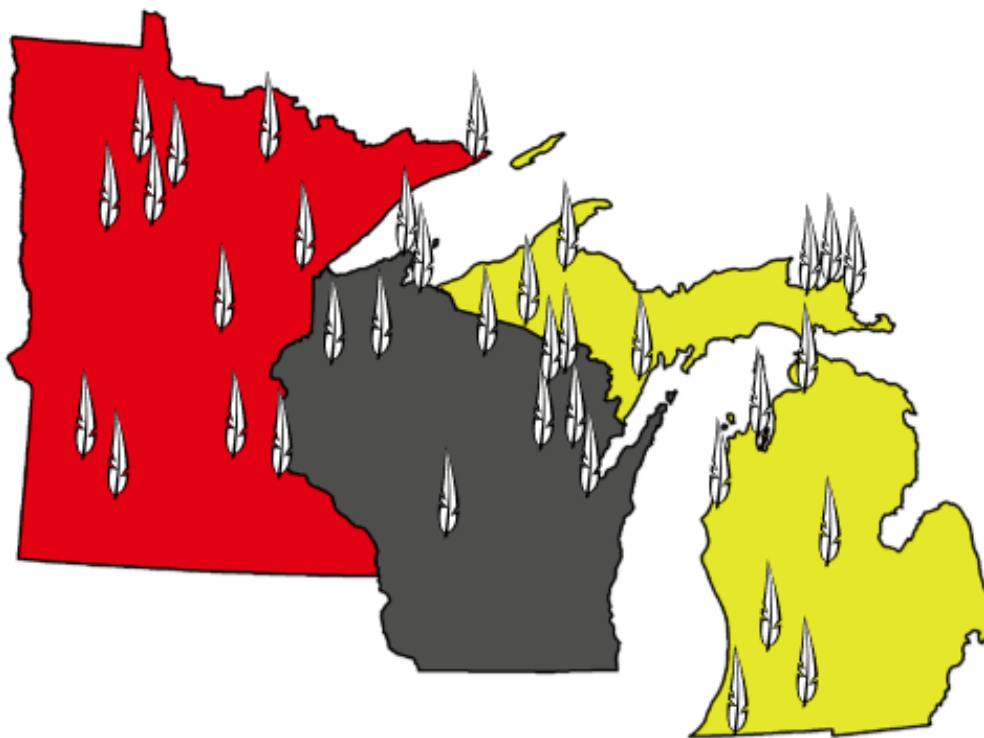


Tribal Air Resources Journal

*Accomplishments, Obstacles, Successes and Setback of
EPA Region 5 Tribes – Air Quality
2018 “Celebrating One Decade” Edition Volume X*



The *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 tenth 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 Tribal Nations as a symbol of the air and natural resources that we are protecting.

In this issue:

**Upper Sioux plan for
Air Program**

**Saginaw addresses
flooding concerns**

**Nottawaseppi GIS map
oil wells**

**Red Cliff starts PM_{2.5}
study**

**Bad River sponsors
Radon Fun Run**

**2 Tribes close to
finalizing Class 1
redesignation**

**Leech Lake does first
STAG/SIRG funding PPG**

**Forest County
Potawatomi represent
Tribes on CAAAC**

**MTERA grows to eight
member Tribes**

**Keweenaw Bay applies
for Air TAS**

**Emission Inventories on
the rise, multiple Tribes
completing or inprocess**

*All 35 R5 Tribes are
represented in this
Tribal Air
Resources Journal*

A Decade of Air Sharing

Welcome to Region 5's tenth edition of the Tribal Air Resources Journal. Since 2008 this Journal has provided Tribes with a platform to promote their accomplishments and successes along with sharing obstacles and setbacks encountered along the way. The Journal is not only meant for EPA readers, it is equally meant to tell our story to others across Indian Country, federal and state agencies, and other areas of outreach and opportunity. It is the goal of the Journal to create awareness that: Tribes have viable Air/Environmental Programs and expertise, Tribes are leading cutting edge studies, Tribes are sovereign nations and Tribes are great partners. It also shows that there is need and so much more work to be done. Over the years the Tribal Air Resources Journal has expanded from journal entries to include location maps, contact listings and a Ceded Territory map. Each Tribal submission is capped at one page, thus creating a short synopsis of the work they do and may have focused on in 2018. Needless to say there is so much more that each Tribe does. Please contact the Tribe(s) with any questions or comments as this is what the Journal is designed for; to create awareness and conversation.

We are proud to celebrate one decade of the Tribal Air Resources Journal. It is even more rewarding is the fact that readers are asking when the next edition will be released. This shows the value and interest that the Journal has garnered. You may be wondering why grey was chosen as this year's accent color? Traditionally tin is the gift for a 10 year anniversary, thus we hope you enjoy our anniversary gift of a decade of journals to you.

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. Join us in celebrating one decade of the Region 5 Tribal Air Resources Journal.

-Region 5 Tribes

2018 Summary of Facts for EPA R5 Tribes

Clean Air Act Implementation

- 7 Tribes in R5 currently have Treatment as a State (TAS) status. Of the 7, all TAS Tribes have CAA 105 with reduced grant match and CAA 505(a)(2) for Title V notification. Two of these Tribes also have CAA 126 authority. One Tribe is in process for TAS in 2018 and we anticipate one more Tribes to submit applications in FY19. Many other Tribes have TAS in their ETEPs and long-range strategic plans.
- 1 Tribe has PSD Class I redesignation. 2 Tribes are in their own response to comments stage of Class I redesignation process and plan to submit formal requests to EPA. One Tribe has plans to scope out Class I redesignation. Multiple other Region 5 Tribes are evaluating Class I into their long-range plans.
- One Tribe in R5 is assessing the feasibility of a Tribal Implementation Plan (TIP).
- In 2016, the SIP Rule change for Wisconsin to comply with Forest County Potawatomi Class I Redesignation has been amended into the Wisconsin SIP for FCP Class I Area administration.

EPA Funding

- **Clean Air Act** – 15 Tribes requested \$1,813,019 for air quality project/program support from EPA. 14 Tribes were partially funded with R5 FY18 State and Tribal Assistance Grant (STAG) funds totaling \$1,283,755. 7 Tribes received CAA 103 grant funding and 7 Tribes received CAA 105 grant funding. All 7 105 grantees have incorporated their Air Grants into a PPG grant for FY18. One Tribe has implemented an air media only PPG. R5 has implemented a 2 year workplan with a staggered funding structure for established Tribal Air Programs.
- **Tribal Radon (SIRG) Grants** – 2 Tribes were operating under Tribal radon grants in FY18. In FY19 EPA has 3 available grants of \$45,000 each. Multiple other Tribes are utilizing their GAP, Tribal or other funding source to implement radon outreach, testing and mitigation projects.
- **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.

Past Funding Opportunities

- **American Lung Association** – Four R5 Tribes worked 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 installed a 1 megawatt photovoltaic solar array. EPA has started a repository for Tribes to submit their proposals for potential SEP projects.
- **MN State LCCMR funding** – 200kW community solar garden for low income Tribal Members.
- **Department of Energy** – Investment Grade Audits grant for 22 buildings on a Reservation.
- **GAP** – supplemental funding for air projects that was above STAG funding levels.
- **Tribal Environmental Health Grants** – Cooperative Indian Health Service agreements to promote Reservation sustainability on Reservations with benefits of air emission reductions.
- **DERA/VW Funds** – available diesel funds multiple Tribes in R5 plan to submit proposals.
- **Stove Swap** – Environmental Initiative project for NE Minnesota, from SEP funding.

*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
- Tribal Air Monitoring Support Center (TAMS) – 2 Steering Committee Representatives
- National Tribal Air Association (NTAA) – 2 R5 Tribal Reps, Vice Chair of Executive Committee
- National Radon Action Plan (NRAP) –Committee Member and NTAA Representative
- Conference of Radiation Control Program Directors (CRCPD) E-25 Committee Member
- 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
- Minnesota Clean Air – multiple Tribes participating
- 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
- NTAA VW Diesel Workgroup
- NTAA Indoor Air Quality Workgroup
- NTAA Woodstove Workgroup

Regional and National Meetings:

- EPA R5 Tribal Air Meeting – at the R5 Tribal Environmental Program Management meeting
- 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 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 – 2018 Forum was hosted by the Fond du Lac Band of Lake Superior Chippewa, 2019 will be in southern California

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. For a copy of this document contact: Brandy Toft brandy.toft@llojibwe.org 218.335.7429.

Tribe Finder

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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 ₂	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
MTERA	Midwest Tribal Energy Resources Association
MPCA	Minnesota Pollution Control Agency
NAAQS	National Ambient Air Quality Standard
NADP	National Atmospheric Deposition Program
NO _x	Oxides of Nitrogen
MNSR	Minor New Source Review
NSR	New Source Review
NTAA	National Tribal Air Association
O ₃	Ozone
pCi/L	Picocuries per liter
PM	Particulate Matter
PM ₁₀	Particulate Matter with a diameter of less than 10 micrometers
PM _{2.5}	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 ₂	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_{2.5}, O₃, Hg, Met, Rn, IAQ
 Location – Odanah, Wisconsin

The Bad River Band started an Air Program in 2001 to fulfill the Bad River Natural Resource Department's mission of protecting and conserving the natural resources, maintaining ecosystem integrity, and managing the natural resources for future generations. The water and air quality of the entire Bad River watershed is a priority and Bad River's Air Office works to fulfill those goals.

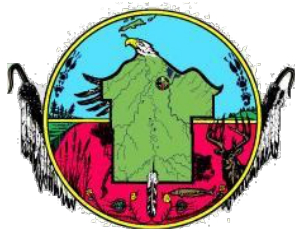
Bad River continues to monitor fine particulate pollution and ground-level ozone for comparison to the National Ambient Air Quality Standards (NAAQS), received Treatment as a State (TAS) in 2009, and is current pursuing a redesignation from Class II to Class I for the Bad River Reservation. Short and long-term projects have been made possible with partnerships and support from EPA, USGS, Wisconsin DNR, NRCS, and the BIA. Many thanks to everyone for their support and help.

The Bad River Air Program has been working on several new projects this year. After many years of filter-based fine particulate monitoring, Bad River recently installed a continuous fine particulate monitor. This new capability will allow the monitoring of short-term changes in fine particle pollution that we previously were not able to monitor closely.

The Air Program also applied for an NRCS/BIA project that will allow the Bad River Band to host a soil climate analysis network weather station. This station will fill in large data gap that will provide more detailed wind pattern information, as well as provide more information when looking at drought and heavy precipitation events. The other goal of the NRCS/BIA project was to be able to use the station and information in STEM education, the web portal is still being developed but upon completion, this project will be a useful tool for many programs and classes.

Outreach and education are vital tools to support all Air Program objectives, specifically with testing for radon and mitigating the multiple indoor air issues. All of the Bad River Natural Resource Office programs host and participate in an annual Lake Superior Day celebration in July with tables and displays of information for the public to view while they interact with the staff members. Everyone is welcome to come join us in July 2019!

In the past few years the Air Program has sponsored the Radon Fun-Run, provide technical training to Tribal staff, and provided information through displays, brochures, webpage, and Tribal newsletters. The fun-run is always a hit and this year we had 90 people participate. The kids were just as focused on the run as the adults.



For more information on the Bad River Band's Air Quality Office, visit <http://x.co/BRair>

Radon Fun-Run participants finishing strong.



Bay Mills Indian Community

Dwight Sargent, GAP Coordinator

Program in Existence since – 1991

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 our natural resources as a source of food and commerce and 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





Bois Forte Band of Chippewa

Vacant – Environmental Health Specialist

Program in Existence since – 2002

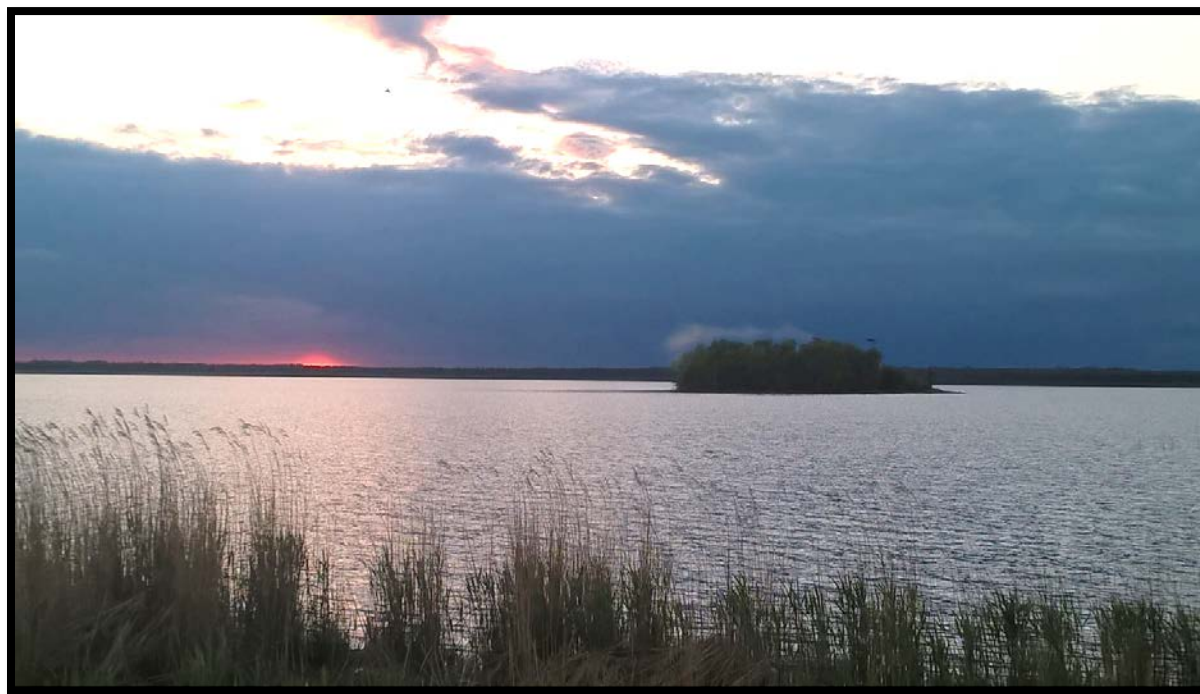
Program Projects – IAQ, Asthma Awareness, Climate Change

Location – Nett Lake and Vermillion (Tower), MN

The Bois Forte Environmental Services Department has not had a Tribal Air Quality Program in a few years. The need for this Program has increased to include the growing methamphetamine concerns growing across the Nation. The Bois Forte Housing Authority is reporting mold issues, along with carbon monoxide concerns. As our community has built new homes, so has the coverage of indoor air quality concerns grown.

Funding for a climate change study would have a big impact on our natural resources as well.

It is still the hope of our communities that funding can be obtained to address these continued and growing concerns.



Spirit Island on Nett Lake





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, O₃, Hg: wet & leaf litter, PM_{2.5}, 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 CAA in 2004. The Program provides the Band with expertise on environmental issues related to air quality. In order to protect Fond du Lac resources, the Program reviews and provides feedback on 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. Our Air Coordinator currently serves as the R5 alternate on the NTAA Executive Committee. 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 six field seasons, and hopes to continue this work. We hope that this data can help the scientific community study and predict the fate of mercury emissions in the environment and evaluate water quality in the area, as well as the effectiveness of mercury controls. To this end, the Band is working with the Fond du Lac Tribal and Community College (FDLTCC) and other Tribes to analyze the data we have gathered over the years.

The Band continues to pursue Class I Redesignation of the Reservation. The Band is working to improve energy efficiency in Reservation-owned buildings. In 2015 the Band installed a 1 megawatt photovoltaic installation in cooperation with Minnesota Power which provides clean power to the Band's Black Bear Casino Resort.

The Band has instituted a no-idling policy for Reservation school buses which will help protect the health of our schoolchildren. Air staff members are working to expand this policy to other areas on the Reservation. No-idling signs at the Reservation school buildings are in both the English and Ojibwe languages.



In 2018, Fond du Lac air staff teamed up with staff from the FDLTCC and the University of Minnesota – Duluth to study an air quality issue near the FDLTCC campus. Students at each of these schools were involved in the project and were able to present results at the 2018 National Tribal Air Forum, hosted by Fond du Lac at the Black Bear Casino Resort.

Fond du Lac submitted two applications to receive Volkswagen settlement funds in 2018 – one from the Tribal set-aside and one for funds held by the Minnesota Pollution Control Agency. In both of these applications we proposed the construction of electric vehicle charging stations on the Reservation, as part of a statewide network.



Forest County Potawatomi Community

Natalene Cummings – Air Quality Program Manager

Joe Cebe – Air Quality Specialist

Program in Existence since – 2002

Program Projects – O₃, SO₂, Acid & Hg dep, PM_{2.5}, Met, IMPROVE

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 O₃, SO₂, vaporous Hg, PM_{2.5}, collectors for acid and Hg deposition, and participation in the Interagency Monitoring of Protected Visual Environments (IMPROVE) network.

The FCPC Reservation was designated as a Class I area in 2008 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 permit applications. 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.

Under its Class I authority, FCPC has established air pollutant thresholds for the Tribe's AQRVs - vegetation, water quality and visibility. These thresholds are used to conduct air pollution modeling and determine if the proposed emissions from a new or modified facility may have an impact on the AQRVs. FCPC participates in discussions with the state issuing permits of concern to the Tribe, to insure emission limits are in place to protect resources.

FCPC's Air Program staff have, and continue to participate in Tribal air groups on a regional and national level. The Air Quality Specialist just completed two terms on the Tribal Air Monitoring Services (TAMS) steering committee as a representative for Region 5 Tribes and the Air Program Manager is currently holding a seat on the Clean Air Act Advisory Committee (CAAAC) as a Tribal Air Programs representative.

New monitoring equipment has been added for 2018 to keep consistency in the Tribes monitoring network and FCPC continues to participate in the Litterfall Mercury Monitoring Initiative for 2018, including NADPs Hg Deposition Network (MDN) and the National Trends Network (NTN). We also continue to perform Tekran gaseous Hg monitoring and ongoing sampling of fish tissue. Mercury is a pollutant of great concern to FCPC and is a pollutant for which the Tribe has a Class I AQRV threshold.



FCPC Air Monitoring Site 2018



Grand Portage Band of Lake Superior Chippewa

Vallen Cook – Air Quality Specialist

Program in Existence since – 2003

Program Projects – PM_{2.5}, 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 have had an established Air Program since 2003. Our focus has been on ambient air monitoring, indoor air quality, environmental education and regional haze. In 2017 we attained TAS status for our Program. Our intent is to begin looking at a Class I Designation for our air shed in the coming years.

The biggest event to note this year was the effect of smoke from wild lands fires that affected our Reservation. During our annual pow wow this year we had air quality warnings due to the smoke combined with low winds which allowed the smoke stay in our bay for the entire weekend. This is something we are keeping an eye on and are working with our prescribed burning and wildlands fire programs to help plan for those who are sensitive to changes in air quality. Going forward we are going to start focusing on how to educate the community on air quality warnings and where they come from.

In the past years we have had trouble with indoor air quality and this year was no different. During our annual health fair we had a signup sheet for indoor air assessments, three or so people signed up. I originally had four people, the last person had asked about help with funding in repairs and I answered that there was no funding in my program to do repairs, they quickly scratched out their name and then proceeded to ask what the point of the assessment was. The other three that had signed up we were able to do an IAQ assessments on their homes. We have been making our goal of three IAQ assessments a quarter barely; what is encouraging and hard is that our people have a pretty good sense of what healthy IAQ looks like.

We did a series on renewable energy with the Oshki Ogimaag Charter School focusing what sources of renewable energy are available. We built model wind mills and solar cars with them to give them more of a hands-on experience. Outreach to our students is very important as they bring home what they learned to their parents who in turn begin to ask questions about our air quality.

Partridge Falls on the Grand Portage Reservation.





Grand Traverse Band of Ottawa & Chippewa Indians

Kris Ingrao – Environmental Service Coordinator

Program in Existence from - 2002 to 2010

Program Past Projects – O₃, IAQ, Hg, EI, 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 Peshawbestown, Michigan. GTB's Natural Resource Department (NRD) Environmental Program was established on October 1, 1997 through grant funding from the U.S. 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 Clean Air Act (CAA) 103 grant funding. The Air Quality Program began with National Atmospheric Deposition Program (NADP) monitoring and during the eight years of existence added ozone monitoring, household 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 EPA. In 2009, GTB was working to secure Treatment as a State (TAS) and CAA 105 funding. In 2011, GTB had 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 a program. Although in 2015, GTB re-affirmed air quality as a Tribal priority in 2015-2019 GTB Tribal Environmental Agreement, we still lack the funds or the staff for a program. In support of the importance of air quality and other Tribal programs, GTB is working to donate our air quality monitoring equipment to other regional Tribes.

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 five federally recognized Tribes within Michigan. These activities included radon testing of several Reservation homes, along with the development of outreach fliers which include environmental tobacco smoke, indoor wood burning, and radon. In 1997, the Community received its own EPA 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 is in an area of moderate potential for radon levels above 4.0 pCi/L.

The Hannahville Environmental Department began radon 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.

Visit our website at www.hannahville.net





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

Over the past year, the Ho-Chunk Nation (HCN) Air Quality Program has stepped-up efforts to promote the services that it offers to Tribal Members. Promotional materials were purchased and distributed to members at large Tribal events. The materials included t-shirts, Frisbees, lanyards and educational pamphlets. The goal of the increased efforts is to educate Tribal Members on possible air quality hazards and make them aware of resources available to them that can assist with assessing whether there is a danger, and what actions can be taken to minimize it. Since the increased promotional efforts began, the HCN Air Quality Program has seen an increase in the amount of requests for radon testing and mold investigating.



An Air Quality Program booth set up to promote services provided by the Air Program at a Ho-Chunk Nation Health Department Health Fair in August of 2018.

On the ambient air monitoring side of things, the HCN installed two Ambient Air Monitoring Stations on Tribally-owned lands in June of 2017. The stations were funded and established in response to Tribal Members' concerns over possible impacts of large frac-sand mining operations on local air quality. Both stations are equipped with continuous dichotomous PM monitors and meteorological systems. The intent of these stations is to produce regulatory PM data comparable to the National Ambient Air Quality Standards. Currently, the HCN has submitted a Quality Assurance Project Plan and is awaiting approval from the EPA.



Inter-Tribal Council of Michigan, Inc.

Travis Maki – Environmental Specialist

Program in Existence since – 2000

Program Projects – PM_{2.5}, MET, O₃, IAQ and Regional Haze monitoring

Location – Sault Ste. Marie, 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_{2.5}, Haze, Ozone and meteorological data and these efforts are also in coordination with the Michigan Department of Environmental Quality's monitoring network. As part of the work with the MDEQ, ITCMI is uploading data to the MiAir Website.

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

MiAir Website

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



Keweenaw Bay Indian Community

Jane Kahkonen – Air Quality 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 Upper Peninsula of Michigan in a rural and pristine area on the shores of Lake Superior. 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. The Reservation also has land in Marquette and Ontonagon Counties. KBIC is within the boundary of the Ceded Territory of 1842.

The KBIC Air Quality Program (AQP) is currently working under its sixth year of EPA Tribal Air Program funding. The AQP continues to grow in accordance with the concerns of community Tribal Members and values stated in the KBIC Integrated Resource Management Plan of "Preserving the land, air, and water quality without sacrificing sovereignty". Community interests about air quality include respiratory health within the home, Mercury deposition that affects water and traditional food resources, continuing our NAAQS designation of attainment, and being stewards for next seven generations.

KBIC AQP collaborates with their Housing Department, Health Clinic, Head Start, and Public Works to identify and assess multiple issues that contribute to poor air quality; both indoor and out. Mold, radon, wood smoke, and CO concerns continue to make home visits a top priority. The AQP provides education, outreach, site assessment, and consultation for reducing pollutants and toxins that affect community health. Organizations that are among those who have been helpful with achieving our goals are the American Lung Association, Indian Health Services, Healthy Homes Network, Burn Wise Program, and the Michigan Department of Environmental Quality. Networking with other tribal air programs, attending ITEP trainings, and joining the National Tribal Air Association has been invaluable to the growth of the AQP.

KBIC AQP continues building capacity and awaits the final approval of our Air and Water TAS applications. Our involvement in air permitting, compliance, rulemaking, and pollution abatement concerning air quality are vital to the sovereignty and health of our Tribal community.



The KBIC Air Quality Program link can be found on the KBIC Natural Resources page:
<http://nrd.kbic-nsn.gov/air-quality>.

Keweenaw Bay, Lake Superior



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

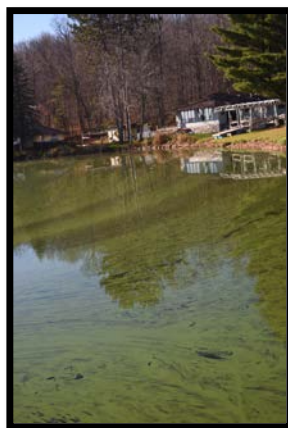
Climate change poses a serious threat to two-story cold-water fisheries found on the Lac Courte Oreilles Reservation. Severe storm events, coupled with warmer temperatures, have increased nutrient loading; and subsequent algal productivity has led to significant reductions in the oxythermal (cold water and oxygen) habitat cisco and lake whitefish require for survival.

Over the past 20 years, studies have shown that Big Lac Courte Oreilles Lake (Big LCO), which is the 8th largest natural drainage lake in the state of Wisconsin, and only 1 of 5 inland lakes in the state left with both cisco and lake whitefish present, is experiencing degraded water quality. The presence of cisco and whitefish are on the brink of extinction in the watershed.

The largest Salmonidae fish kill ever documented in Big LCO occurred in 2016. Hundreds of cisco and lake whitefish were found floating, or washed up on shore. Water profiling data by LCO staff revealed no suitable oxythermal habitat in the entire water column of the lake for these two species.

The Lac Courte Oreilles Tribe is working effectively with the top limnological experts in the Midwest, and has formed alliances with each lake association in the watershed. Education of lake shore owners on buffering their shorelines, zoning of impervious services and improved agricultural practices in the watershed are key steps for the survival of this unique resource.

Editor's Note: When a fish die off event occurs, this can negatively impact air quality due to biological contaminants from the decaying fish. They become a breeding ground for bacteria that could potentially become airborne. Researchers from University of Michigan (Andrew Ault and Kerri Pratt) have discovered that biological material from algal blooms can become ejected into the air when waves break against the shoreline. This can subject people to exposure outside of contact with the algae infested water.



Algal bloom on Big LCO



Dead whitefish on Big LCO



Lac du Flambeau Band of Lake Superior Chippewa Indians

Vacant – Air Quality/Energy Program Coordinator

Program in Existence since – 2008

Program Projects – Energy Upgrades, Climate Change Resiliency

Planning, IAQ, Education and Outreach

Location – Lac du Flambeau, WI

Giinawind, gakina awiia o'omaa Waaswaaganing, gi ga wiikajitoomin da aabajitooyang ga bagidinigaadeg omaa chi weweni, dash gawiin niibowa gegoo giwii ondinaasiimin, bakaan ingoji. Gishpin o'odoodamang, weweni dash gi wii manaaajitoomin gid akiiminaan. Minawaa gaawiin ispagindesinoon megwaa bimaadiziyang.~Ozzawaagosh 2012

“To preserve, protect and enhance the natural environment for the Lac du Flambeau Tribal way of life.”

Energy Planning Initiatives:

The Lac du Flambeau Band of Chippewa is one of the founding Tribes of the Midwest Tribal Energy Association (MTERA). MTERA's mission is: 'To empower Midwest Tribes to manage energy resources through collective action'. Environmental responsibility is at the forefront of what we stand for. Lac du Flambeau continues to participate in planning and action through this organization; however, lack the funding resources to support designated staff and sustain an energy program.

Climate Adaptation and Resiliency Planning:

As part of our responsibility to ensure clean land, water, and air for seven generations, the Lac du Flambeau Tribe is actively producing a Climate Resilience Plan. Included in the plan will be vulnerability assessments, energy and emission reduction assessments, adaptation valuations and ultimately a plan to ensure the resilience of the Lac du Flambeau community. We will be updating our energy plans as well as other plan under this umbrella. This is a comprehensive project that will lead to potential air quality monitoring and emissions reduction throughout the Tribe and Reservation. Future funding for re-initiating an Air Program and TAS for Air quality will be pursued and resources will be needed.

Indoor Air Quality:

Our Tribe is dealing with various indoor air issues including synthetic drug, meth, tobacco use to mold, wood smoke and poor ventilation issues. The most vulnerable populations of our children and elderly being most impacted. Some of the homes affected by the synthetic and meth smoke are costly to renovate and remediate. We have stepped up the monitoring and housing inspections as well as outreach education. However, there is not enough resources to do so.



Pokegama Lake Sunset





Lac Vieux Desert Band of Lake Superior Chippewa Indians

Beth Schrader – Environmental Officer

Program in Existence – 2015

Program Projects – IAQ

Location – LVD Reservation, Watersmett, Michigan

The Lac Vieux Desert Band of Lake Superior Chippewa Indians is a federally recognized Indian Tribe located in the Upper Peninsula of Michigan, near the Wisconsin boarder. Lac Vieux Desert has 749 enrolled members. The Reservation is composed of 1140 acres of fee land and 339 acre held in trust by the United States Government for the community. The 9-member council is an elected body, whom is selected through the election process to govern the Tribe.

The Lac Vieux Desert Environmental Department has recently completed both Level 1 and 2 indoor air quality training. Some homes have been assessed for indoor air issues, but it is still a new concept for Band Members. At the upcoming health fair, we will provide outreach and education to the Band Members on indoor air quality.

Some common concerns with in the Tribe include; sickness among youth and adults, mold issues within homes, and radon. The Tribe has tested for radon in the past through the Housing Department, however a new test done needs to be on all Tribal homes.



New hoop house project for a year round garden to promote food sovereignty, healthy eating and lifestyles.



Leech Lake Band of Ojibwe

Carma Huseby – Air Quality Specialist

Brandy Toft – Environmental Deputy Director

Program in Existence since – 2001

Program Projects – Hg (wet, litter, speciation), IAQ, Met, PM_{2.5}, Rn, Diesel, Toxics, Solar, Permits/Rules, Mining, Sustainability, Forecasting, etc...

Location – north central Minnesota, 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, cultural and trust resources within the Reservation's 865,000 acres.

The LLAP continues to manage ambient air monitoring sites where we collect background data for Hg (NADP wet deposition, leaf litter, adding AMNet in 2018), PM_{2.5} and meteorology. The LLAP BAM-1020 Continuous Particulate Monitor site officially went online January 2018. The system was linked to the MN Pollution Control Agency's network. The BAM has been operating successfully and Reservation residents are able to view live data from the new monitoring station by visiting: <https://www.pca.state.mn.us/air/current-air-quality>. LLBO is also part of the MPCA forecasting network. These two venues provide Tribal Members with real time information to allow them to make better health choices based on the air quality. Collaboration with the MPCA has been beneficial for both entities. MPCA has provided technical assistance, remote data collection and QA/QC. Leech Lake's monitor provides data and fulfills a data gap that Leech Lake has had concerns about for years. Leech Lake has led the state in PM_{2.5} levels nine times in 2018 which validated Leech Lake's claims of needing a monitor here.

The LLAP continues sustainability efforts and has successfully completed a 200Kw solar community garden for low-income Tribal Members. We are nearing the end of a 22 building Guaranteed Energy Savings Project saves \$276,000 in energy savings and 2,030 metric tons of GHG emissions *per year*. LLBO is also a member of Midwest Tribal Energy Resources Assoc.

Other work in 2018 continues to protect and maintain LLBO's air quality as Leech Lake is surrounded by 24 Title V facilities of varying industries: coal fired EGUs, wood/paper, waste incinerators, natural gas compressor stations, and six mining facilities clustered within our 1855 Ceded Territory. The Reservation has approximately 68 minor sources that exist within its 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 upon them. LLBO received TAS for CAA 105, 505a in October 2007.

LLAP is engaged on local, regional, and national venues (NTAA Vice-Chair), TAMS, and shares that information in the form of data, education, and outreach to and for Indian Country.

Currently, the LLAP is funded by an Air Media PPG, combining our 105 and Radon grants. The LLAP looks forward to building and expanding capacity to better serve LLBO and working with partners to leverage resources.

Minneapolis-St. Paul Real-time Air Quality Reporting Page

Forecast | Real-time Data | Air Quality Maps | Monitoring Site Map | Air Quality This Year

Real-time Data: January 4, 2018 12PM (CST)

Site Name	County	Current PM _{2.5} AQI	Max PM _{2.5} AQI (CST)
Apple Valley	Dakota	46	52 at 8AM
Arden	Anoka	35	47 at 12PM
Balsam	Crow Wing	36	63 at 8AM
DeSoto Lakes	Becker	16	20 at 8AM
Elly	Lake	0	23 at 7AM
Fargo, ND	Cass	22	25 at 8AM
Grand Lake	Carlton	21	25 at 8AM
Grand Portage	Cook	23	40 at 7AM
LACROSSE, WI	Lake	23	40 at 7AM
Leech Lake - Near Road	Dakota	53	53 at 10PM
Leech Lake Nation, Cass Lake	Cass	91	142 at 8AM
Marquette	Lake	23	40 at 7AM
Minneapolis - Downtown	Hennepin	36	37 at 7AM
Minneapolis - Near Road	Hennepin	57	57 at 12PM
Minneapolis - Phillips	Hennepin	46	48 at 12PM
Red Lake Nation	Beltrami	60	76 at 8AM
Shoshone	Olmsted	64	55 at 7AM
St. Cloud	Stearns	17	19 at 8AM
St. Michael	Wright	22	27 at 8AM
St. Paul Harding H.S.	Ramsey	36	50 at 8AM
Virginia	St. Louis	23	24 at 8AM
West Duluth	St. Louis	20	29 at 10PM

MPCA PM_{2.5} website,
LLBO highest in state
at 142

LLAP's PM_{2.5} BAM





Little River Band of Ottawa Indians

Thomas Shepard – Air Quality Specialist
 Allison Smart – Environmental Coordinator
 Program in Existence since – 2005
 Program Projects – O₃, PM_{2.5}, 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 EPA. LRBOI continues to monitor ozone to gather additional information and to support trend analysis.

LRBOI operates a PM_{2.5} monitoring station. LRBOI has an agreement with the State of Michigan for air monitoring assistance with laboratory and quality control services. This collaborative relationship benefits all involved. The Tribe hopes this relationship continues well into the future.

LRBOI is in the process of pursuing Treatment as State (TAS) for CAA 105. LRBOI will continue to educate Tribal Members and the general public to provide outreach on air quality-related issues. The Tribe plans to expand the Air Program to include an Indoor Air Quality (IAQ) Monitoring Program. The Tribe will provide ambient and indoor air quality education and outreach for Tribal and non-Tribal citizens. This increased awareness will help them better understand air quality issues and enable them to make more informed quality of life decisions

LRBOI's Home Page
www.lrboi-nsn.gov

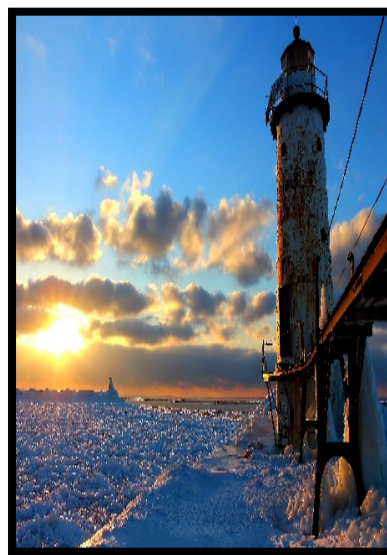
Working to improve air quality for our Tribe, our community and our world.



LRBOI's Air Monitoring Station



Manistee Harbor



North Manistee Harbor Lighthouse



Little Traverse Bay Bands of Odawa Indians

Jon Mauchmar – Environmental Specialist – Air Quality

Program in Existence since – 2004

Program Projects – IAQ Education/Outreach, Renewable Energy, Energy Efficiency, Capacity Building

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 home 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 2007-2008, from 2009-2011 collected PM_{2.5} data and ozone monitoring occurred for the 2012 season. An updated EI was completed in 2013.

LTBB continues to expand emission cutting efforts through solar energy development. Energy efficiency and renewable energy 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. LTBB's second solar array was installed over the summer. The new array is a 30kW system and located at the Natural Resources Department (NRD) building. The array will offset about 40% of the energy demand for the NRD building and put a nearby pole barn at net-zero. This prevents the emission of approximately 825,000 tons of carbon dioxide in the system's first 25 years of operation.

Indoor air quality (IAQ) will be receiving more focus in the next few years. The goal is reducing asthma and allergies in the LTBB community. We currently offer free short-term radon testing kits and expanded the program to offer IAQ home assessments. The Air Quality Program worked with EPA Region 5, Indian Health Services, the Institute for Tribal Environmental Professionals, the LTBB Health Department, and other Region 5 Tribes to build capacity for a LTBB IAQ Assessment Program. Environmental Services staff attended the LTBB annual Health Fair to promote awareness of the importance of IAQ, how to maintain IAQ, and promote the upcoming IAQ Assessment Program.



LTBB's 30 kW solar array at the Natural Resources Department Office





Lower Sioux Community

Deb Dirlam – Director, Office of the Environment

Justin Wabasha – Environmental Technician

Department in Existence since – Since 1992

Program Projects – IAQ, Ambient Air Quality, Monitoring, 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. 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 and eight duplex rental units. The regional land use is predominantly agricultural and several Tribal Members hold assignments to farm.

The Lower Sioux Community does not currently have an Air Grant through EPA. However, the Lower Sioux Office of the Environment (OE) staff is involved in Air Quality-related activities such as providing education and outreach to the Community Members and Lower Sioux Departments. OE staff and Housing staff completed the work with the American Lung Association in conducting in-home assessments of children with asthma. The Lower Sioux Community continues to coordinate the Renewable Energy Advisory Committee (established in 2016) to assist in Program development including advising on topics such as Climate Resiliency. The LSIC completed a solar feasibility study in February 2018 that serves as a strategic plan for incorporating solar energy in the Community. The plan compared the benefits of various projects for both PV solar electric systems and solar wall heating systems. Additionally, OE staff are currently developing a Climate Adaptation Plan with expectations of completion in Spring 2019. This past year OE staff explored the feasibility of the development of an air monitoring station by working with air quality specialists from other Tribes and ITEP. Future work will include working towards ambient air monitoring site determination and equipment set-up.

Air Projects/Programs for FY 2019 - 2020

- Open Burning, Barrel Burning, Fire Prevention, Permitting
- Mold/Moisture technical assistance to Housing working with residences affected by flooding
- Education on Carbon Monoxide, Mold/Moisture, Asbestos, Pests, Weatherization, and Radon.





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, IAQ, Alternative Energy, Radon, Climate Change Adaptation Planning

Location – Shleboville, MI

The Match-E-Be-Nash-She-Wish Band of Potawatomi Indians (Gun Lake Tribe) is a federally recognized Indian Tribe located in southwest Michigan, approximately 25 miles south of Grand Rapids. The Gun Lake Tribe has 573 enrolled members. The Reservation is composed of 603 acres held in trust by the United States Government for the community and possesses no exterior boundary.

The Gun Lake Tribe continues to implement the Air Quality/Quality Assurance Plan that provides indoor air quality audits to improve the overall environmental health of Tribal citizenry. The Indoor Air Quality Program, which is funded by the GAP, includes the following testing parameters: particulate matter, relative humidity/dew point, mold/radon, moisture testing throughout the home and infrared readings. A general home health assessment is reported to each citizen at the conclusion of these audit. The Tribe continues to gain training and air quality equipment in order grow capacities.

The Tribe continues to implement the Climate Change Adaptation Plan which was adopted in 2015. This includes low-emission/hybrid vehicle purchasing policies, solar feasibility studies and increasing energy efficiency practices within Tribally owned buildings. In 2018, the Tribe has retrofitted the entire Luella Collins Community Center with LED lighting.

The Tribe is working with the USDA Natural Resource Conservation Department to install a soil climate analysis station (SCAN) at the Jijak property. The SCAN station will be utilized to address climate change adaptation for the Tribe's garden and will also be utilized for an educational tool at Jijak Youth Camp.



SCAN monitoring station





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 (2000 U.S. Census).

The Menominee Tribe originally started the Air Program in 2000 to monitor for acid rain and mercury. The Program was funded by a Region5 103 air grant. We participated with the National Atmospheric Deposition Network (NADP) 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 for mercury until March 2010. Mercury was continued longer because we filled a gap within the state for collection. One of the reasons the 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. There is a need for continued monitoring of indoor air quality, but at this time there is no funding or staff.

Currently there is not an 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.



*West Branch of
the Wolf River*





Mille Lacs Band of Ojibwe

Charles Jirô Lippert – Air Quality Specialist

Program in Existence since – 1996

Program Projects – O₃, IAQ

Location – East/Central MN

The Tribe began its Air Quality Program in September of 1996 with the constitutional reform of the Mille Lacs Band of Ojibwe. In the beginning, our elders knew of what the Air Program should address and made it part of the Tribe's statutes, but had no way of addressing our concerns, only hoping our vision would come together in the future. At the same time, Minnesota was under pressure to provide a determination for CO and asked for partnership with the Tribe. From this partnership, the Tribe eventually received assistance from CAA103 grant funding through EPA. From our humble beginnings of CO monitoring, we moved to monitor for PM₁₀, then for PM_{2.5} and O₃, 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_{2.5} and Hg. But due to significant funding cutbacks, many of the pollutant monitoring had to cease. However, the Tribe's Air Quality Program continues to monitor for O₃, and other air pollutants under a partnership with the Minnesota Pollution Control Agency (MPCA) whenever we access specialty research funding. In addition to air pollutant monitoring, we assess PSD air permits proposed to be issued by MPCA that may impact our peoples and natural resources, work on air quality aspects of pollution prevention, energy efficiency and material management, sustainability projects for energy and food independence, and waste reduction. 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.

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 Communities of Minneapolis, MN, from 2009–2012. Though those efforts and additional needs identified, MPCA, Minnesota Department of Health, and the Tribe's Air Quality Program conducted a PAH study in the Phillips Communities, from 2013–2016. Since 2009, Tribe has been working with Environmental Initiative's Clean Air Minnesota, and MPCA's Commissioner Environmental Justice Task-force 2014–2016 to guide the State on its future air quality policies. The Tribe has Treatment as an Affected Sovereign status under CAA105 and 505(a)(2) from EPA since 2017, will be seeking redesignation as Class I air-shed, and restore our past monitoring projects to characterize, model and inventory air pollutants affecting our's air-shed. Applications for other funding sources have been successfully submitted but were not selected to help restore past monitoring projects for the purposes of supporting the near-future Class I redesignation.

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

Chief Executive: Melanie Benjamin
Commissioner of Natural Resources: Bradley E. Harrington
Director of Environmental Programs: Perry Bunting



Minnesota Chippewa Tribe

Michael Northbird - Environmental Program Manager/GAP Coordinator
Program in Existence since – 2015

Program Projects – Capacity Assistance

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 a Federally Recognized Tribe located throughout northern Minnesota, is a union of six (6) constituent Bands with Reservations, adhering to the MCT Constitution and was formed as 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 Band 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) provides capacity assistance as needed for core environmental programs of the Bands that utilize EPA grants. The MCT EP develops projects to assist in the protection of MCT land both on and off the 6 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 Bands that make up the Minnesota Chippewa Tribe. The protection of air, water, and land resources are a priority for the Tribe. The MCT EP assesses 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. GIS of MCT Trust Land, ongoing or completed projects, and an inventory of resources can be accessed via an interactive map online. The current grant focus has been HHW Waste-Site Worker training and HHW collection, outreach and education

The MCT EP is committed to assisting constituent Band air programs for the benefit of the Tribe. Through technical assistance from the Bands, EPA and other Tribes, the MCT Tribal Executive Committee determines what further action(s) will be implemented when necessary. Once a determination has been made, then the MCT EP applies for the specific resources necessary to ensure all actions are taken, in order to protect air quality under MCT jurisdiction.





Nottawaseppi Huron Band of the Potawatomi

John Rodwan – Environmental Director

Amy Boetcher – Environmental Specialist

Program in Existence since – 2001

Program Projects – Ambient Air, Emission Inventory, Radon Testing

Location – Pine Creek Reservation, Fulton, Michigan

The NHBP Air Program serves approximately 1,600 Tribal Members and is located on the Pine Creek Reservation in southwest Michigan. Our Air Program goals for last year were to maintain the radon program and continue to nurture our nascent Ambient Air Program. We do not receive any air-specific funding. We run eligible components of our Program with EPA GAP funds, and the rest with Tribal general funds. The Radon Program is still on our radar, but has shifted to the background of our Air Program efforts. Ambient air efforts are well underway including: initiation of our emissions inventory (training and inventory preparation plan), initial screenings of particulate matter, and continued investigation into the nearby oil and gas well developments in the Albion Scipio Oil Field.

This year, we initiated research screenings for nearby oil and gas developments around the Albion-Scipio Trend, particularly in Calhoun County, Michigan. There are currently 15,500 active oil and gas wells in the State. One to five percent of residents in Michigan live within 1 mile of an active oil and/or gas well. Common pollutants reported on/near these well sites include: benzene, VOCs, and ozone while other potential pollutants include PM, NO_x, CO and sometimes hydrogen sulfide. This effort pulled in staff from outside our Air Program, including our GIS Program Coordinator who is a licensed drone pilot. Together, we initiated:

- Windshield surveys of oil/gas wells and storage pads near NHBP Properties,
- Continued historical research on the Albion Scipio oil/gas field and its exploration in sw MI,
- Drone flights in the active drilling area to examine its extent and potential impacts,
- Creation of GIS maps of wells and related activities (transmission pipelines),
- Sharing information about our investigation of potential impacts from drilling developments,
- Coordination with staff from MDEQ's Oil & Gas Program to obtain data on permitted wells and operations in our area. Many well locations, test wells, and type of activity (injection well, exploration well, active/inactive, etc.) are available on the State's website. We learned that oil companies requested confidentiality for some wells, and so they do not appear on the public website; however, is data are available if requested directly from MDEQ staff.

After learning more about potential air pollutants from oil/gas developments, we discovered the PurpleAir particulate matter monitor. These small sensors gave us an affordable and simple way to screen PM_{2.5} and PM₁₀. We were intrigued when our PM monitor recorded a spike in particulate matter shortly after the California fires. Being embedded in an agricultural area, we were hoping to explore particulate matter levels during the manuring season; but unfortunately we haven't been monitoring levels since late August 2018 due to a recall notice for the power cord. When we received a new power cord, we learned we were then unable to use it because of network security issues. We are working closely with our IT Department to find a way to collect the data we are interested in, while not breaching Tribal network security through the emerging issue of citizen science in the "internet of things".

Our goals for 2019 are to perform our routine five year radon screening for all government-managed buildings, resolve our PM monitor IT network security issue, complete our emissions inventory draft, and continue our efforts exploring developments and impacts from the area oil and gas wells.



Oneida Tribe of Indians of Wisconsin

Jeff Mears - Environmental Area Manager

Program in Existence since – 1988 Environmental, Health & Safety

Division established

Program Projects – Climate Change Adaption, Energy Conservation

Location – Oneida, Wisconsin

In September 2018, Oneida Nation held a workshop for community members, facility staff, and leadership to think about Oneida's energy future. Communities rely on energy for safety, operations, transportation, and many other modern-day activities. Access to energy, on the other hand, can be variable and expensive. That's why Strategic Energy Planning (SEP) at the community scale is becoming an increasingly important for Tribes. SEP is an opportunity for stakeholders to come together to talk about the current energy situation and think about how the Tribe should move forward.

The Office of Indian Energy (OIE) has long been advertising SEP. When a Tribe puts in a request for SEP technical assistance, they will be contacted by a National Renewable Energy Laboratory (NREL) representative to discuss the scope of the request. After that, the workshop is scheduled and the participants are invited. To get the most out of the workshop, attendees should represent a fairly broad range of energy users in the community.

During the 2-day workshop in Oneida, NREL facilitated discussion. We talked about the steps to create a good energy plan. NREL also described the technical, political opportunities, and challenges that the Tribe might want to consider. A good chunk of time was devoted to an open discussion about the Tribe's needs. There was plenty of opportunity for participants to voice their concerns and their ideas. The goal of the workshop was to walk away with an energy vision, project goals, and an action plan.

Another organization that participated in Oneida's SEP is the Midwest Tribal Energy Resources Association (MTERA). MTERA was created in 2014. In recent years it has connected with a number of native communities to assist with their energy planning efforts. At this time, MTERA is partnering with OIE to offer its services to Tribes in Michigan, Minnesota, Iowa, and Wisconsin. Energy audits, resource assessments, project feasibility, and the SEP process are some of the services that MTERA can assist with.

If your community desires to take a close look at how energy is acquired and used, investigate these services. You may have access to a local opportunity that you're not aware of. The technical assistance is free and available to all recognized Tribes.

Visit these websites to learn more about.....

- SEP <https://www.energy.gov/indianenergy/strategic-energy-planning>
- Technical Assistance <https://www.energy.gov/indianenergy/technical-assistance>
- MTERA <https://www.mtera.org/>



A good mind. A good heart. A strong fire.



Pokagon Band of Potawatomi Indians

Jennifer Kanine - Department of Natural Resources Director

Kyle Boone – Environmental Specialist

Program in Existence since - 2000

Program Projects – Comprehensive Planning, IAQ, EI, Mercury,
Alternative Energy, Climate Change Planning

Location – Dowagiac, Michigan

The Pokagon Band of Potawatomi Indians (Pokagon Band) was restored to federal Tribal status through congressional act on September 21, 1994. Instead of a Reservation, the Pokagon Band was mandated a service area that consists of four (4) counties in the southwest lower Michigan and six (6) 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 quality up-front, rather than confront issues later. However, there are times when historic property uses on recent land acquisitions influence actions taken on those properties.

In 2018, the Pokagon Band Department of Natural Resources (PBDNR) has undertaken multiple projects to protect and monitor air quality in the service area including; monitoring indoor air quality in tribally owned buildings, using proper mitigation methods if indoor air quality is found to be unhealthy, and restarting work on an emissions inventory (EI). Pokagon Band has acquired multiple parcels of land with structures previously built on the parcel. Before any structure is used as Tribal housing or office space, the Band monitors indoor air quality to ensure the structure can be safely occupied. If it is deemed that the structure cannot be safely occupied, the Band will schedule the structure to be demolished. In 2018, the Band demolished nine buildings that were deemed uninhabitable. Asbestos was found in two buildings and PBDNR ensured that demolition of asbestos containing materials (ACM) followed federal regulations to prevent release of asbestos into the environment. Moreover, PBDNR confirmed that ACM were properly disposed of after demolition. PBDNR also restarted the process of doing a Level 4 EI for the Band's service area. Technical difficulties experienced in early 2018 caused PBDNR to encounter a setback in progress made. Currently, all necessary software and data have been re-obtained and staff is pursuing further training to restart and finish the EI.

PBDNR has also been actively reviewing prevention of significant deterioration (PSD) permits to ensure that outdoor air quality in the Band's service area is not degraded. Future endeavors regarding air quality include the installation of a weather station with air monitoring, possible installation of outdoor air quality monitors given the conclusions of an EI, as well as continuing to review indoor air quality issues as the Band secures new properties.





Prairie Island Indian Community

Vacant – Air Quality Specialist

Gabe Miller, Environmental Programs Manager

Program in Existence – June 2014 to October 2017

Program Projects – EI, IAQ, Outreach, Radiological Monitoring

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 with a variety of land uses and covers.

In 2014, PIIC established an Air Quality Program under the EPA CAA 103 grant funding. Since then, projects implemented under this funding include indoor air quality inspections, radon testing, and outreach/education. Additionally, a Level 4 Emissions Inventory was completed and an air quality flag program has been in operation for over a year!

In 2018, projects related to the Air Program included outreach for the community and general public including school-group presentations. We have also been in communication with Minnesota Pollution Control Agency and other agencies to determine the potential for hosting a monitor to be included in the state-wide air quality index program.

The Tribe is also involved in monitoring air as it relates to environmental radiation. Xcel Energy's Prairie Island Nuclear Generating Plant is located just three blocks away from the community with spent fuel casks storage on-site, which 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 National Analytical Radiation Environmental Laboratory (NAREL) since 1993.

Tribal land is located in a high risk zone for radon and has moisture problems. Testing for radon in the community homes and combating mold growth has been important. Acquiring funding for remediating issues would be helpful.

Staff turn-over, funding cuts through the CAA 103 Program, and differing views on the direction of the program by Tribal administration, has made continuing the Air Program a challenge. The Air Program was determined by the Tribe in Fall 2017 to be low priority and was terminated. Despite this, the Land and Environment Department continues Air Program work as much as we are able: continuing radiological sampling, radon testing, and ambient air quality monitoring and reporting for community health.

Right: ETS prevention near playground Left: PIIC Bison





Red Cliff Band of Lake Superior Chippewa

Ernie Grooms - Air Program Manager

Linda Nguyen – Environmental Director

Program in Existence since – 2010

Program Projects – IAQ, EI, Energy Conservation, PM_{2.5} study

Location – Bayfield, WI

The Red Cliff Band of Lake Superior Chippewa (Band) is located on the Bayfield peninsula in the Northern most point of Wisconsin. We are surrounded on three sides by Lake Superior and enjoy a relatively undeveloped forest of hardwood and pine to our south. As we are located so far to the north the lack of heavy industry makes our area not only unique, but 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 Band to protect and maintain ALL aspects of our environment while promoting responsible future development.

The Band's Air Quality Program is in its eighth year and housed under the Treaty Natural Resources Division/Environmental Department. Program objectives include completion of indoor air quality (IAQ) assessments for residential, office, and school buildings located within tribal boundaries. The proper management of moisture, air flow, and insulation is a benefit to both health and energy costs.

The Band's Health Clinic recognizes the increase of asthma and allergies within our community, especially among our children, therefore the Air Quality Program is taking its first steps into the ambient air field. During this study, we will be monitoring for PM_{2.5} to track levels as they travel through the Red Cliff Reservation using the Met One E-Sampler Light Scatter Continuous Aerosol Monitor. This equipment will provide data necessary to aid in determining particulate sources that may affect members with respiratory sensitivity/asthma, especially during our heating seasons, as many Tribal Members (and those in surrounding areas) still utilize wood stoves to heat their homes. As particulate matter has been determined to be the largest pollution contributor by the completion of a Level 3 emissions inventory, the data provided by this study will determine if continued particulate monitoring should take place, whether it be a continued study, or if regulatory monitoring should be considered.

The Band is also very interested in attaining ambient air quality standards. The first Level 3 emissions inventory was completed and approved by EPA in 2016. The Program has received continued funding through CAA 103 since 2010. Funding ensures the Band's participation in local and regional issues, while furthering our ability to protect our people and our way of life.



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



Red Lake Band of Chippewa Indians

Jennifer Malinski – Environmental Specialist

Program in Existence since – 2007

Program Projects – CASTNET, PM_{2.5}, Met, Hg Litterfall, EI, Outreach, Smoke Management

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 just over 12,000 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 the spring of 2009 secured CAA 103 funding. With the approval of its air TAS application, the Program transitioned to CAA 105 funding in 2014. In 2016, the CAA 105 funding was incorporated into a Performance Partnership Grant (PPG).

For the last few years, much of the work done by the Red Lake Air Quality Program has focused on ambient air quality. Since 2014, the Program has operated and maintained a BAM 1020 PM_{2.5} continuous monitor with assistance from the Minnesota Pollution Control Agency (MPCA) and has operated and maintained a small footprint Clean Air Status and Trends Network (CASTNET) site. In 2015, ammonia monitoring began with the Ammonia Monitoring Network (AMoN), co-located with the CASTNET site. Additionally, the Air Program has completed its fourth year of leaf litter sampling as part of the Litterfall Mercury Project with the National Atmospheric Deposition Program (NADP).

Other ambient air related projects completed recently include an updated Emissions Inventory (EI), and a Tribal Smoke Management Plan (SMP). Active projects currently include a Greenhouse Gas EI and community outreach relating to burning of household trash.

Although ambient air quality has been the main focus of the Air Quality Program recently, indoor air quality (IAQ) remains a concern. The program offers basic IAQ home assessments of homes on the Reservation, as requested. Also, the Air Quality Program is planning to apply for the Tribal Radon Grant with the next round of funding. This funding has not been pursued for the last several years due to difficulty acquiring the required high in-kind match.

We are always looking for partnership opportunities that allow us to improve indoor and outdoor air quality for the people of Red Lake.





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

In wake of the 2017 Isabella County flood, situations arose around the county and the Isabella Reservation that made the Saginaw Chippewa Indian Tribe (SCIT) take a second look at their existing practices. The affected area is not a floodplain, so the extent of the flooding experienced was rare and the Tribe took note of events both on and off the Reservation for future disaster preparedness planning.

Record retention quickly became an issue for the Tribe in the midst of the flood due to flooding in the lower level of the Tribal Operations building that housed hardcopy records; compromising some of the stored documents. Indoor air quality was tested due to complaints of a mold and mildew smell. The decision was made to no longer store documents in the lower level of the Tribal Operations building and remove all paper, equipment, carpet and drywall; as well as relocating staff.

Another concern that arose around the county from the extensive flooding was residential propane tanks floating away from homes. The Tribe is currently working to find a solution to this problem should there be a similar event in the future.

The severity of the flooding event was unfortunate but the SCIT Environmental Team made the most of this unfortunate situation by seeing how the current practices being used by the Tribe held up to these sort of extreme conditions. All notable issues were addressed and added to the Climate Resilient Waste Management Plan that the Tribe was working on at the time. The Saginaw Chippewa Indian Tribe was the first in Region 5 to submit their plan using the EPA's Waste Management Planning Tool.

The Saginaw Chippewa Indian Tribe and EPA Region 5 co-hosted a Disaster Debris Management Conference for Tribes in Mount Pleasant, MI, at the Soaring Eagle Casino and Resort in August. There were many Federal, State, and County partners in attendance to discuss what can be done before, during, and after a disastrous event for cleanup and assistance. The importance of having Mutual Aid Agreements in place and Waste Management Plans completed in preparation for emergency situations was stressed so Tribes are better prepared for these events.



Disaster debris
training August 2018





Sault Ste. Marie Tribe of Chippewa Indians

Robin Bouschor – Environmental Specialist

Program in Existence since – 2016

Program Projects – IAQ, Air Toxics, VW Diesel, Outreach, Ambient Air Monitoring

Location - Sault Ste. Marie, Michigan

The Sault Tribe of Chippewa Indians (Sault Tribe) is located in the eastern Upper Peninsula of Michigan. The Sault Tribe Environmental Program has been undergoing steady growth in its capacity to take on environmental regulation, recently adding capacity for air quality work, and the Air Program is currently carrying out our third project with CAA 103 funding.

To help Tribal Members with indoor air quality (IAQ) issues the Air Program developed a QAPP to investigate IAQ complaints. In addition to this the Program will be holding two workshops for Tribal staff/community members on common IAQ topics. To reach more community members air quality informative articles are published in the Tribal newspaper and on the Department's social media.

The Program is trying to identify and address air toxics issues for near Tribal land by conducting a risk characterization on Essar Steel in Sault Sainte Marie, Ontario our sister city. This is a unique project since it deals with air issues along an international border.

Work continues with Intertribal Council of Michigan (ITCM) to interpret their air monitoring data with respect to its impacts on the Sault Tribe Reservation. Sault Tribe is helping with the air monitoring site on top of Lake Superior State University Cisler Center monitoring PM_{2.5} and ozone. The plan is to have the Program's Air Quality Specialist trained on how to operate the equipment and help run the site along with ITCMI.

The Sault Tribe Environmental Department held an "Honoring Mother Earth" event in September. The event was a success; it boasted raffle prizes, kid's activities, several local vendors, three sister's garden, compost site, rain barrel demonstration, and educational displays. The Air Quality Specialist was able to give away humidity meters to people that participated in a mock air quality assessment of the Department's building. In addition the Department also hosted a public outreach booth at the Sault Tribes pow wow in Sault Sainte Marie, Michigan.

The Department's Air Quality Specialist recently attended the ITEP New Source Review and Title V training in New Mexico. With this training the Program will be able to start commenting on air quality permits that would affect the 1836 Ceded Territory.



*Opening
Song at
Honoring
Mother
Earth Fair.*





Shakopee Mdewakanton Sioux Community

Simeon Matthews – Industrial Hygienist

Steve Albrecht – 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 it has grown to include more than 4,200 acres of land in fee & trust, south of Minneapolis. In 2016 we introduced an Air Program component to our GAP work plan for the first time, and continued to grow that Program in 2018. We also joined the National Tribal Air Association (NTAA) in 2016; we rely on its network and frequent publications to stay informed and effectively protect our air quality. Some of our activities are described below and we plan to expand those in 2019.

IAQ

IAQ concerns at SMSC continue to include mold / mildew and radon. The Tribal Healthy Homes Network, ITEP, and our GAP grant have been big sources of support as we work to address those concerns. EPA approved our first Radon Measurement Quality Assurance Project Plan (QAPP) in 2017 and in 2019 we plan to incorporate radon testing into comprehensive home evaluations.

Reduced Electrical Utility Use

Solar panels, a wind turbine, and commercial buildings with geothermal heating & cooling have reduced electrical consumption from our grid's air polluting coal-fired, natural gas-fired, and nuclear power plants. In 2018 we continued transitioning to LED lighting in many areas; this reduces our electrical use further and eliminates the risk of mercury pollution from fluorescent lighting. We're currently investigating opportunities to increase our solar infrastructure also.

Composting

2018 set a new record for yard waste drop-offs from nearby residents. We began composting more of the food wastes from our Tribal farms, grocery store, and daycare center/ restaurant in 2016 and expanded that to other SMSC enterprises in 2018. These materials are recycled into compost at the SMSC Organics Recycling Facility, reducing the methane emissions (a potent greenhouse gas) of landfilled food waste.

NSR Minor Sources

From 2012-2017 the SMSC received several air permits under EPA's Tribal Minor New Source Review (NSR) program. The program allows us to evaluate air quality impacts at the earliest stages of construction planning, and its permits ensure that emission sources are maintained and monitored for the protection of our ambient air quality. The Tribe's first two Tier 4 emergency generators will be the cleanest-burning generators at SMSC when they begin operation, scheduled for late 2018.





Sokaogon Chippewa

Tina Van Zile – Environmental Programs Manager

Nathan Podany - Hydrologist

Program in Existence since – No formal program

Program Projects – Building CAA 103 program

Location – Mole Lake, Wisconsin

The Sokaogon Chippewa Community is located in northeastern Wisconsin and is known for its productive wild rice lake. Although small in acreage, the Sokaogon Reservation is home to pristine lakes, streams and forested wetlands.

Currently, the Sokaogon Environmental Department does not manage an Air Program. That being said, the Tribe is very aware of the need for clean air, both now and in the future. Therefore, the Tribe is committed to supporting initiatives that develop and promote clean air.

In the near future, the Tribe hopes to expand its Environmental Department to include an Air Program. Until then, the Tribe will continue to monitor, manage and protect their precious lands for future generations.



Ariel view of wild rice on Rice Lake





St. Croix Chippewa Indians of Wisconsin

Jamie Thompson– Environmental Specialist

Program in Existence since – 2004

Program Projects – Indoor and Ambient Air Quality

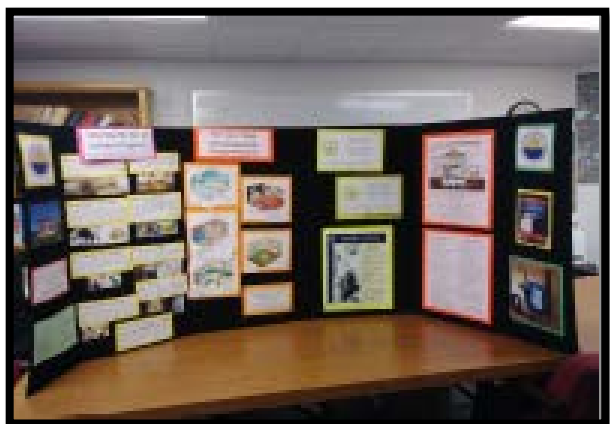
Location – Scattered throughout Burnett, Polk and Barron Counties, WI

Through the years the St. Croix Chippewa Indians of Wisconsin have received intermittent funding to maintain an Indoor Air Program and in the years that funding was not available, GAP funds were used to maintain basic services to Tribal Community Members. With the funding provided by EPA, St. Croix has been able to provide indoor air quality assessments and education to Tribal Members for several years now.

The Indoor Air Program continues to maintain a close relationship with our St. Croix Tribal Housing Authority, which has allowed a combination of resources and expertise to ultimately advance the Indoor Air Program with rehabilitation recommendations implemented by the Housing Authority. The main focus of the assessments is moisture and leak issues that result in mold concerns. As an outcome, staff is mainly focused on building science relating to home construction and maintenance. Several areas are periodically called upon for testing including CO, radon, VOC's, ETS, sewer gases, asthma triggers and pests. The Safety Team that includes Environmental, Housing Department and Clinic staff has continued to operate with excellent communication throughout.

As part of the St. Croix's Air Program, we inform Tribal Members with education and outreach focusing on creating healthy homes for St. Croix Communities. Each time we do a home inspection we give the resident a carbon monoxide detector and a healthy home packet. Included in this packet are numerous pamphlets and articles including but not limited to healthy home tips, mold prevention, asthma and outdoor air pollution information, bed bugs pamphlet, information on carbon monoxide, and secondhand tobacco smoke to name a few.

The CAA 103 funding has allowed growth of the Program by retention of qualified staff who serves as a resource for the St. Croix communities. Major focuses of the Air Quality Staff are involvement in active R5 initiatives such as: participation in regional dialogue on conference calls, attending regional meetings, performing home assessments and working cooperatively with the Tribal Housing Department to help rehabilitate homes and promote cleaner air for Tribal Members and employees.



Left – Table top health fair display. Below - Information given out in the healthy home packet and the carbon monoxide alarm.



Please visit the Department Website: <http://www.stcciw.com/epa>



Stockbridge-Munsee Community

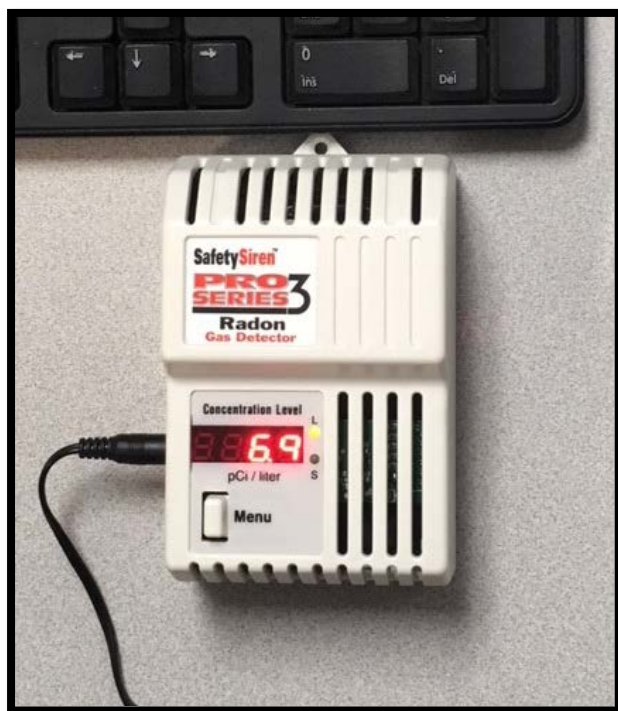
A Band of Mohican Indians

Greg Bunker – Environmental Department Manager

Program in Existence since – No formal program

Program Projects – IAQ, Develop IAQ Program

Location – Wisconsin, between Green Bay and Wausau



Indoor Air Quality

Progress has been made in the past year to mitigate indoor air quality challenges, however these have been in combating mold issues. We continue to face high radon in many homes and Tribal government office buildings. There are number of work sites that are above the EPA standard of 4.0 pCi/l. Renewed efforts to identify potential problems before they affect employee health are underway. Pictured here is a radon detector indicating high radon in one of these offices. There is a reluctance to invest more funding into old buildings when the Tribe hopes to build a new central office complex, however that leaves existing issues unresolved.

The Stockbridge-Munsee Tribe has fixed one large indoor air issue in 2018. This was a remediation of mold in the Tribal Council office buildings. We have also drafted new standard operating procedures (SOPs) for radon testing in both government owned facilities as well as Tribal homes. The Environmental Department is currently working with the Tribal Property and Equipment Department to coordinate monitoring and fixing of high radon in Tribal office buildings. These are sites where Tribal employees spent up to 2080 hours a year and this contribute to negative health impacts.

The Indian Environmental General Assistance Program Act (GAP) funding is critical to this effort. Currently we do not have an Air Program funded by specific air grants.





Upper Sioux (Dakota) Community ~ Pezihutazizi Oyate

Barbara Long– Environmental Director

Austin Hilbrands – Environmental Assistant

Program in Existence since – No formal program

Program Projects – none

Location – Granite Falls, MN

Currently the Upper Sioux Community (USC) Office of the Environment (OE) does not have an Air Quality Management Program. However, the OE's EPA Tribal Environmental Plan (ETEP) will include the initial stages of research and training to develop such a program starting spring 2019. Development of an Air Quality Monitoring Program is a major step and will provide current scientific data that can be utilized as a comparison across R5 Tribal entities. The obtained data will help us to understand, monitor and manage air quality within the active corridor of the USC Reservation.

Major Point Sources:

- Figure 1: Granite Falls Energy, LLC – Ethanol Plant: 3.71 miles from USC
- Figure 2: Southern Minnesota Beet Sugar Cooperative – Sugar Beet Plant: 16.40 miles from USC
- Figure 3: Hog Barn/s
- Feed Lot/s

Major Non-Point Sources:

- Figure 4: Highway 67 Corridor Traffic Thoroughfare
- Agriculture Chemical Applications

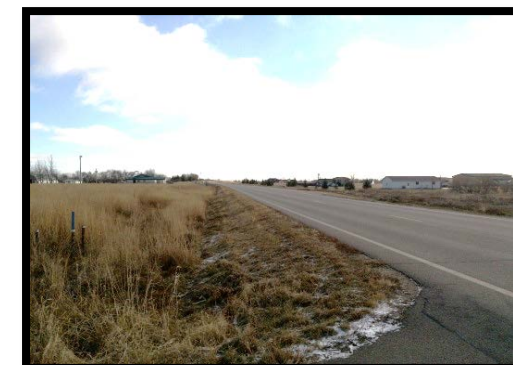


Above: Granite Falls Energy, LLC – Ethanol Plant



Above: Southern Minnesota Beet Sugar Coop

Below: Hog barn operation



Below: Highway 67 corridor traffic thoroughfare



White Earth Band of Ojibwe (Gaa-waababiganikaag)

Richard Jackson – GAP Coordinator
 Program in Existence since – No formal program
 Program Projects – Radon, Illegal dumping, IAQ
 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 Northwest Minnesota, was established in 1867 by a treaty with the United States Government and Mississippi Band 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 the Mahnomen County and portions of Becker and Clearwater Counties. The area includes five incorporated cities and five major villages.

The White Earth Natural Resources Department was established to protect, manage and enhance the resources of the Reservation and is responsible for daily management and monitoring. Indoor air quality, along with open burning are just a few areas that are tackled. While a formal Air Program is in the development stages, Environmental Staff are responsible to address air issues.

White Earth Programs Projects include:

- Radon testing
- Outreach and education on air and environmental issues
- Outreach on burn wise information
- Radon spreadsheet to show members the levels around White Earth.

Because clean air is of great importance to Tribal Members and Tribal Leadership, the White Earth Natural Resources Department will continue to educate and inform the public of concerns and issues related to air quality. White Earth is still pursuing funding for a full time Air Program, as of right now GAP is funding our air concerns on White Earth.





1854 Treaty Authority

Tyler Kaspar – Environmental Biologist
 Program in Existence – 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. The 1854 Treaty Authority looks to track air impacts from sources such as power generation units, mining and other industrial facilities. Mining has had a large impact to the 1854 Ceded Territory, with many projects ongoing and new projects being proposed. The 1854 Treaty Authority coordinates with federal and state agencies in 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. One of these activities is implementing the “*Climate Change Vulnerability Assessment and Adaptation Plan*” that was developed in partnership with the Bois Forte, Fond du Lac and Grand Portage Bands in 2016. A portion of the plan is dedicated to potential climate change impacts to air quality and identifies four focus areas (see below). As part of our plan implementation in 2018, we submitted formal comment letters regarding air quality concerns for EPA’s proposed Affordable Clean Energy (ACE) Rule and Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule.

AIR QUALITY FOCUS AREAS

Visibility:

may be impaired due to increasing load of pollutants (SO_2 , NO_x) and particulate matter ($\text{PM}_{2.5}$) from industrial sources and wildfires.

Ozone:

concentration may increase due to rising air temperature.

Extreme Heat Events:

may occur due to rising air temperature and humidity.

Acid Rain:

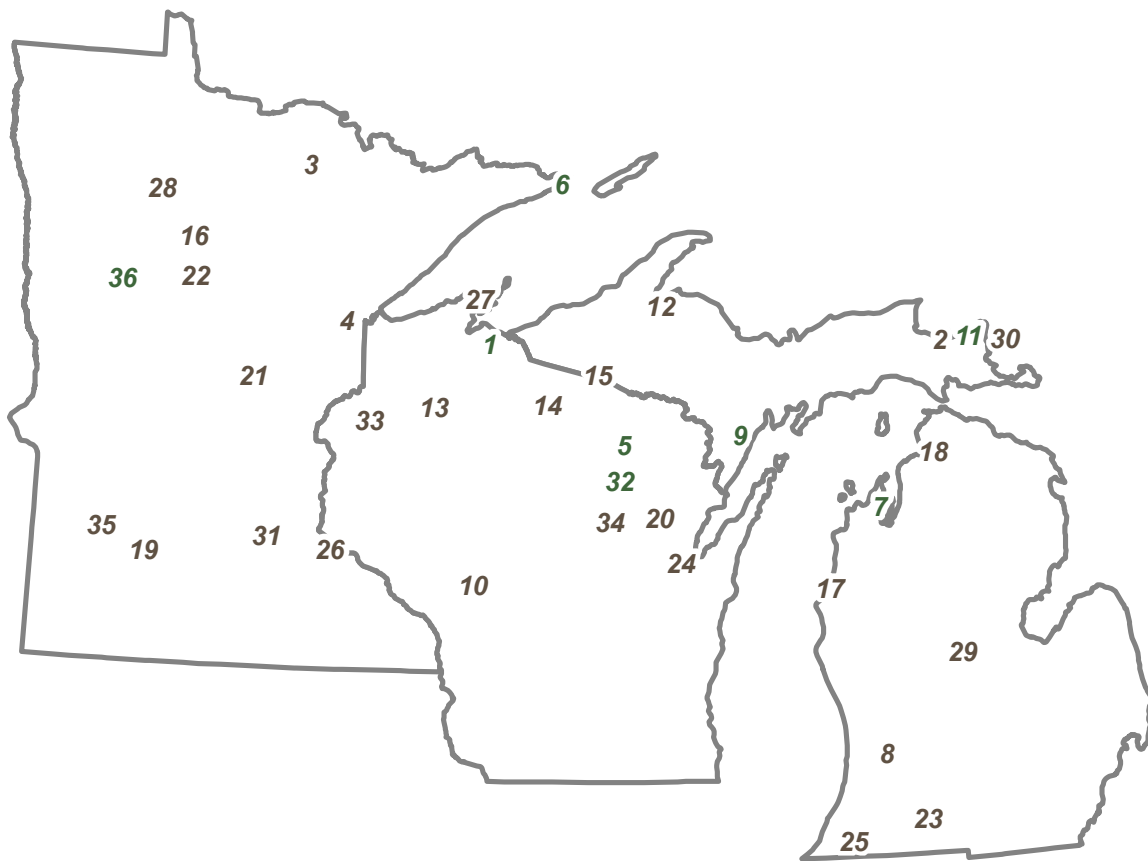
may occur due to increasing SO_2 and NO_x emissions from fossil fuel combustion.



Air quality focus areas form the Climate Change Vulnerability Assessment and Adaptation Plan.



US EPA Region 5 Tribes



- | | |
|---|---|
| 1 Bad River Band of Lake Superior Chippewa | 19 Lower Sioux Indian Community |
| 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 Gun Lake Band of Potawatomi Indians | 26 Prairie Island Indian Community |
| 9 Hannahville Indian Community | 27 Red Cliff Band of Lake Superior Chippewa |
| 10 Ho-Chunk Nation | 28 Red Lake Band of Chippewa Indians |
| 11 Inter-Tribal Council of Michigan, Inc. (Consortia) | 29 Saginaw Chippewa Indian Tribe |
| 12 Keweenaw Bay Indian Community | 30 Sault Ste. Marie Tribe of Chippewa Indians |
| 13 Lac Courte Oreilles Band of Ojibwe | 31 Shakopee Mdewakanton Sioux Community |
| 14 Lac du Flambeau Band of Lake Superior Chippewa Indians | 32 Sokaogon Chippewa Community |
| 15 Lac Vieux Desert Band of Chippewa | 33 St. Croix Chippewa Tribe of Wisconsin |
| 16 Leech Lake Band of Ojibwe | 34 Stockbridge-Munsee Community |
| 17 Little River Band of Ottawa Indians | 35 Upper Sioux Community |
| 18 Little Traverse Bay Bands of Odawa Indians | 36 White Earth Band of Chippewa |

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