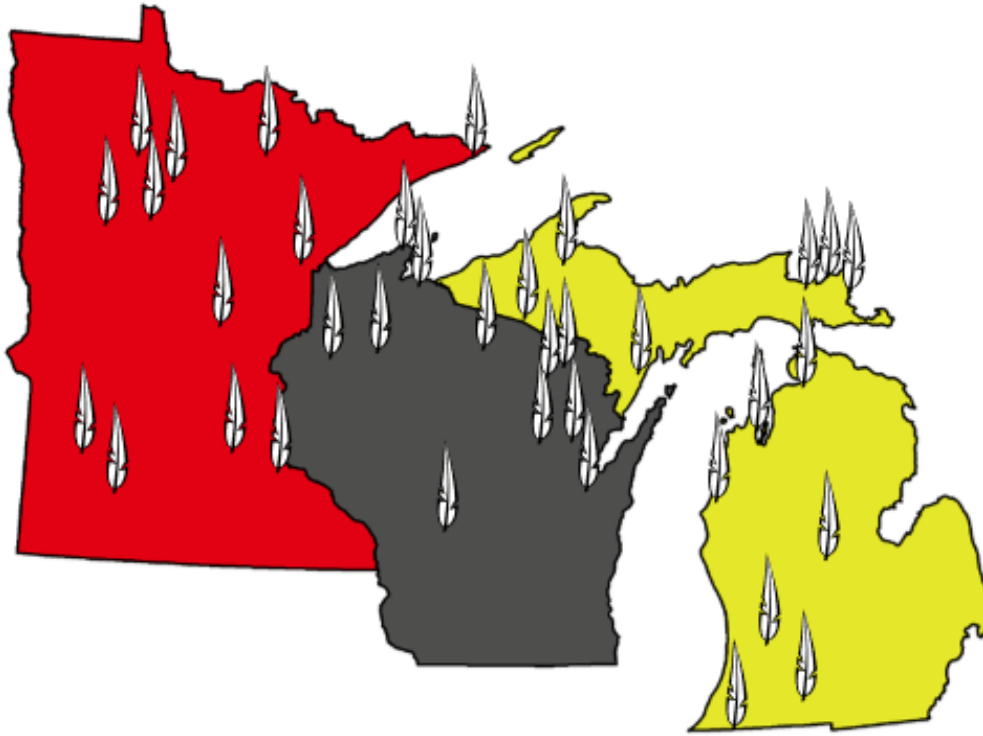


Tribal Air Resources Journal

*Accomplishments, Obstacles, Successes and Setback of
EPA Region 5 Tribes – Air Quality
2017 Edition Volume IX*



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 ninth year of publication, that this Journal will communicate the goals, achievements and issues in Indian Country to you, the reader.

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

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**Seven R5 Tribes attain
TAS for air**

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donating air equipment**

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**Red Cliff utilizing
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**Stockbridge-Munsee to
initiate IAQ Program**

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

Preface

Welcome to Region 5's ninth 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, 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. 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 summary of the work they do and may have focused on in 2017. 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, the Tribes of Region 5, thank you in taking the time to read this Journal and share the knowledge you have gained with others. With great pleasure we present you with the 2017 Region 5 Tribal Air Resources Journal.

-Region 5 Tribes

2017 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 reduced match and CAA 505a(2) for Title V notification. One Tribe is in process for TAS in 2018. One Tribe has additional CAA 126 Authority. Another Tribe is currently in process on a supplemental TAS for 107d3, 110a2d and visibility 169b. Many other Tribes have TAS in their ETAPs and long range plans.
- 1 Tribe has Class 1 re-designation. 2 Tribes are in the response to Tribal comments stage of Class 1 re-designation and plan to submit formal requests to EPA in 2018. One Tribe has plans to scope out Class 1 re-designation. Multiple other Tribes are evaluating Class 1 in their long range plans.
- 3 Tribes in R5 are researching the feasibility of Tribal Implementation Plans (TIPs).
- In 2016, SIP Rule change for Wisconsin to comply with Forest County Potawatomi Class 1 Redesignation has been amended into the State SIP Rule for FCP Class 1 Area administration.

EPA Funding

- **Clean Air Act** – 17 Tribes requested \$1,998,558 for air quality project/program support from EPA. 17 Tribes were *partially* funded with R5 FY17 State and Tribal Assistance Grant (STAG) funds totaling \$1,249,969. EPA R5 Allocation was only \$1,239,335 however, additional funds were identified to better address the Tribal need. 11 Tribes received CAA 103 grant funding and 7 Tribes received CAA 105 grant funding. 6 of the 7 105 grantees have incorporated their Air Grants into a PPG grant for FY17. 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 FY17. In FY17 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.

Other Funding

- **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** – 2017 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) – Steering Committee representative
- 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 Tribal Advisor
- National Tribal Science Council – EPA R5 Representative
- National Tribal Operations Committee (NTOC) –R5 Tribal Representatives
- Regional Tribal Operations Committee (RTOC) – Made up of R5 Tribes
- 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

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 to be hosted by the Fond du Lac Band of Lake Superior Chippewa in May

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: Ben Giwojna, Giwojna.benjamin@epa.gov or contact Brandy Toft, air@lldrm.org 218.335.7429 for a copy.

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
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
VW	Volkswagen Settlement



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, Northland College, and Indian Health Services.

Most recently, the Bad River Air Office worked with stakeholders within and outside of the Band to design and install a 3.2 kW photovoltaic grid-tied array at the ambient air monitoring site. While helping to offset electrical usage of the monitoring site, this photovoltaic array is a pilot project that will be used to demonstrate feasibility while aiding in the planning and development of larger renewable energy projects on the Bad River Reservation.

There are over 500 Tribal homes and buildings located within the Bad River Reservation, of which there are a multitude of indoor environmental issues due to improperly built structures, lack of maintenance, and an environment that contributes to moisture and mold issues. The Band receives State Indoor Radon Grant (SIRG) funding which allows the Band to continue monitoring homes for high levels of indoor radon. The Bad River Air Office continues to work with the Bad River Housing Authority, the Bad River Health and Wellness Center, and other Tribal Departments to address Indoor Air Quality (IAQ) issues within Tribal homes and buildings.

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



Installation of the 3.2kW solar array at Bad River's air monitoring site.





Bay Mills Indian Community

Dwight Sargent, GAP Coordinator

Program in Existence since – 1991

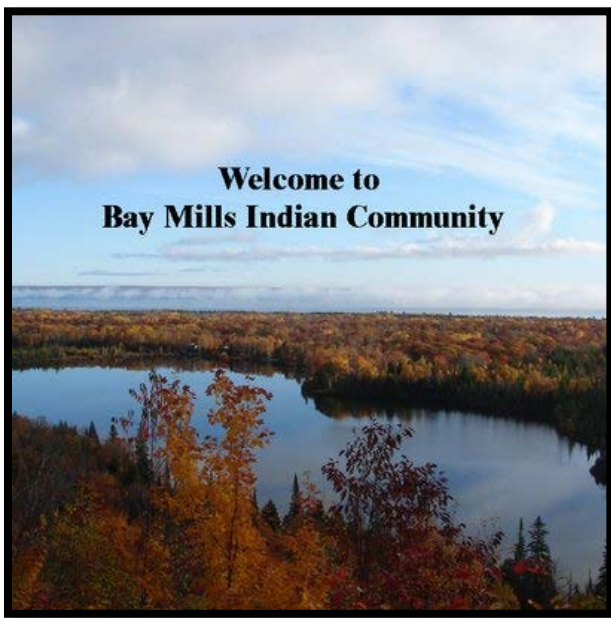
Program Projects – Sec 109, 319, IAQ

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.

The people of the Bay Mills Indian Community have for generations relied heavily on their natural resources as a source of food and commerce. With this, there is a strong commitment to protect and enhance these resources. Staff participate in research and monitoring of the environment on both Tribal trust lands and the surrounding region. 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. Outreach and education is provided to the community in both public events and printed publications.

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

Location – Net Lake and Vermillion (Tower), MN

The Bois Forte Environmental Services Department has not had a Tribal Air Quality Program in a couple of years. The need for this Program is prevalent. The Bois Forte Housing Authority has reported 10+ houses that have mold issues and the Environmental Services Department has received other calls as well. Our current number of houses is approximately 360 with more houses planned to be constructed. Although Bois Forte does not have an IAQ Program, it is anticipated that in the future, funding will be secured to assist the communities to significantly increase and enhance this service once again to our communities.

Beautiful clear skies at the Net Lake Pow Wow arbor.





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 and climate change. In order to protect Fond du Lac resources, the Program reviews draft permits and regulatory actions, and provides education and outreach to Band Members. The Band has been able to develop its Program, assert its sovereignty, and achieve an excellent working relationship with the Minnesota and Wisconsin permitting agencies along 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 five field seasons, and strive to continue this work. We see how this data can assist 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.

The Band continues to pursue Class I redesignation of the Reservation. Once approved by the EPA, we will be able to protect the Reservation's air quality to the same degree as our National Parks, National Forests, and Wilderness Areas. The Band sees this as an important step in keeping our Reservation's air quality clean and in protecting other resources, such as Reservation water quality and local flora and fauna. The Band is working to 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, renewable 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 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.



Fond du Lac air staff have recently teamed up to partner with staff from the Fond du Lac Tribal and Community College and the University of Minnesota – Duluth to study an air quality issue near the FDLTCC campus. We plan to get students from at each of these schools involved in the project and hope to be able to present results at the 2018 National Tribal Air Forum.

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

Fond du Lac plans to submit an application to receive Volkswagen settlement funds in 2018. In this application we plan to propose 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, 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 EPA Region 5 Tribes, and the Air Program Manager has been selected to serve on the Clean Air Act Advisory Committee (CAAAC) as a Tribal Air Programs representative.

In the fall of 2017, FCPC began participating in the Litterfall Mercury Monitoring Initiative in support of other mercury sampling that the Tribe is engaged in; including NADPs Hg Deposition Monitoring Program (MDN), 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.



Setting and collecting leaf litter samples for the Litterfall Mercury Monitoring Initiative.



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 are concerned with the health and wellbeing of our people. The biggest achievement for our air program this year was the approval of our Treatment as State (TAS) application. We have been in the process of getting our TAS application approved since 2012; it was a slow process due to staff turnover and unforeseen issues with our application. Our application was signed by the R5 Regional Administrator in the spring of 2017 and we were granted TAS for sections: 105 funding, 126(a) Interstate Pollution Abatement, and 505(a)(2) Title V notifications. The last challenge in order to get our application through was whether or not to include a set of islands, due to their trust status; interestingly the week our TAS was approved the islands in question were placed into trust for the Band.

In summer 2017 our Department, hosted local high school student interns. We did an Indoor Air Quality project with them measuring particulates, ultrafine particulates, CO, and CO₂ levels in community buildings. This is the start of a larger project due for completion summer 2018 in which we gather the averages over the summer and are going to compare with data collected in the winter. The premise being, to see the active difference in IAQ measurements when people are outside the most and inside the most. Every summer we present at our local health fair on the subjects of: indoor air quality, ambient air monitoring, and the effects of both on respiratory diseases such as asthma. We talked about the Hazecam and our Beta Attenuation Monitor (BAM) explaining the importance of what they measure for our health and the environment we live in.

Indoor air quality has been a challenge this last year due to the turnover of housing directors. I have had more requests by tenants than by the director, which is good, however the recommendations that I make seem to be overlooked. In contrast, housing staff that do invite me in to do assessments really do not need the assessments to be done as they are very good at being on top of repairs and educating their tenants.

Our mercury monitoring is moving slowly but surely. We were able to compare data from different Tribes in R5 and present a map of what we found at last year's TEPM Mercury Workshop. It was intriguing to see the different concentrations of mercury throughout the area where Tribes are located.

*Susie Islands, now in trust, on Lake Superior
(Taken from Mt. Josephine)*





Grand Traverse Band of Ottawa & Chippewa Indians

Kris Ingrao – Environmental Service Coordinator

Program in Existence from - 2002 to 2010

Program 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 via EPA grant funding 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 a green team. GTB's Environmental Program's goal is to restore and protect the natural systems upon which life depends including the integral relationship between these natural systems and the health and welfare of GTB Members in the six-county service area, and arguably the 1836 Ceded Territory. This mission is consistent with the GTB Constitution, which states, in part, that the Constitution was adopted "to conserve and develop our natural resources."

In 2002, GTB established an Air Quality Program under the CAA 103 grant funding. The Air Quality Program began with 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 an Air Quality 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 5 federally recognized Tribes within Michigan. These activities included radon testing of several Reservation homes, along with the development of information fliers which include environmental tobacco smoke, indoor wood burning, and radon. In 1997, the Community received its own EPA General Assistance Program (GAP) grant which included the continuation of indoor air quality efforts within the Hannahville Reservation.

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

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

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

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

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

The Ho-Chunk Nation 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 (NAAQS). Currently, the Ho-Chunk Nation is in the process of fulfilling the necessary QA/QC requirements to produce legally-defensible data.



One of Ho-Chunk Nation newly established Ambient Air Monitoring Stations.

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



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. 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.

ITCMI staff are working with the Saginaw Chippewa Indian Tribe and the Lac Vieux Desert Band of Lake Superior Chippewa Indians on Indoor Air Quality projects.

The ITCMI air monitoring project is funded through a CAA Section 103 grant. With this funding the air monitoring project pursues the goals of: Tribal education, pollution reduction within the Tribal community and ultimately improving and securing the health and welfare of the residents.



ITCMI Website

www.itcmi.org

MiAir Website

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



Keweenaw Bay Indian Community

Katherine Kruse – Environmental Specialist

Program in Existence since – 2012

Program Projects – IAQ, Education and Outreach

Location – L'Anse/Baraga, MI

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

The Keweenaw Bay Indian Community is currently working under its fifth year of Tribal Air Program funding. Beginning in early 2016, KBIC began offering Indoor Air Quality Assessments to all residents living on the L'Anse Indian Reservation. This program has been well received by area residents. Working with the American Lung Association, KBI been able to provide products to residents that have asthma to help improve the quality of their indoor air. Products such as: vacuum cleaners, air cleaners, furnace filters and cleaning supplies have been distributed.

Education has been an important part of our Air Quality Program. Along with providing IAQ assessments to residents, KBIC also offers "Green Cleaning Kits" to all community members during the assessment. This kit helps in the reduction of commercial cleaning products that could potentially trigger breathing attacks. The Green Cleaning Kit along with educational pamphlets aid in raising awareness to the dangers that could be lurking in our homes.

KBIC residents have identified burn barrels, wood stoves and mold as areas of concern in regards to air quality. Our Natural Resources Staff attends outreach events throughout the year to provide materials to residents that address these problems. KBIC will continue building capacity to provide a well-informed Tribal Air Program for our community.

KBIC has expressed interest to EPA to begin seeking Treatment as a State for Air Quality and is in the process of developing an application for programmatic funding.

For more information regarding the KBIC Air Quality Program, please visit:
<http://nrd.kbic-nsn.gov/air-quality>



Above shows a brush pile that had been used by residents to burn household trash. The Village Manager worked with KBIC to install the sign above to warn residents that it is illegal to burn household trash.



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

Over the past several years, and continuing today, the Lac Courte Oreilles Housing Authority (LCOHA) has taken numerous steps to try and improve the indoor air quality of its rental units. The efforts have been targeted towards mold and radon mitigation efforts.

In late 2014, LCOHA initiated a study in all of its housing rental units to determine the amount of mold infestation that was present. This study was secured a grant through the Department of Housing and Urban Development for mold remediation. Though the funding is minimal, it enabled LCOHA to identify problem areas and correct structural issues that supported mold growth. Heat Recovery Ventilators (HRVs) were installed to remove excess moisture during the heating season and supply continuous fresh air. The heat recovery core of the unit transfers heat from the stale air exhausted to the fresh incoming air before being distributed throughout the house. The result is a continuous supply of fresh air with increased comfort for the home occupants.

Radon testing has been done along with the mold remediation. Units found with higher than acceptable radon readings are found a passive radon mitigation system is installed that draws air from the perimeter drain tile and exhausts it to the outdoors. These efforts are only a sample of the many structural and HVAC corrections to improve the indoor air quality, energy efficiencies and overall livability of its LCOHA rental units for Tribal Members.



Active radon system with fan in attic.



Heat Recovery Ventilator System.





Lac du Flambeau Band of Lake Superior Chippewa Indians

Dee Ann Allen – Environmental Program Manager

Program in Existence since – 2008

Program Projects – Energy Upgrades, Capacity Building, 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, and 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
North End 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 721 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 level 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, some outreach and education to the Band Members will be provided.

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 there needs to be a new test done on all Tribal homes.





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

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

The LLAP continues to manage ambient air monitoring sites where we collect background data for Hg (wet deposition and litterfall), and meteorology. In 2015-2016 a small sensor study for PM_{2.5} in partnership with Sonoma Technology and EPA was completed. New in 2017, the LLAP established a new PM_{2.5} BAM1020 site and joined the Atmospheric Mercury Network (AMNet) to measure atmospheric mercury fractions which contribute to dry and total mercury deposition.

The LLAP continues sustainability efforts and has successfully completed a 200kW solar community garden for low-income Tribal Members. The LLAP is also implementing a large 22 building Guaranteed Energy Savings Project (GESp) that could save LLBO over \$900,000 in energy savings and 9,839 metric tons of GHG emissions per year.

Other regulatory work 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 an additional six mining facilities clustered within or near our 1855 Ceded Territory. The LLR has approximately 68 minor sources that exist within the Reservation boundaries. With the review of environmental impact statements, Title V and minor permits on or near the Reservation it is important to understand the complexities of our airsheds and impacts upon them. LLBO received TAS for CAA 105, 505a in October 2007.

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

Currently, the LLAP is funded by: EPA R5 105 air grant, R5 SIRG Tribal radon grant and DOE energy grant. The LLAP looks forward to potential delegation of the mNSR, building and expanding capacity to better serve LLBO, and working with partners to leverage resources.

Sign up for LLAP's Air Quality Forecasting Enviroflash at <http://www.enviroflash.info/signup.cfm>



200kW solar garden celebration.



Wet Deposition NADP Monitor.



Little River Band of Ottawa Indians

Thomas Shepard – Air Quality Specialist

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

LRBOI is in the process of pursuing Treatment as State (TAS) for CAA 105. LRBOI will continue to educate and provide outreach on air quality-related issues. The Tribe is also looking into ways to expand the Air Program to eventually include indoor air quality activities, education and outreach. The Tribe will raise air quality awareness in both Tribal and non-Tribal citizens. This increased awareness will help others better understand air quality issues and hopefully enable them to make more informed quality of life decisions.

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

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



LRBOI's Air Monitoring Station



Manistee Harbor



North Beach Access



Little Traverse Bay Bands of Odawa Indians

Jon Mauchmar – Environmental Specialist – Air Quality

Program in Existence since – 2004

Program Projects – Climate Change Adaptation, Energy Efficiency,
Capacity Building and Community Outreach

Location – Harbor Springs, MI

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

In 2002, LTBB initiated an Air Quality Program that was focused on educational outreach and 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 the Program collected PM_{2.5} data and ozone monitoring occurred for the 2012 season. An updated EI was completed in 2013.

Climate change adaptation and mitigation is a growing concern for LTBB. Solar power and energy efficiency is part of the LTBB strategy to mitigate and adapt to climate change. This will help the Tribe meet its Kyoto Protocol resolution of 25% energy use reduction by 2020. Our Air Quality Program has been a leading supporter of adaptation and mitigation efforts. LTBB's first solar array was installed last year and has generated over 20,000 kilowatt hours with a 20 kW system. In 2017 plans were developed for the next LTBB solar array. The 2nd array may be up to 30 kW and supply about 40% of the power consumed at our Natural Resources Department office. The Air Quality Program also promoted the lighting retrofitting of our 3 largest office buildings to LED lights. Carbon dioxide emissions will be reduced by about 2,471 tons over the 20 year life expectancy of the LED bulbs.

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 would like to expand the program to provide IAQ home assessments. The Air Quality Program worked with Indian Health Services (IHS), the Institute for Tribal Environmental Professionals (ITEP), the LTBB Health Department, and other R5 Tribes throughout 2017 to build capacity for a LTBB IAQ Assessment Program. The Air Program and IHS 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.





Lower Sioux Community

Deb Dirlam – Director of Environmental Programs

Justin Wabasha – Environmental Technician

Department in Existence since – Since 1992

Program Projects – IAQ, Ambient Air Quality, Education

Location – Morton, MN

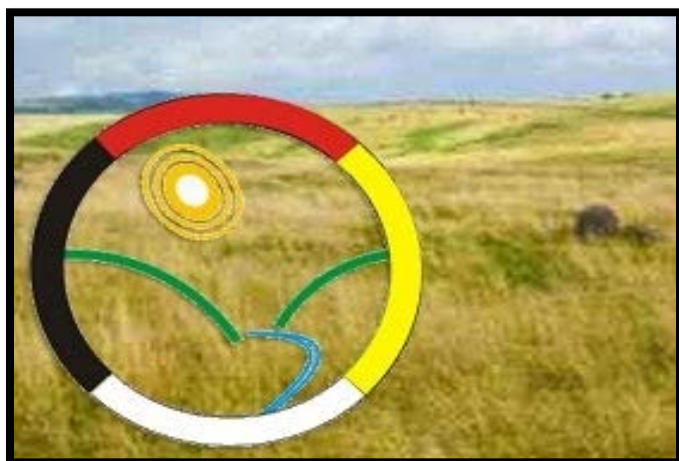
The Lower Sioux Indian Community (LSIC) is located along the Minnesota River in Morton, Minnesota. The Reservation is comprised of 1,743 acres of “trust” land held for the Tribe. The Community contains mostly flat agricultural land along with approximately 250 acres of timber and brush and Minnesota River escarpment. The Tribal commercial center sits on the uplands and is surrounded by agricultural land, prairie pothole wetlands and Tribal housing. The Tribe is governed by the elected five-member Lower Sioux Community Council. The Tribe operates business enterprises such as a casino/hotel and other establishments. Approximately 982 Tribal members live on the Reservation in 150 single family dwellings. The regional land use is predominantly agricultural, and several Tribal Members hold assignments to farm.

The Lower Sioux Community does not currently have an air grant through EPA. In 2016, the Lower Sioux Community did establish a Renewable Energy Advisory Committee to assist in program development including advising on topics such as Climate Resiliency.

The LSIC was also awarded a BIA grant in 2016 to complete a solar feasibility study which is expected to be completed in December 2017.

Air Projects/Programs for FY 2017-2018

- OE staff and Housing staff continue to work with the American Lung Association in conducting In-Home Assessments of Children with Asthma
- Open Burning, Barrel Burning, Fire Prevention, Permitting
- Mold/Moisture Inspections
- Education on Carbon Monoxide, Mold/Moisture, Asbestos, Pests, Weatherization, 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 451 members currently enrolled. The Reservation is composed of 359 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 to provide indoor air quality audits to improve the overall environmental health of tribal citizenry. The Indoor Air Quality Program, which is funded by the EPA General Assistance Program, 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 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. Recently, the Tribe has retrofitted the entire Gun Lake Casino with LED lights as well as the parking lot at the Luella Collins Community Center.

The Tribe has been certified by the Michigan Department Agriculture Environmental Assurance Program. Four (4) fee and trust parcels have been certified in Farmstead and Forest, Wetland and Habitat. The Gun Lake Tribe is the second federally recognized Tribe in the State of Michigan certified by the Michigan Environmental Assurance Program which is an innovative, proactive program that assist all agricultural properties to prevent and minimize pollution risks for the next seven generations.



Jijak Property, MAEAP Certification





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 R5 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 of funding cuts, however 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.

At this time there is not an Air Program within the Reservation, however 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

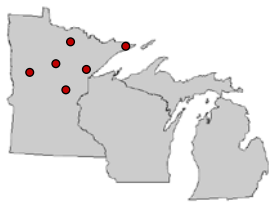
Location – East/Central MN

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 got 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 lead the Tribe to begin monitoring for meteorological conditions, monitor for speciated PM_{2.5} and for 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 Tribes 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 CAA505(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 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 - EPA GAP Coordinator/Environmental Program

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), 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 interactive map online.

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

Amy Boetcher – Environmental Specialist

Program in Existence since – 2001

Program Projects – Emission Inventory, Radon Testing

Location – Pine Creek Reservation, Fulton, Michigan

The NHBP is entering new air territory, after more than 10 years focusing on indoor air quality, particularly radon gas. All of our government homes and buildings have been tested for radon, mitigated as appropriate and are now on a regular monitoring schedule. The Environmental Department's main focus has shifted to ambient air. We are in early stages of exploring air emissions from a recently discovered (since 2010) extension of the Albion-Pulaski-Scipio oil field wells. NHBP staff noticed well construction sites while commuting from Kalamazoo to Calhoun County, noting flares on site, and odors that extended beyond the construction area. Our primary concern is for the potential groundwater pollution from any injection wells, but we also plan to examine potential air pollutants. Federal and state governments are not required to initiate consultation with the Tribe regarding the oil well developments; however, we plan to request it.

There are currently 15,500 active oil and gas wells in the State of Michigan. One to five percent of residents in Michigan live within 1 mile of a confirmed active oil and/or gas well. Common pollutants reported on/near these well sites include: benzene, VOCs, and ozone while other potential pollutants include particulate matter, nitrogen oxides, carbon monoxide, and sometimes hydrogen sulfide. State and federal regulators do not monitor hazardous air pollutants that come from oil and gas operations because oil and gas production is exempt from Clean Air Act regulations. Early studies from other states note adverse health impacts in association with oil and gas wells and suggest the need for more research. Active oil wells are already less than 10 miles from the Pine Creek Reservation and further expansion is likely. We cannot say that Michigan's oil and gas wells are causing adverse health impacts, our initial research indicates that we should at least be exploring the links.



In addition to our exploration of air emissions of recent oil and gas well expansion in our area, we also plan to look deeper into completing our air emissions inventory and exploring air quality around confined animal feeding operations (CAFOs). Common pollutants in air surrounding CAFOs include: ammonia, hydrogen sulfide, methane, and particulate matter. Calhoun County is a very agricultural area with half of all land in agriculture. There are currently seven CAFOs in or very near Calhoun County. Our projects this year span new and mostly unexplored territory for us, however we have good reason to move our primary focus away from indoor air and toward ambient air at the Pine Creek Reservation.

Oil well in Kalamazoo County, about 8 Miles from the Pine Creek Reservation. Photo credit: Google Earth



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 Project Sept 2013

Location – Oneida, Wisconsin

Oneida Nation, located in Northeast Wisconsin, is committed to protecting the natural systems – land, air, and water – that support the Oneida Community and our neighbors. For example, agriculture is an important and significant industry in the region. This requires significant resources to be devoted to non-point runoff, habitat destruction, and other land use challenges. Equally important is Oneida's commitment to the air we breathe and the climate we depend on. In recent years climate adaptation has been an important educational pursuit as well as encourage the investigation into mitigation opportunities.

Using a Department of Energy Office of Indian Energy grant and a partnership with SunVest Solar Inc., Oneida Nation is installing 800 kilowatts of solar-electric modules (photovoltaics) on six Tribal buildings at \$2.54/watt. Project construction started in August 2017 and it's just a few weeks away from generating power.

Despite that solar prices have decreased by more than 60% in the last 10 years, challenges remain. The Investment Tax Credit (ITC), grants, and similar financial tools have allowed many organizations to take advantage of this reliable energy source. Partnerships with for-profit entities have also allowed Tribes to gain access to benefits that would otherwise not be available, such as the ITC. Beyond the financial strategies, utility policy and political will are the largest obstacles to a broader deployment that could have a much greater impact. The future demands bold decisions.

The benefits of this project include savings on utility costs, decreases Oneida's dependence on imported energy, demonstrates Oneida's leadership in sustainable practices, and it confirms Oneida's commitment to Mother Earth. With this project, Oneida Nation will decrease its carbon footprint by nearly 700 tons/year and it will see a benefit of nearly a million dollars of savings over the life of the project. Projects like this one give Tribes the leverage to build relationships that encourage greater participation and a collective strategy to address global energy issues.



*Oneida
Community
Health Center
solar modules
installed.*



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, Mercury, Alternative Energy, Climate Change Planning

Location – Dowagiac, Michigan

The Pokagon Band of Potawatomi Indians (the 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 land acquisitions and historic property uses influence actions taken on those properties.

In 2017, the Department of Natural Resources (PBDNR) has undertaken multiple projects to protect and monitor air quality in the service area including: handing out mercury clean-up kits, testing indoor air quality and reviewing methodology to conduct an emissions inventory (EI). In April, the PBDNR handed out mercury clean-up kits to Tribal Citizens at the annual baby celebration. The clean-up kits included directions and supplies that will allow citizens to safely clean-up loose mercury if a spill does occur. In addition, in order to protect the health and wellbeing of their employees, the Band tested the air quality of a handful of government buildings that may have had mold issues. All tests came back negative for mold spores and there are currently no mold concerns in the buildings that were tested. Lastly, PBDNR has begun the process of doing a Level IV EI for the Band's service area. Tasks completed to date include outreach and gathering information on the contents of an EI as well as training opportunities. In the near future, PBDNR will write the quality assurance project plan (QAPP) and obtain the training and data necessary to do an EI.

PBDNR has also been actively reviewing prevention of significant deterioration (PSD) permits to ensure that ambient air quality in the Band's service area is not degraded. Future endeavors regarding air quality include the possible installation of ambient 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

Program in Existence since – June 2014

Program Projects – EI, IAQ, Outreach/Education, Radiological Monitoring since 1993,

Location – Welch, MN

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

Success

In 2014, PIIC established an Air Quality Program under 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 established! The Air Program partnered in hosting five outreach events for the community and general public in 2017. A successful winter carnival, safety day booth, earth day tree planting, and two school-group presentations brought a total of 264 Tribal community members together over the course of the five events to learn about the important of both indoor and outdoor air quality, and effects on human health.

Challenges

Due to Tribal land being located in a high risk zone for radon and moisture problems, it is important that we combat mold growth as soon as possible. Acquiring funding for remediating these issues needs to be addressed as our Air Program budget only covers IAQ assessments, not remediation. Additionally, staff turn-over, funding cuts through the EPA CAA 103 program, and differing views on the direction of the Program by Tribal Administration has made continuing the Air Program in the latter half of 2017 a challenge. The Land & Environment Department will continue fighting to keep this important program for the future.

Radiation

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



Presentation to School Groups on IAQ



Red Cliff Band of Lake Superior Chippewa

Ernie Grooms - Air Program Manager

Program in Existence since – 2010

Program Projects – IAQ, Basic Source Emissions Inventory

Location – Bayfield, WI

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

The Band's Air Quality Program is in its seventh 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 and energy saving tips. The Band's Health Clinic recognizes the increase of asthma and allergies within our community, especially among our children. Proper management of moisture, air flow, and insulation is a benefit to both health and energy costs.

As many of our homes were constructed prior to 1980, IAQ assessments aid in planning for upgrades and rehabilitation. IAQ assessments are used to determine problem areas within a given structure and to recommend methods to remedy most basic issues. Air samples are taken to quantify harmful gases (CO, CO₂, NO₂, H₂S, TVOC, O₂, RH%, PM_{0.3}, 0.5, 1.0, 2.5, 5.0, and 10.0, and WME% (wood moisture equivalent)). This information is documented "per room" to give an accurate indication of problems and their sources. The exterior walls and ceiling are photographed using a FLIR Thermal Imager to find any issues of sagging, wet, or inadequate insulation to give the home owner/business a visual representation for necessary repairs. This unit also finds "hot" wires within walls where the electrical demand (or short) exceeds product recommendations, which can help prevent a dangerous situation. Education and outreach is also carried out by the information provided in their copy of the report, along with a walkthrough of their building/residence to better explain any areas needing attention. Pamphlets and other educational materials are readily available to the community to increase knowledge/awareness of indoor air quality, safety, and energy efficiency through the Energy Star/Yardstick Program.

The Band is also very interested in attaining air quality NAAQS. Our first Level III Emissions Inventory was completed, submitted 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 – Air Quality 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 11,500 enrolled members, of whom about 6,500 reside on the Reservation. Preserving the Reservation's abundance of natural resources is critical to Band Members' health, welfare, traditional ways of life and economic viability.

The Red Lake Department of Natural Resources (RL DNR) began an Air Quality Program in December of 2007 with GAP funding and in the spring of 2009 secured CAA 103 funding. With the approval of its 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 Clean Air Status and Trends Network (CASTNET) small footprint 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 third year of leaf litter sampling as part of the Litterfall Mercury Project with the National Atmospheric Deposition Program (NADP).

Other ambient air related projects currently active include an updated Emissions Inventory (EI), a Tribal Smoke Management Plan (SMP), and collaboration with the MPCA to include Minnesota Tribes in air quality forecasting and notifications in a way that best represents Tribal needs. The updated EI has been a huge undertaking and is nearly complete thanks to ITEPs online training courses (Emissions Inventory Fundamentals and Emissions Inventory Advanced) and many hours of help from the instructors of the courses. The Red Lake SMP will be the first Tribal SMP in Minnesota.

Although ambient air quality has been the main focus of the Air Quality Program recently, indoor air quality (IAQ) remains a concern. Earlier this year, two IAQ projects were completed as part of a partnership with the American Lung Association (ALA) and Red Lake Comprehensive Health Services. In total, this project helped to remediate 9 homes of elders with COPD and 6 homes where children with asthma stayed after home assessments were done to identify IAQ issues. The Air Quality Program is planning to apply for the Tribal Radon Grant when the next RFP is released. This funding has not been pursued for the last three years due to difficulty acquiring the required 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.

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



Saginaw Chippewa Indian Tribe of Michigan

Sally Kniffen – Environment Specialist

Program – Currently working with ITCM

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

Location – Mt. Pleasant, Michigan

On June 23, 2017, Mt. Pleasant, located within Isabella County, got slammed by a major storm that dumped over 7 inches of rain overnight; causing major flooding in the area. The impact of the powerful flood waters caused severe damage to nearly 100 miles of roadway, leaving 90 roads closed across the County. Damage assessments of both Public and Private Properties in Isabella County were estimated around \$100 million dollars, and declared a state of emergency, at both local and state levels.

Our Tribal Operations building, located in the heart of our Reservation experienced flooding in the lower level that housed the Accounting Department. Employees and most of the documents kept were promptly relocated to an alternate facility. Immediate cleanup ensued, as well as the installation of dehumidifiers. ITC of Michigan performed indoor air quality testing for any molds that would make the space harmful for employees.

Unfortunately, this area of the building had flooded in the past; it was decided to permanently relocate staff offices to another facility. There are currently important accounting documents that need to be kept for an extended amount of time that are still being housed in that location.

This disaster has demonstrated the level of importance of having a clear emergency action plan in place to help guide citizens and responders as they clean up the damage caused by a natural disaster. Isabella and Arenac Counties do not currently have disaster debris management plans in place to use as a guide to execute the proper procedures. The Saginaw Chippewa Indian Tribe has decided to take action in preparing for future events and hopefully be one step ahead. Our environmental team is currently working on creating a disaster debris management plan for the Saginaw Chippewa Indian Tribe to implement in preventing future disasters, debris distribution, and protocol for cleanup and disposal of debris caused by emergency events. Our disaster debris management plan is still in the early stages of being created and we've had many obstacles with gathering the information we need from the proper parties. These obstacles haven't deterred us; we've sent in a draft to the EPA to be reviewed for edits and suggestions, as we continue to push forward and continue to seek the answers to our questions.

A disaster debris management plan isn't where the Saginaw Chippewa Indian Tribe is stopping. We're currently in the process of applying for a FEMA grant that would give our Tribe the capability of applying for emergency funding on our own instead of going through the state.





Sault Ste. Marie Tribe of Chippewa Indians

Robin Bouschor – Environmental Specialist

Program in Existence since – 2016

Program Projects – IAQ, Wood Stove Heating Assessment,
DERA/VW, Bio-Diesel study, 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 second project with CAA 103 funding.

To help Tribal Members with indoor air quality (IAQ) issues the Air Program is developing a QAPP (Quality Assurance Project Plan) 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 social media.

The program is continuing to collect woodstove heating assessments to determine if the Tribe has a need for a woodstove change out program. This also includes providing educational material to interested homeowners from EPA BurnWise program.

Work continues with Intertribal Council of Michigan 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 Cislser Center monitoring PM 2.5 and ozone. The plan is to have the Sault Tribe staff trained fully on how to operate the equipment, and update the QAPP to pass responsibility to the Sault Tribe Environmental Department.

The Sault Tribe Environmental Department held an “Honoring Mother Earth” event in September. The event was a success; it boasted raffle prizes, a free tree giveaway, 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. The humidity meters were purchased with a \$200 donation from the tribe’s Kewadin Casino.

The Department Manager and Air Quality Specialist recently attended the ITEP Treatment As a State (TAS) course at the TAMS Center. The combination of training and networking will help the Sault Tribe apply for TAS under several provisions of the CAA.



Welcome Booth at Honoring Mother Earth.



Shakopee Mdewakanton Sioux Community

Simeon Matthews – Industrial Hygienist

Stan Ellison – Director of Land & Natural Resources

Program in Existence – Since 2011

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

Location – Prior Lake, Minnesota

The SMSC was formally organized under federal Reservation status in 1969. Since then 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 2017 under our new GAP agreement. 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 our air quality work in 2018.

IAQ

IAQ concerns at SMSC continue to include mold/ mildew/ mustiness & allergens. The Tribal Healthy Homes Network, ITEP, and our GAP grant really helped us address these concerns in 2017. In January, EPA approved our first Radon Measurement Quality Assurance Project Plan (QAPP) and we will soon be retrieving the first long-term radon tests under that QAPP.

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. This year, we have completed the transition to LED lighting in many areas; this reduces our electrical use further, and eliminates the risk of mercury pollution from fluorescent lighting. LED street lighting is now the Tribal standard, older lamps are on a replacement schedule, and all interior lighting is being converted to LED as well.

Composting

This year was 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 last year, and continued to improve that diversion this year with the help of our GAP grant. 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 has 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 on the Reservation, and its permits ensure that emission sources are maintained and monitored for the protection of our ambient air quality.





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.





St. Croix Chippewa Indians of Wisconsin

Jamie Thompson- Environmental Specialist

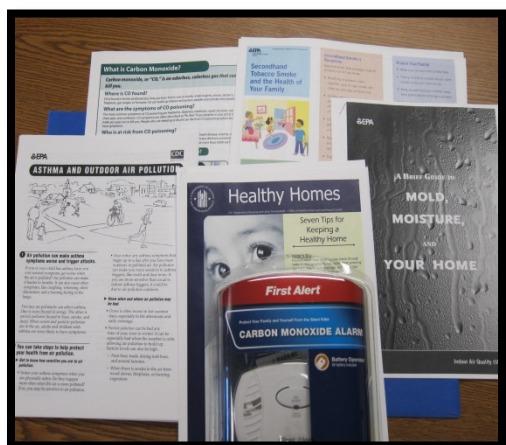
Program in Existence since – 2004

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 a result, 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 and Clinic staff has continued to operate with excellent communication throughout.



As part of the St. Croix's Air Program we involve 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.

Above shows some of the information given out in the healthy home packet and the carbon monoxide alarm.

The CAA 103 funding has allowed growth of the Program by retention of qualified staff who serve 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.

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





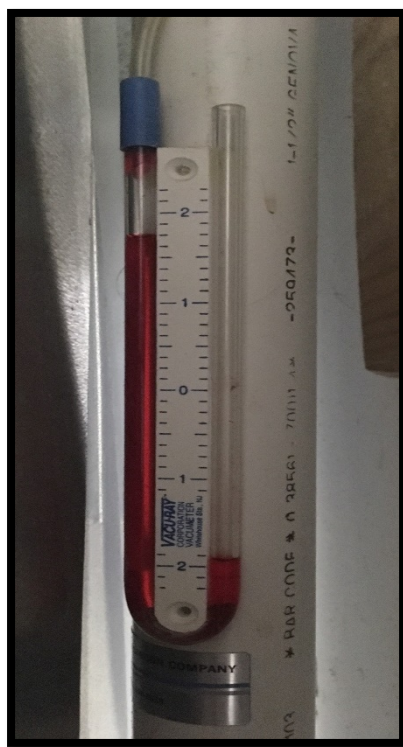
Stockbridge-Munsee Community A Band of Mohican Indians

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

In this past year the Tribe has had many indoor air quality challenges. Our Tribal office was closed for days with mold affecting the health of employees, followed by mitigation of the structure. Radon monitoring continues and many homes & buildings 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 exhaust fan & the manometer indicating proper operation installed on a Tribal office.

This past year with Tribal employees becoming ill when they report to work, needing to leave buildings due to the poor quality of indoor air, and the need to close the building entirely, has driven home the importance of the issues of air quality, indoors and outdoors. The Stockbridge-Munsee Tribe will finalize an Indoor Air Quality Program in 2018. This will include investigations and suggested remediation techniques on mold, asbestos and radon in homes and government buildings. 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. The Tribal Council has requested a radon program be written and a green building program be drafted as part of the Tribal strategic plan. We will also be proactive and propose updates to the Tribal Air Pollution Control Law before outdoor wood boilers become an issue. There are a few minor air pollution sources on the Reservation, electric generators and a gas station, and assistance to register these in the EPA database has been offered.





Upper Sioux (Dakota) Community ~ Pezihutazizi Oyate

Barbara Long- Environmental Director

Megan Moudry - Environmental Specialist

Program in Existence since – No formal program

Program Projects – IAQ assistance to Tribal Members, Renewable Energy

Location – Granite Falls, MN

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

- Northern States Power/Xcel Energy - Minnesota Valley Plant coal-fired power plant (online 1953/2004, coal fly-ash and bottom-ash ponds removed 2010)
 - Granite Falls Redi-Mix – Concrete manufacturer
 - Granite Falls Energy, LLC - Ethanol plant
 - Martin Marietta Aggregates, Yellow Medicine Quarry – Rock mining and crushing
- Each of these sources is within 4 miles of USC and located in or around Granite Falls, MN.*

Also, Big Stone coal-fired Power Plant (online since 1975) is located about 70 miles away on the headwaters of the Minnesota River near Milbank, South Dakota. Our northern border is the Minnesota River which has been a traditional food source, but is no longer relied upon for subsistence due to mercury and PCB contamination of fish.

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

The USC community is surrounded by small-scale farming and industrial agriculture (including anhydrous ammonia for making and using fertilizer, fugitive dust, aerial and ground pesticide applications, concentrated animal feeding operations, etc.) In recent years, we have had heavy winds creating 'dust storms' turning the sky dark brown-gray with suspended topsoil sediments. State Highway 67 east-to-west corridor crosses the entire community and contributes to vehicle emissions. Another contributor is State Highway 212 (to the north), as well as State Highway 23 (which runs north and west of the Community).

We also have current concerns with indoor air quality for radon, mold, second-hand smoke, etc. One of our Community Enterprises is a casino with indoor smoking where many Community Members are employed and breathing second-hand smoke during their shifts and exposing their families to third-hand smoke when at home. Some rural homeowners still use open burn barrels/pits. We have community members of all ages with asthma, allergies and other respiratory disorders. There has been an increase in the prevalence of these illnesses within our younger generations, within the past several decades.





White Earth Band of Ojibwe (Gaa-waababiganikaag)

Richard Jackson – GAP Coordinator

Program in Existence since – No formal program

Program Projects – Radon, Wind Energy, Outreach & Education

Location – Mahnomen, MN

The White Earth Band of Ojibwe (Gaa-waababiganikaag), a sovereign nation, is entrusted to protect the land base, natural resources, treaty rights, and the culture and identity of our Members. The White Earth Reservation, located in 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 is responsible to address air issues.

White Earth Programs Projects include:

- Development of a formal Air Program
- Radon testing for location of hot spots
- Outreach education on air and environmental issues
- Inform home owners on healthy home awareness

Other activities include: updating of the Environmental code to strengthen enforcement, installation of solar panels at various locations throughout the Reservation and implementation of a geothermal heating source at a school.

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.



Settlement Park 3kW solar array.





1854 Treaty Authority

Darren Vogt - Environmental Director

Program in Existence since – No Formal Program

Program Projects – Environmental and Permit Review, Policy Review, Climate Change, Education and Outreach

Location – Duluth, MN

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

The 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.

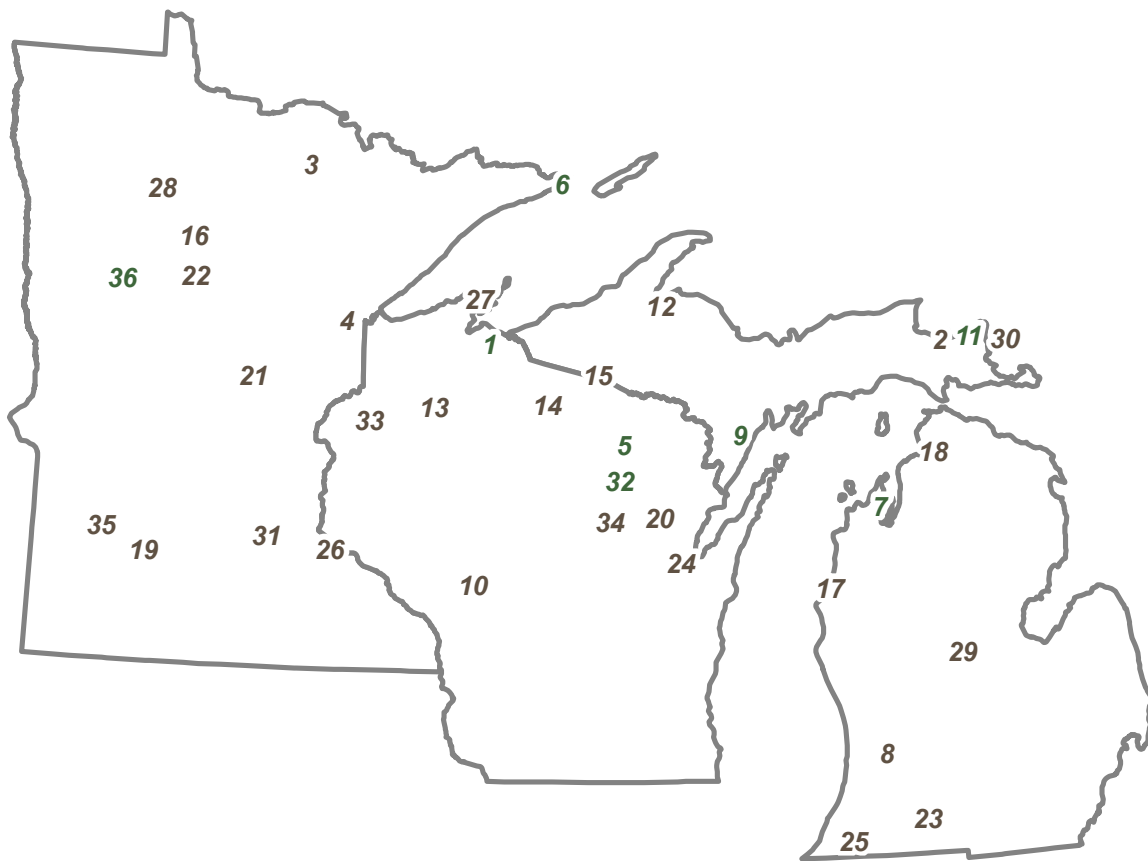


Mining facility within the 1854 Ceded Territory.

Working in partnership with the Bois Forte, Fond du Lac, and Grand Portage bands a “*Climate Change Vulnerability Assessment and Adaptation Plan*” was completed in 2016. A portion of the plan was dedicated to potential climate change impacts to air quality. The 1854 Treaty Authority is working to implement adaptation strategies from the plan.

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

US EPA Region 5 Tribes



- | | |
|---|---|
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| 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 |
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| 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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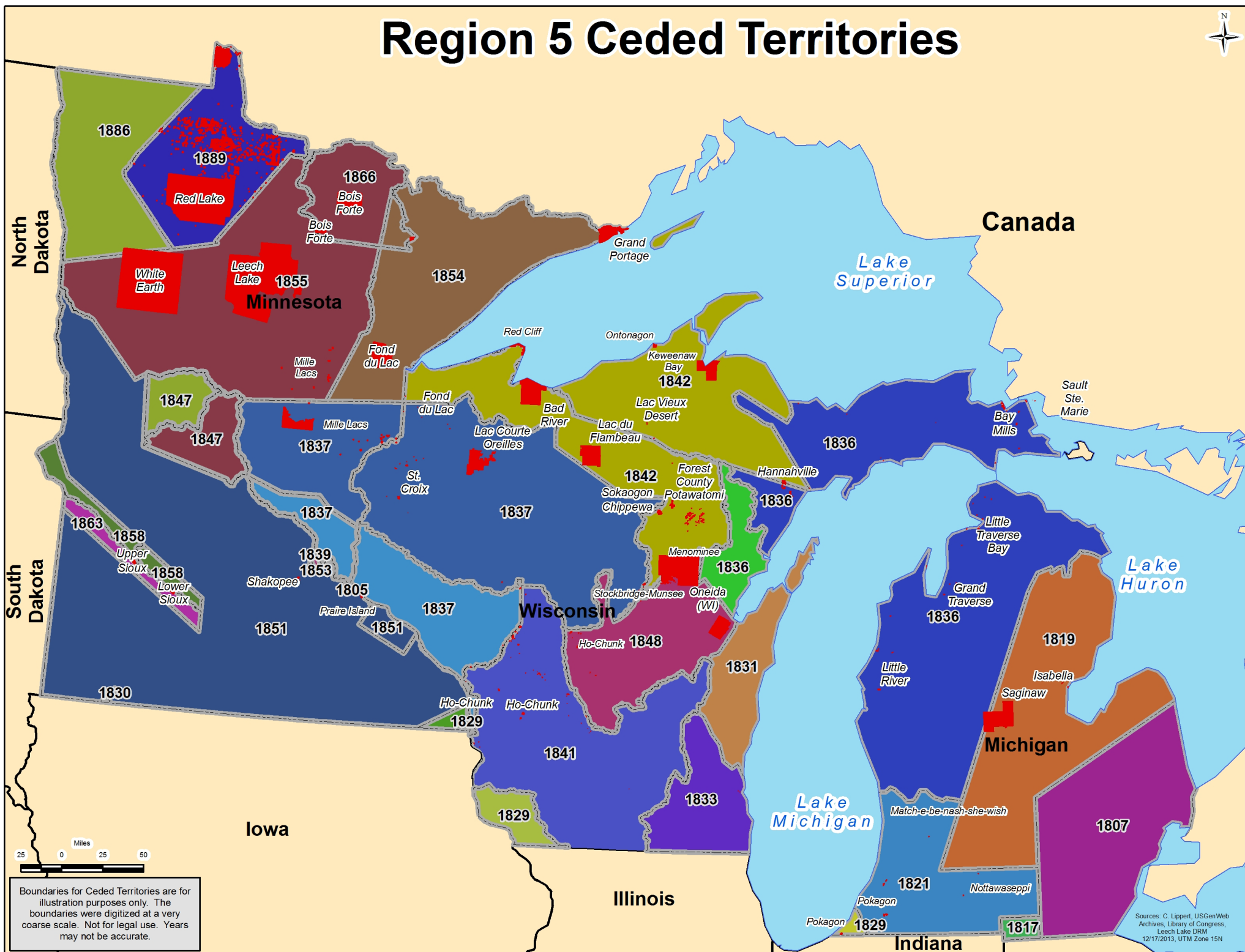
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Region 5 Ceded Territories



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

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