reduction by 2020.







### Lower Sioux Community

Deb Dirlam – Director of Environmental Programs

Amanda Strick – Environmental Specialist

Department in Existence since – Since 1992

Program Projects – IAQ, Ambient Air Quality, Education

Location – Morton, MN

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 establishments. Approximately 982 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.

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 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 2015-2016*

- Attended National Tribal Forum on Air Quality - Firekeepers Casino Battle Creek, MI
- Open Burning, Barrel Burning, Fire Prevention, Permitting
- Mold/Moisture Inspections
- Education on Carbon Monoxide, Radon, Mold/Moisture, Asbestos, Pests, Weatherization, Radon, fish consumption (mercury levels in the Minnesota River)





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

Shawn McKenney – Environmental Specialist

Program in Existence since – 2003

Program Projects – Conservation Incentive Program, Emission Inventory, Alternative Energy, Radon, Climate Change Adaptation Planning

Location – Shleboville, 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 339 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 members.

The Gun Lake Tribe recently adopted the “Gun Lake Tribe Climate Change Adaptation Plan” which addresses the impacts of climate change in southwest Michigan. The plan utilized a vulnerability index to rate climate threats to flora and fauna that are culturally significant to the Tribe as well as community health concerns including air quality, respiratory diseases and heating and cooling cost associated with climate change. The Gun Lake Tribe is addressing these concerns through adaptation strategies that include; the installation and use of renewable energy, development of a governmental fuel efficient vehicle purchasing policy, and improvements in agricultural practices on Tribal lands.

The Gun Lake Tribe broke ground on its new Government campus in 2013. The Government campus opened for business in September 2015. The Government campus has geothermal heating and cooling, LED lighting and bio-retention basins throughout the property. Approximately sixty-percent of the grounds are planted in native grasses and forbs to reduce surface water runoff and provide habitat for local fauna.

The Gun Lake Tribe Environmental Department recently premiered a wild rice documentary on behalf of the Gun Lake Tribe. The documentary film discusses the oral traditions of wild rice, harvesting/parching techniques and environmental impacts on wild rice. The Gun Lake Tribe hopes to publish the film in its entirety in 2016. Currently, a preview of the film is available on YouTube <https://www.youtube.com/watch?v=EMW17m1BIFU>.



*Ricer in wildrice bed – taken from the “Mnomen” documentary*





### *Menominee Indian Tribe of Wisconsin*

Jeremy Pyatskowitz – Environmental Services Director

Program in Existence – 2000 to 2010

Program Past Projects – Rn, Hg, Acid Rain

Location – Keshena, WI

The Menominee Indian Tribe of Wisconsin (MITW) is a federally recognized Indian Tribe that inhabits 235,000 acres in northeastern Wisconsin which is 95% forested. The population within the Menominee Reservation is 4,857.

The Menominee Tribe originally started the Air Program in 2000 to monitor for acid rain and mercury. The Program was funded by a R5 CAA 103 air grant. We participated with the National Atmospheric Deposition Network for laboratory work and reporting, after 2006 we no longer participated in the acid rain monitoring due to funding cuts, but we were able to keep monitoring mercury until March 2010. Mercury was continued longer as we filled a data gap within the State. One of the reasons air funding was cut was because there is not a huge issue with acid rain or mercury levels within the Reservation. There is no industry on the Reservation except a Tribally operated sawmill in the Village of Neopit.

Radon testing back in the 1980's and 1990's showed many of the homes on the Reservation with elevated radon levels. In 2009, the Tribe received a grant to do more radon testing on the Reservation. Our Program provided technical assistance to homeowners who wish to install remediation systems. With the grant we were able to test many of the Tribes housing units and remediation systems were then installed by another agency within the Tribe.

At this time there is no Air Program within the Reservation but the Tribe is considering obtaining TAS Authority under CAA Section 105 and will be considering applying for more funding to meet this goal.





### *Mille Lacs Band of Ojibwe*

Charles Jirô Lippert – Air Quality Technician

Program in Existence since – 1996

Program Projects – O<sub>3</sub>, PAH, IAQ, Permit Review

Location – East/Central MN

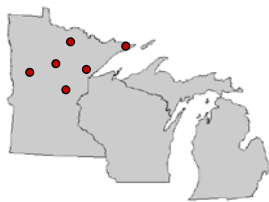
The Tribe began its Air Quality Program in September of 1996 with the constitutional reform of the Mille Lacs Band of Ojibwe. In the beginning, our elders knew of what the Air Program should address and made it part of the Tribe's statutes, but had no way of addressing our concerns, only hoping our vision would come together in the future. At the same time, Minnesota was under pressure to provide a determination for carbon monoxide (CO) and asked for partnership with the Tribe. From this partnership, the Tribe eventually received assistance from CAA Section 103 grant funding through EPA. From our humble beginnings of CO monitoring, we moved to monitor for PM<sub>10</sub>, then to PM<sub>2.5</sub> and Ozone (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 meteorological conditions, monitor for speciated PM<sub>2.5</sub> and for mercury (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 MPCA that may impact our people 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 indoor air quality (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 participated in the National Pollution Prevention Roundtable and was awarded to implement the Seventh Generation Initiative 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 has 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 seeking TAS, redesignation as Class I air-shed, and to restore Hg, Met, continuous and speciated PM<sub>2.5</sub> monitoring to characterize, model and inventory air pollutants affecting the Tribe's air-shed. Located in Minnesota's transition zone between urban and rural air profiles, Mille Lacs is looking for additional funding to restore monitoring projects and new air quality protection projects.

Mille Lacs Band of Ojibwe  
43408 Oodena Drive  
Onamia, MN 56359  
<http://www.millelacsband.com>

Chief Executive: Melanie Benjamin  
Commissioner of Natural Resources: Susan Klapel  
Executive Director of Natural Resources: Bradley Kalk  
Environmental Programs Manager: Perry Bunting



### Minnesota Chippewa Tribe

Michael Northbird - EPA GAP Coordinator/Environmental Program

Program in Existence since – 2015

Program Projects – In development

Locations – On and Off the: Leech Lake, White Earth, Bois Forte, Fond du Lac, Mille Lacs, and Grand Portage Reservations in Minnesota

The Minnesota Chippewa Tribe (MCT) is located throughout northern Minnesota and is a union of six (6) constituent Reservations, adhering to the MCT Constitution. The preamble states “in order to form a representative Chippewa Tribal organization, maintain, and establish justice for our Tribe and to conserve and develop our Tribal resources and common property; and to promote the general welfare of ourselves and descendants”. These Reservations are as follows: Leech Lake Band of Ojibwe, White Earth Nation, Bois Forte Band of Chippewa, Fond Du Lac Band of Lake Superior Chippewa, Mille Lacs Band of Ojibwe, and Grand Portage Band of Lake Superior Chippewa.

The MCT Environmental Program (MCT EP) is in the process of developing core Environmental Programs utilizing EPA grants. The Programs are being developed to ensure protection of MCT land both on and off the six component Reservations, as well as, strengthen the Tribes’ sovereignty overall. This requires protecting the quality of the water, air, and land resources by supporting the basic infrastructure of the MCT EP. While protection of air, water, and land resources are a priority, the Environmental Program also intends to assess a wide variety of potential project areas such as waste management, pollution prevention, emergency response planning, water quality management, air quality management, and education and outreach activities. Baseline needs assessments, GIS mapping, and an inventory of resources is currently in the process as well.

The MCT EP is committed to identifying which Air Program projects will be most beneficial to the Tribe. Upon collecting pertinent information, through technical assistance from the EPA and other Tribes, the MCT Tribal Executive Committee will determine what further action(s) will be implemented. Once a determination has been made, the MCT EP will apply for the specific resources necessary to ensure all actions are taken, in order to protect air quality under MCT jurisdiction.

*Minnesota Chippewa Tribe Headquarters Cass Lake, MN*





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

Amy Boetcher – Senior Environmental Specialist

Program in Existence since – 2001

Program Projects – IAQ, Rn

Location – Pine Creek Reservation, Fulton, Michigan

NHBP's Air Quality Program was initiated in April 2001 in response to 80% of Tribal Membership residing in counties designated with moderate to high potential radon levels. A radon reduction system was first installed in a Reservation home in 2008 and installation and testing in homes and government buildings has accelerated since that time. In 2011 we transitioned to the more protective WHO radon recommendation level of 2.7pCi/L. We have worked closely with a contractor and the Housing Department to install effective mitigation systems at minimal cost. In 2015 we have been troubleshooting existing systems and testing new Tribal elder duplex-housing.

This has also been a very eventful year with the NHBP hosting the National Tribal Forum on Air Quality (NTF) at the FireKeepers Casino Hotel. Attendance was greater than anticipated with over 200 participants representing 81 Tribes and Native Villages, and a number of national and regional EPA and agency staff. Keynote speakers included Lee Sprague from the Little River Band of Odawa Indians and Winona LaDuke, Executive Director of Honor the Earth. Hot topics at the Forum included oil and gas extraction, transport, and emissions, the direct impacts of Climate Change on native peoples and communities and CAFOs. Connections were drawn between issues that impact air, water, and other parts of the environment, most linked back to our industrial culture's addiction to fossil fuels. Culture was center stage throughout the conference with welcome drum songs and flag posting by Veterans, a condensed Great Lakes Pow-Wow with participatory Round Dance and tours of the Pine Creek Reservation.

Please visit the NHBP Website <http://www.nhbpi.com>



*NHBP Tribal Members Mini-Diop Jr, Kim Kardashian and Monee Zapata, present Winona LaDuke with a Medicine Wheel at the 2015 NTF.*



### *Oneida Tribe of Indians of Wisconsin*

Jeff Mears - Environmental Area Manager  
 Program in Existence since – 1988 Environmental, Health & Safety  
 Division was established  
 Program Projects – Climate Change Adaption Project Sept 2013  
 Location – Oneida, WI

#### **Silver Creek Restoration**

Silver Creek, also known as Bread Creek, is located in the central part of the Oneida Reservation. Ultimately, it empties into Green Bay. Like many streams in the area, Silver Creek has high levels of phosphorus from farming. Sedimentation is also affecting water quality. When we disturb the land, soil ends up in streams, lakes, and wetlands– and is carried away. Sediment is the largest form of non-point pollution and affects water quality all over the U.S. Sediment can cause channels to become clogged, can destroy wetlands, smother aquatic habitat, and degrade water quality for municipal, industrial, and recreational uses. High phosphorus levels and sedimentation in the bay are contributing to the dead zone – a portion of the bay that doesn't have enough oxygen to support aquatic life.

This pilot project will be done in cooperation with NEW Water– a branch of the Green Bay Metropolitan Sewage District. The project will restore wetlands near Silver Creek. Functioning wetlands act as a filter and can make water cleaner. The hope is that the restored wetland will clean the water and when the water in Silver Creek reaches Green Bay, it will have less phosphorus and sediment in it.

For more information contact Jim Snitgen, Water Resources Supervisor, at [jsnitgen@oneidanation.org](mailto:jsnitgen@oneidanation.org)



Drone photo of the portion of Silver Creek that will be restored.



Photo of Fox River flowing into Green Bay.



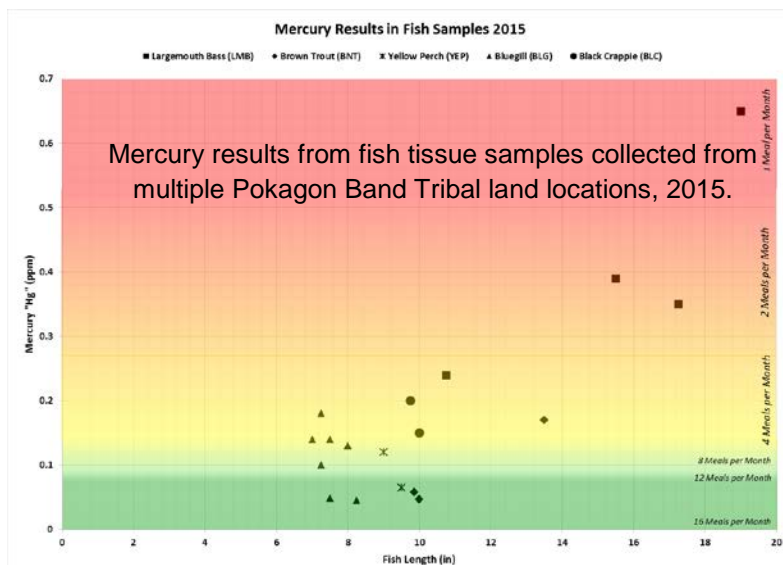
### Pokagon Band of Potawatomi Indians

Jennifer Kanine - Department of Natural Resources Director  
 Program in Existence since - 2000  
 Program Projects – Comprehensive Planning, Radon, Mercury  
 Location – Dowagiac, Michigan

The Pokagon Band of Potawatomi Indians was restored to federal Tribal status via congressional act on September 21, 1994. Instead of a Reservation, the Band was mandated a service area that consists of four counties in the southwest lower Michigan and six counties in north central Indiana. The Band is the only federally recognized Tribe in the state of Indiana.

Our Resource Protection Programs are integrated into Tribal Development activities through comprehensive planning. The goal is to mitigate potential direct and indirect impacts to air and water qualities up-front, rather than confront issues later. However, there are times when land acquisitions and historic property uses influence actions taken on those properties.

The Department of Natural Resources (PBDNR) recently performed soil testing on Tribal properties with historic apple orchards and discovered that the soils were contaminated with high levels of arsenic. To determine if the arsenic could be getting into surrounding lakes, waters, and ponds, the Band began investigating the water, soil, and fish samples to see if they may be affected by high levels of pollutants as well. The Band tested whole fish for this first round of testing to see the amount of pollutants within the fish that may be ingested by citizens who utilize the whole fish as well as the levels that are being ingested by wildlife. The results of the Band’s analyses indicate that PCBs and Arsenic were not the highest levels of pollutants in the fish, but mercury was high especially in the larger fish within Tribal properties. The high levels of mercury can partially be attributed to the fact that the Band’s Tribal properties are located close to coal powered energy plants that the mercury bi-product from those plants may be negatively affecting the ability for citizens to consume fish on regular occasions. Furthermore, there is likely more total mercury in the atmosphere than ever before due to the increase in coal-fired plants in China. PBDNR’s future efforts are to investigate the possibility of doing a fillet only analysis to determine how much filleting the fish may reduce the consumption risk to Tribal Citizens.







## Prairie Island Indian Community

Leya Charles – Air Quality Specialist

Program in Existence since – 1993, Air Program since June 2014

Program Projects –IAQ, Radiological Monitoring, Outreach/Education

Location – Welch, MN

Prairie Island Indian Community (PIIC) is located between the Mississippi River and Vermillion River in southeastern Minnesota, approximately 45 miles downstream of the Twin Cities. The area was named Prairie Island because it is surrounded on all sides by water, and was once dominated by native prairie and oak savanna habitats. Prairie Island is now composed of more than 3,000 acres of mixed use area.

### Emissions Inventory

CAA103 funding received in 2014 has allowed for development of an Air Program at PIIC. Projects implemented under this funding include IAQ and Outreach/Education. Additionally, a Level 4 Emissions Inventory is being completed, with a Level 3 inventory of Tribal sources planned to be conducted in 2016.

### IAQ

The IAQ program is conducting Tribal building and home assessments in response to requests from Tribal Members. Tribal land is located in a high risk zone for radon and moisture problems bring heavy mold growth indoors. Acquiring funding for remediating these issues needs to be addressed. PIIC's Treasure Island Casino is working on creating more smoke-free zones, increasing ventilation and smoke removal in the building. Smoke in the casino is a large concern, so this is an important project in remediating the issue.

### Outreach

The Air Program has partnered in hosting outreach events for the community including topics on both indoor and outdoor air quality. Topics include: non-toxic cleaning, proper burning practices, and waste disposal. The practice of wood and solid waste burning is common, and casino traffic creates a concern for car emissions. Proper waste disposal practices are in the progress of being implemented for community members and staff.

### Radiation

Xcel Energy's Prairie Island Nuclear Generating Plant is located just three blocks away from the community with spent fuel casks stored on-site and is a high priority concern for the community. Spring of 2015, a new air sampling unit was installed to monitor environmental radiation in order to address concerns from community members. PIIC has been monitoring radiological components through cooperative work with EPA's Office of Radiation and Indoor Air National Analytical Radiation Environmental Laboratory (NAREL) since 1993. The Program is looking to increase its capacity for monitoring a wider range of air quality concerns for the future, including the use of air monitors to collect baseline ambient air data.



Radiological Samplers



Dry wood burning and green cleaning displays at Health Fair





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

Ernie Grooms, Air Program Manager

Program in Existence since – 2010

Program Projects – IAQ-Basic Source Emissions Inventory

Location – Bayfield WI

Red Cliff is located on the Bayfield peninsula in the Northern most point of Wisconsin. We are surrounded on three sides by the life giving water of Lake Superior and enjoy a relatively undeveloped forest of hardwood and pine to our South, with just a few farm lands mixed in. As we are located so far north, the lack of heavy industry makes our area not only unique, but also an area much sought after for the nature enthusiast, with hiking, boating, and fishing in the summer months, to snowshoeing, skiing, and leisure during the winter. More importantly, the beauty within and around Red Cliff is due to our near “pristine” air quality. It is the goal of the Red Cliff Tribe to protect and maintain ALL aspects of our environment while promoting responsible future development.

The Red Cliff Tribe’s Indoor Air Quality (IAQ) Program is in its fifth year and falls under the Treaty Natural Resources Division/Environmental Department. The Air Program focuses on the completion of assessments for basic residential, office and school buildings located within Tribal boundaries. These assessments are used to determine “problem areas” within a given structure, with suggested methods to remedy most basic issues. Air samples are taken for CO, CO<sub>2</sub>, RH%, PM<sub>0.5</sub>, and WME% (wood moisture equivalent %). This information is documented “per room” to give a more accurate indication of problems and their source. The exterior walls/ceiling are photographed using a FLIR Thermal Imager to find any issues of sagging, wet, or inadequate insulation to give the home owner/business a “visual” representation for any necessary repairs. This unit also finds “hot” wires within walls where the electrical demand or a short exceeds product recommendations, which helps prevent a dangerous situation. Homeowner and office management education is also carried out by the information provided in their copy of the report, along with a “walkthrough” of their building/residence to better explain any areas needing attention. Pamphlets and other educational materials are readily available to the community to increase knowledge/awareness of indoor air quality, safety, and energy efficiency.

The Red Cliff Tribe recognizes that incidents of asthma and allergies are increasing, especially among our children. Proper management of moisture, air flow and insulation is a benefit to both health and energy costs. As many of our homes were constructed prior to 1980, IAQ assessments can aid in planning for upgrades/rehabilitation.

The Tribe is also very interested in ambient air quality as a natural resource, and environmental health issue that has not been thoroughly explored. Therefore, in 2016, Red Cliff Tribe will apply for additional funds to begin moving in the direction of air quality monitoring for the Reservation and its surroundings. This endeavor will not only facilitate participation in Regional issues, but further our ability to protect our people. Website: <http://redcliff-nsn.gov/>





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

Jennifer Malinski – Air Quality Specialist

Program in Existence since – 2007

Program Projects – CASTNET, PM<sub>2.5</sub>, Met, Hg Litterfall, Outreach

Location – Red Lake, MN

The Red Lake Reservation is a federally recognized closed Reservation encompassing over 835,000 acres of north-central Minnesota. The Reservation is the largest within EPA Region 5, comprising greater than 59% of the Federal Indian Trust land of the Region. The Tribe currently has 11,500 enrolled members, of whom about 6,500 reside on the Reservation. Preserving the Reservation's abundance of natural resources is critical to Band Members' health, welfare, traditional ways of life and economic viability.

The Red Lake Department of Natural Resources (RL DNR) began an Air Quality Program in December of 2007 with GAP funding and in 2009 secured CAA 103 funding. With the approval of its Treatment as an Affected Sovereign/State (TAS) application, the Program transitioned to CAA 105 funding in 2014.

Some of the Program's most notable achievements include: approval of TAS application for CAA Sections 105 and 505(a), completion of an Emissions Inventory (EI), acquisition of a Beta Attenuation Monitor (BAM), partnerships with EPA School Air Toxics Monitoring and Minnesota Pollution Control Agency Air Toxics Monitoring, participation in the NADP Litterfall Mercury Project, operation of Clean Air Status and Trends Network (CASTNET) small footprint site and collaborative projects with the American Lung Association (ALA). Other achievements include representation on TAMS Steering Committee, weather station installation, educational outreach at annual events (Health Fair, Water Festival, etc.) and radon 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 homes and increasing radon awareness through outreach events. We no longer have radon funding due to difficulty acquiring the required in-kind match.

Current priorities and projects include: working with CASTNET and the Ammonia Monitoring Network (AMoN), PM<sub>2.5</sub> continuous monitoring with assistance from the MN Pollution Control Agency, continued participation in the Litterfall Mercury Project, finalizing an SMP, IAQ assessments for Band Members, implementing the School Flag Program, updating the EI, and hosting and/or participating in local community events. Air quality issues we are most concerned with include mold in homes and smoke from prescribed burns and wildland fires. We are always looking for partnership opportunities that allow us to gain and share knowledge and experience.



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



### **Saginaw Chippewa Indian Tribe of Michigan**

Sally Kniffen – Environment Specialist

Program – Currently working with ITCM

Program Projects – Climate Change, EI, IAQ, Air Quality concerns  
for petroleum extraction operations

Location – Mt. Pleasant, Michigan

Air Quality Program Development for the Saginaw Chippewa Indian Tribe of Michigan.

The Saginaw Chippewa Indian Tribe of Michigan (SCIT) is progressing in developing their Air Program. The Tribe intends to apply for Air Funding in April 2017.

Travis Maki and Dwight Sargent, with Inter-Tribal Council of Michigan (ITCM) have been assisting the Tribe with indoor air quality issues in Tribal homes and buildings. An IAQ inspection was conducted in Tribal homes and buildings in 2014. We are building upon those findings and providing education and outreach to people with questions or concerns.

The Environmental Resources Technician position was filled December 2015. We hope to have this person involved in air quality under the guidance of ITCM.

The Environmental Team participated in a Community Day of Prayer July 2, 2015 at the Elijah Elk Cultural Resource Center with the 7<sup>th</sup> Generation staff. The day featured Peter Sinclair [https://en.wikipedia.org/wiki/Peter\\_Sinclair\\_\(blogger\)](https://en.wikipedia.org/wiki/Peter_Sinclair_(blogger)) *Climate Denial Crock of the Week* on YouTube. As well as, Lee Sprague, who spoke about the impacts of climate change on wild rice stands in Michigan.

The SCIT is also, participating with ITC on a Climate Change Adaptation plan for the State of Michigan.





### **Sault Ste. Marie Tribe of Chippewa Indians**

Kathleen Brosemer - Environment Program Manager

Program in Existence since – No formal program

Program Projects – Rn testing, IAQ, TV Review, Climate Change

Location - Sault Ste. Marie, Michigan

The Sault Tribe Environment Program is beginning to gear up on air resources work. We received approval for our first project under CAA 103 funding and will hire our first Environmental Specialist for Air Quality shortly. Until this time, none of our staff has had responsibility for air except for some work on indoor air quality and transportation issues through GAP.

Our service area includes airsheds that vary between pristine air quality (National forests in the eastern Upper Peninsula of Michigan) and quite impacted (urban areas affected by emissions from coke ovens at Essar Steel, across the border in Canada). In addition, the bedrock geology of this area contributes radon gas entry into homes and other buildings throughout our region, woodstoves are common sources of heat, and housing is subject to mold, environmental tobacco smoke, and other contaminants.

The Sault Tribe Environment program provides radon test kits and mold advice, as well as outreach on indoor air quality issues for tribal housing and off-reservation tribal members in the seven county service area.

Essar Steel, the large integrated steelmaker in Sault Ste. Marie Ontario, presents challenges. Cokemaking in large coke oven batteries results in fugitive emissions of carcinogens benzene and benzene derivatives such as benzo-a-pyrene and other polyaromatic hydrocarbons, on PM<sub>2.5</sub> particulates, small enough to lodge deeply in the lungs and create cancer risk. Despite this polluter being located in another country, we serve on its Citizens Liaison Committee and use that seat to bring a voice for upgrading their equipment.

Recent proposed industrial development in otherwise pristine airsheds of the eastern UP has led us to conclude that we must take steps to guard our ambient air quality throughout our service area. We want to be prepared and have the capacity to enter into consultations with Michigan and EPA on air quality issues when proposals come forward for permitting, hence the CAA 103 project request.

As one of President Obama's Climate Action Champion communities, we are keenly interested in moving forward with energy efficiency, clean energy, and renewable energy technologies for Tribal operations. This has been captured in our CAA 103 workplan, in tasks such as inventories of our diesel fleet in preparation for Clean Diesel equipment upgrades, and a woodstove change out program for Tribal homes. While we have yet to hire our Specialist, a summer intern has assisted with gathering data for these projects.





### **Shakopee Mdewakanton Sioux Community**

Simeon Matthews – Industrial Hygienist

Stan Ellison – Director of Land & Natural Resources

Program in Existence – Since 2011

Program Projects – IAQ, Alternative Energies, Composting, Tribal NSR

Location – Prior Lake, Minnesota

The SMSC was formally organized under federal reservation status in 1969. Since then, SMSC has grown to include more than 4,200 acres of land in fee and trust south of Minneapolis.

#### **IAQ**

Radon testing began in 2012 with additional outreach in 2014. Insulation and blower door testing is provided to identify IAQ issues related to condensation, drafts and ventilation. In 2015 a “door-to-door” Household Hazardous Waste program began; this improves residential IAQ, safety and environmental protection through prompt & appropriate household hazardous wastes re-use, recycling, or disposal.

#### **Alternative Energies**

SMSC operates [solar panels](#) on 7 facilities, a [wind turbine](#) that generates enough electricity for all of its residential demand, and two commercial buildings that include geothermal heating & cooling. These energy sources contribute to SMSC self-sufficiency and reduce its reliance on coal-fired energy plants. After considering a number of factors, E85 sales were discontinued at the last of three former E85 locations in 2015. Despite many pro-E85 agencies and organizations, a lot of studies predict that corn-based E85 actually worsens future CO<sub>2</sub> emissions and climate change impacts.

#### **Composting**

Composting, such as at the [Dakotah Roots SMSC Organics Recycling Facility](#), reduces greenhouse gas emissions locally. Surrounding municipalities & residents burn fewer fossil fuels via a shorter drive to compost and food wastes are diverted from landfills where they would produce methane, a potent greenhouse gas.

#### **NSR Minor Sources**

In 2012, the SMSC was issued the nation’s first air permit under the Tribal New Source Review (NSR) Program, allowing utility-controlled load-shed operation of emergency generators at its Mystic Lake Casino Hotel. The following year, 18 tribally-owned sources were registered under the Tribal Minor NSR. In 2014 the Tribe was issued three more permits, allowing the load-shed operation of 11 more emergency generators at three facilities. Monthly emissions monitoring has revealed that, for all three permits combined, actual NO<sub>x</sub> emissions remain consistent at 7% of permitted limits.





### **Sokaogon Chippewa**

Tina Van Zile – Environmental Programs Manager

Nathan Podnay - Hydrologist

Program in Existence since – No formal program

Program Projects – Building CAA 103 program

Location – Mole Lake, Wisconsin

The Sokaogon Chippewa Reservation is located in the northeastern portion of Wisconsin and is home to approximately 450 members. Although small, roughly 5,000 acres, the Sokaogon Tribe is keenly aware of how essential clean air is to the people and surrounding natural resources of the Reservation.

As of now the Sokaogon Chippewa Community does not have a federally funded Air program in place, but hopes to institute one in the near future. The Tribes main concerns related to air quality can be broken into two categories: indoor and outdoor. The key indoor air quality concerns center around mold, radon and smoking. Radon is of particular concern, stemming from naturally elevated levels in the region and their relation to lung cancer. Outdoor concerns include but are not limited to: wood burning stoves, dust from unpaved roads, deposition of mercury and impacts stemming from climatic change. Mercury deposition is of paramount concern due to the significance of fish in Community Member's diets.

The Tribe is currently installing a weather station to better support their water quality program and hopes that it will be the foundation of a CAA 103 program in the near future.





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

Jonathan Knight – Air Quality Specialist

Program in Existence since – 2004

Program Projects – Indoor and Ambient Air Quality

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

Through the years the St. Croix Tribe has received intermittent funding to try to maintain an Indoor Air Program and in the years funding was not available, General Assistance Program (GAP) funds have been used to maintain very basic services to the Tribe. With the EPA funding, St. Croix has been able to provide indoor air quality assessments and education to our Tribal Members for several years.

Our Indoor Air Program staff continues 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 deal with moisture issues resulting in mold concerns. As a result the main focus of the indoor air quality staff has been building science relating to home maintenance and construction. With the help of our Housing Department we have been able to acquire a blower door system and use this to assess our homes more thoroughly. Several other areas are periodically called upon for testing including CO, radon, VOC's, ETS, sewer gases, asthma triggers, and pests. We have also recently expanded our relationship with our housing department into a safety team that includes a group from the St. Croix Tribal Clinic. We are still in the planning stages, but ultimately we hope that this group will be able to assess homes thoroughly together as a team.

We are continuing to progress in our efforts to grow our Ambient Air Program. We are attempting to expand our capacity in ambient air monitoring, especially since St. Croix has no baseline data to go on as far as the current state of the air around us. The Tribe's emissions inventory is complete but continually edited as needed. We continue to review permits on the emissions sources that affect the Reservation's air quality. Ambient air quality is an issue that has 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 coming closer and closer to the Reservation. Through trainings and the use of the program TEISS, ITEP has been an excellent resource we have used to expand our knowledge base for our Ambient Air Program. TEISS has been really helpful in helping us locate and keep track of the known and even previously unknown emitters in our area that have substantial effect on the air shed that the Reservation relies on.

The CAA 103 funding has allowed programmatic growth by retaining qualified staff to serve as a resource for the St. Croix communities and to create a program active in Region 5 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/index.php>





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

Greg Bunker – Environmental Department Manager  
 Program in Existence since – No formal program  
 Program Projects – IAQ, Investigate Class1 Airshed Designation  
 Location – Wisconsin, between Green Bay and Wausau



*Wild lupine and a clear sky at a Tribal prairie restoration.*

The Stockbridge-Munsee Tribe currently does not have a formal program funded by specific air grants. We anticipate future needs in funding and manpower, as intensive agricultural in the form of expanding confined animal feeding operations (CAFOs), and industrial development within 50 miles of the Reservation increases. We also include indoor air quality (IAQ) assistance and investigations within the scope of activities to Tribal Members and Tribal governmental buildings. This includes investigations on mold, asbestos and radon in homes and governmental buildings as-requested or where problems are suspected. This activity is funded by EPA General Assistance Program (GAP) funding and Tribal dollars. We have not received any complaints about outdoor wood boilers, however we would like to be proactive and propose updates to the Tribal Air pollution Control Law before this becomes an issue. There are a few minor air pollution sources on the Reservation, electric generators and a gas station. Assistance to register these in the EPA database has been offered.





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

Jared Wagner – Environmental Specialist

Program in Existence since – No formal program

Program Projects – IAQ assistance to Tribal Members

Location – Granite Falls, MN

There is an ongoing need for the Upper Sioux Community (USC) to develop an Air Program to address both indoor and ambient air quality. Located within 4 miles of the USC below are a few of the known industrial sources of concern near the Community:

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

The Big Stone coal-fired Power Plant, which has been online since 1975, is located about 70 miles upstream at the headwaters of the Minnesota River near Milbank, SD.

Our Community is surrounded by small-scale farming and industrial agriculture which emit several pollutants of concern, including various odors, anhydrous ammonia, fine particulate matter and pesticides. High winds in recent years have created ‘dust storms’ which turn the sky dark gray with the loose top soil sediment.



There are indoor air quality concerns with radon, mold and smoking. Some homeowners still use open burn barrels/pits within close proximity to the USC.

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





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

Dustin Spaeth – Environmental Coordinator

Program in Existence since – No formal program

Program Projects – Radon, Wind Energy, Outreach & Education

Location – Mahnomen, MN

The White Earth Band of Ojibwe (Gaa-waababiganikaag), a sovereign nation, is entrusted to protect the land base, 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.

#### **White Earth Environmental Program Projects include:**

- The development of an Air Quality Ordinance (EPA-GAP);
- Radon testing in privately owned homes (EPA-GAP);
- Outreach to Band Members regarding air quality and how it affects health;
- The Reservation Housing Authority radon testing and yearly inspections for IAQ concerns;
- Addition of wind energy turbines to the White Earth Reservation.

Ten years ago, the White Earth Nation took initial steps in creating a renewable wind energy resource on the Reservation. Currently, White Earth is home to three wind turbines, with the plan of scattering multiple others across the Reservation. Also, the White Earth Department of Natural Resources has currently distributed 600 radon test kits throughout the White Earth Reservation. There will be an ongoing distribution of radon test kits along with continued outreach efforts on the issue. White Earth will also be implementing a climate change adaptation plan in the near future, as well as, gaining lead and asbestos certification to inspect Tribally owned homes. White Earth has been extremely involved in outreach events raising awareness about the concerns of indoor air quality and will continue to do so for the years to come.





### 1854 Treaty Authority

Darren Vogt - Environmental Director  
 Program in Existence since – No Formal Program  
 Program Projects – Environmental and Permit Review, Policy Review,  
 Climate Change, Education and Outreach  
 Location – Duluth, MN

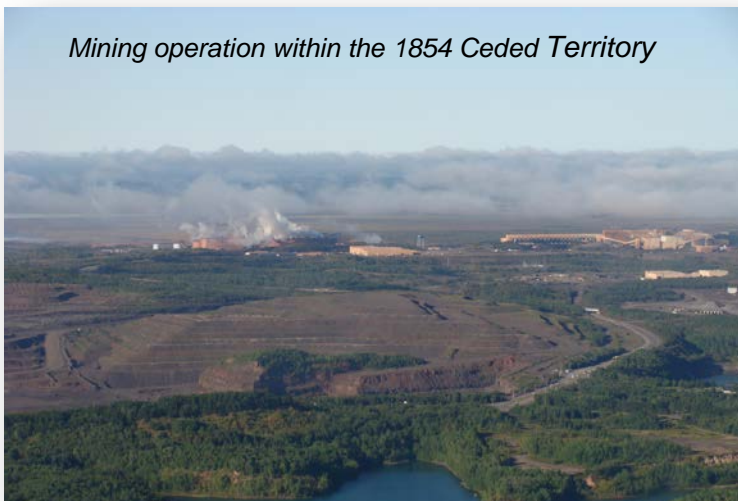
The 1854 Treaty Authority is an inter-Tribal resource management agency governed by the Bois Forte Band of Chippewa and Grand Portage Band of Lake Superior Chippewa. The organization is charged to preserve, protect, and enhance Treaty Rights and related resources in the 1854 Ceded Territory. This Ceded Territory covers 5.5 million acres across present-day northeastern Minnesota.

Bands retain Treaty Rights to hunt, fish, and gather in the 1854 Ceded Territory. Due to these rights, the 1854 Treaty Authority is concerned about the availability and health of the resources. An important issue is mercury deposition and the impacts to fishery resources. Many Band Members consume a diet high in fish and may face health risks when mercury levels are elevated. Consumption advisories are not a solution to the problem. Instead fish must be made safe to eat for both nutritional and cultural benefits.

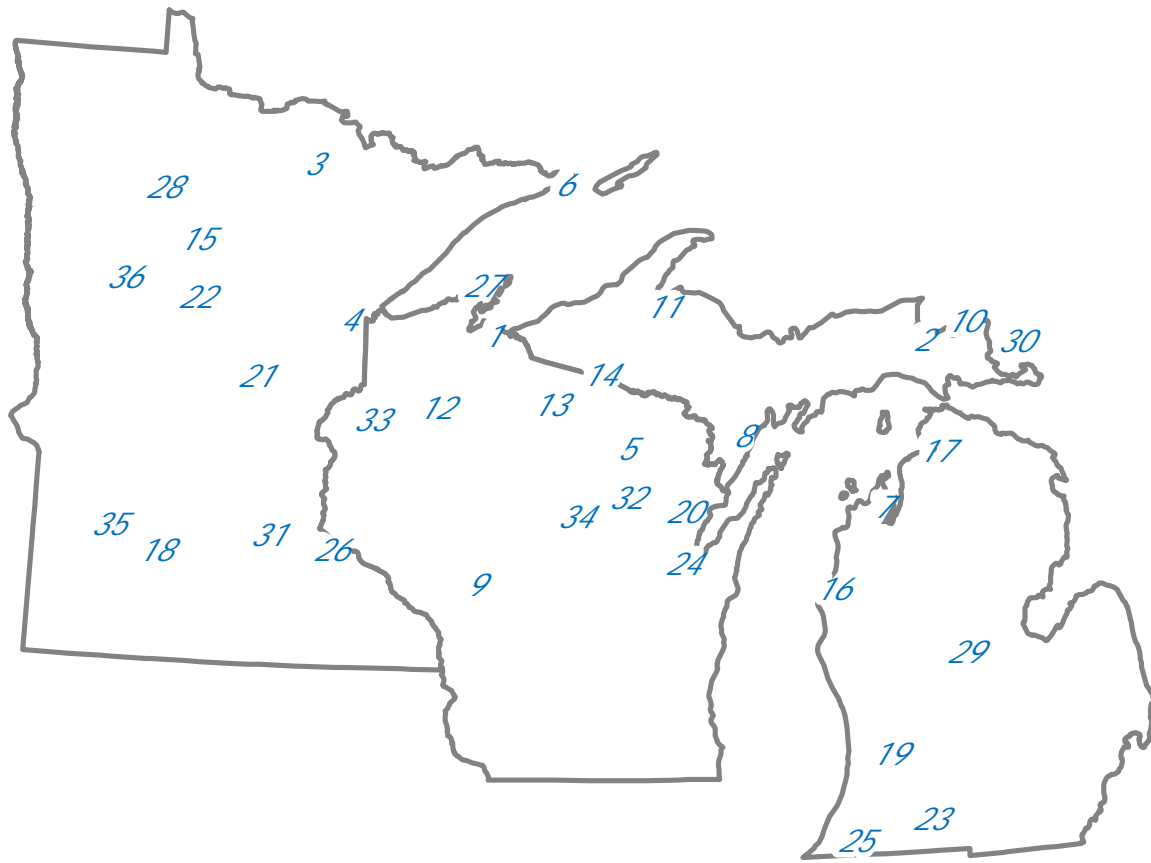
The 1854 Treaty Authority looks to track air impacts to the 1854 Ceded Territory from sources such as power generation units, mining, and other industrial facilities. Mining has had a large impact to the Ceded Territory, with many projects ongoing and new projects being proposed. The 1854 Treaty Authority coordinates with federal and state agencies in the environmental review and permitting processes. Time is also spent reviewing and commenting on policies that may affect the air quality within the 1854 Ceded Territory.

The 1854 Treaty Authority does not have a formal air program, but addresses air issues, to some degree, under activities of the Environmental Program as it works to protect human health and the environment. Additional support for training, staff time, etc. would assist to develop an Air Program and become more engaged in issues.

*Mining operation within the 1854 Ceded Territory*



# US EPA Region 5 Tribes



- |   |  |
|---|--|
| 1 Bad River Band of Lake Superior Chippewa                | 19 Match-E-Be-Nash-She-Wish Band of Potawatomi Indians |
| 2 Bay Mills Indian Community                              | 20 Menominee Indian Tribe of Wisconsin                 |
| 3 Bois Forte Band of Chippewa                             | 21 Mille Lacs Band of Ojibwe                           |
| 4 Fond du Lac Band of Lake Superior Chippewa              | 22 Minnesota Chippewa Tribe (Consortia)                |
| 5 Forest County Potawatomi Community                      | 23 Nottawaseppi Huron Band of the Potawatomi           |
| 6 Grand Portage Band of Lake Superior Chippewa            | 24 Oneida Tribe of Indians of Wisconsin                |
| 7 Grand Traverse Band of Ottawa & Chippewa                | 25 Pokagon Band of Potawatomi                          |
| 8 Hannahville Indian Community                            | 26 Prairie Island Indian Community                     |
| 9 Ho-Chunk Nation   | 27 Red Cliff Band of Lake Superior Chippewa            |
| 10 Inter-Tribal Council of Michigan, Inc. (Consortia)     | 28 Red Lake Band of Chippewa Indians                   |
| 11 Keweenaw Bay Indian Community                          | 29 Saginaw Chippewa Indian Tribe                       |
| 12 Lac Courte Oreilles Band of Ojibwe                     | 30 Sault Ste. Marie Tribe of Chippewa Indians          |
| 13 Lac du Flambeau Band of Lake Superior Chippewa Indians | 31 Shakopee Mdewakanton Sioux Community                |
| 14 Lac Vieux Desert Band of Chippewa                      | 32 Sokaogon Chippewa Community                         |
| 15 Leech Lake Band of Ojibwe                              | 33 St. Croix Chippewa Tribe of Wisconsin               |
| 16 Little River Band of Ottawa Indians                    | 34 Stockbridge-Munsee Community                        |
| 17 Little Traverse Bay Bands of Odawa Indians             | 35 Upper Sioux Community                               |
| 18 Lower Sioux Indian Community                           | 36 White Earth Band of Chippewa                        |

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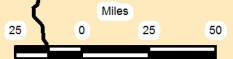
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# Region 5 Ceded Territories



Boundaries for Ceded Territories are for illustration purposes only. The boundaries were digitized at a very coarse scale. Not for legal use. Years may not be accurate.

Sources: C. Lippert, USGenWeb Archives, Library of Congress, Leech Lake DRM 12/17/2013, UTM Zone 15N