

Tribal Air Resources Journal

*Accomplishments, Obstacles, Successes and Setbacks of
EPA Region 5 Tribes Pertaining to Air Quality*

2020 Edition Volume XII

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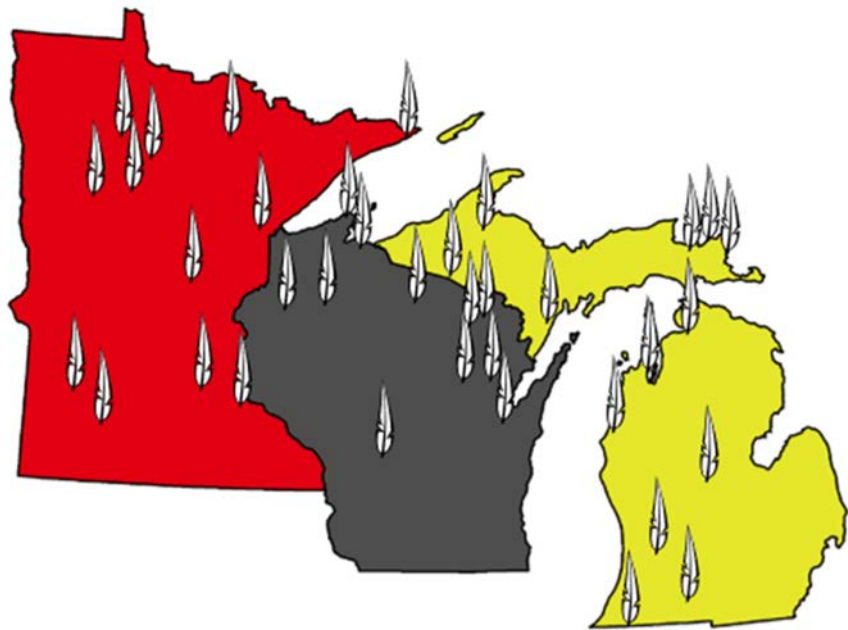
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The *Tribal Air Resources Journal* was started by Tribes in EPA Region 5 to better publicize Tribal Air Quality Program achievements, progression, and struggles to their Tribal Nations as well as in Indian Country. Environmental staff at these Tribal Nations 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 administers its own funding and is not linked to the others in terms of governance. It is our hope, in our Twelfth year of publication, that this Journal will communicate the goals, achievements and issues in Indian Country to you, the reader.

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

Over a Decade of Air Outreach

Welcome to Region 5 Tribe's twelfth 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. This Journal is not only meant for EPA readers, it is equally meant to tell our story to others across Indian Country, Tribal Nations, 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 projects and studies;

Tribes are sovereign nations and that;

Tribes are great partners.

The Journal demonstrates a continuing and underserved need where so much more work is to be done. Over the years, the Tribal Air Resources Journal has expanded from bare bones entries to a document that includes: location maps, list of Tribal contacts, reference pages and a R5 Ceded Territory map. Each Tribal submission is capped at one page, thus creating a short synopsis of the work they do and may have focused on in 2020. Needless to say there is so much more that each Tribe does each year and plans for in the future. Please contact the Tribe(s) with any questions or comments as this is the function of the Journal; to create awareness and conversation.

This year of 2020 has created a multitude of obstacles of which has impacted each Tribal Nation differently. Work has not ceased during these obstacles, most Tribes have found ways to adapt and keep moving forward in some fashion. There have been great obstacles facing each Tribal Nation. Every Tribe has had short and long term layoffs, with some even having to do permanent layoffs. Thru it all we are still here.

We are proud to celebrate over a decade of the Tribal Air Resources Journal. It is rewarding that readers are asking when the next edition will be released and to hear the stories on how the Journal assisted them with information, networking and/or influenced them. This indicates the value and interest that our Journal has garnered.

We, the Tribal Nations of Region 5, thank you in taking the time to read our Air Resources Journal and to share the knowledge you have gained with others.

-Region 5 Tribes

2020 Summary of Facts for EPA R5 Tribes

Clean Air Act Implementation

- 8 Tribes in R5 currently have Treatment as a State (TAS) status for air quality. Of the 8, all air TAS Tribes have CAA 105 with reduced grant match and CAA 505(a)(2) for Title V notification. Two of these Tribes also have CAA 126 authority. No new TAS applications were submitted in 2020, however a couple of Tribes are working on submissions potentially in FY21 and others have TAS in their ETEPs and long-range strategic plans.
- 1 Tribe has PSD Class I redesignation. 2 Tribes have are in their own response to comments stage of Class I redesignation process and plan to submit formal requests to EPA. One additional Tribe has plans to scope out Class I redesignation. Multiple other Region 5 Tribes are evaluating Class I in their long-range plans.
- One Tribe in R5 is assessing the feasibility of a Tribal Implementation Plan (TIP).
- In 2016, the SIP Rule change for Wisconsin to comply with Forest County Potawatomi Class I Redesignation has been amended into the Wisconsin SIP for FCP Class I Area administration.

EPA Funding

- **Clean Air Act** – 15 Tribes requested \$1,715,857 for CAA 103/105 air quality project/program support from EPA. 15 Tribes were *partially* funded with R5 FY20 State and Tribal Assistance Grant (STAG) funds totaling \$1,242,619. 7 Tribes received CAA 103 grant funding and 8 Tribes received CAA 105 grant funding. 6 of the 7 105 grantees have incorporated their Air Grants into a PPG grant for FY20. One Tribe has implemented an air media only PPG. R5 has implemented a 2 year workplan with a staggered funding structure for established Tribal Air Programs.
- **Tribal Radon (SIRG) Grants** – 4 Tribes are were awarded SIRG Radon grants in FY20 totaling \$120,000 with two year budget periods. All SIRG grants were incorporated into PPGs to reduce the match (25-40%) requirement to 5%. 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 IAQ work via: CAA 103/105 STAG, TOSCA, SIRG, GAP, and OECA EJ funding sources to implement a wide range of IAQ projects.

Other or Past Funding Opportunities

- **American Lung Association** –IAQ projects
- **Supplemental Environmental Projects Funding** – 1 MW solar array
- **MN State LCCMR funding** –community solar garden for low income Tribal Members
- **Department of Energy** –Investment Grade and solar projects
- **IHS Tribal Environmental Health Grants** –Sustainability on Reservations with air emission reductions.
- **DERA/VW Funds** –diesel retrofits, replacements and EV chargers
- **Stove Swap and EPA Stove Change Outs** – wood stove change outs

Federal Websites

Center of Disease Control, COVID Information

- <https://www.cdc.gov/coronavirus/2019-ncov/index.html>

Environmental Protection Agency, Indoor Air Quality Information

- <https://www.epa.gov/indoor-air-quality-iaq>

Environmental Protection Agency, Ambient Monitoring Technology Information Center (AMTIC)

- <https://www.epa.gov/amtic>

Air Now

- <https://www.airnow.gov/>

USFS Story Map

- <https://usfs.maps.arcgis.com/apps/Cascade/index.html?appid=11f32c35521642559258fc43f524fb7b>

State Websites

Michigan - Michigan Department of Environment Great Lakes and Energy (EGLE)

Main EGLE Air Site

- <https://www.michigan.gov/egle/0,9429,7-135-3310---,00.html>

EGLE Air Permits

- https://www.deq.state.mi.us/aps/downloads/rop/ROPlist/APS_ROP_Sources_by_Name.pdf

EGLE Air Division Contacts

- https://www.michigan.gov/documents/Phone_List_by_unit_86621_7.pdf

Wisconsin – Wisconsin Department of Natural Resources (WDNR)

Wisconsin current AQ/forecasts, monitoring, AQ trends, open burning, AQ news, permits, emissions, contacts

- <https://dnr.wisconsin.gov/topic/AirQuality>

Wisconsin Air Pollution Control Rules

- <https://dnr.wisconsin.gov/topic/AirQuality/Rules.html>

Minnesota - Minnesota Pollution Control Agency (MPCA)

MPCA main page

- <https://www.pca.state.mn.us/>

MPCA air data and tools

- <https://www.pca.state.mn.us/air/data-and-tools>

MPCA air permits

- <https://www.pca.state.mn.us/air/air-permits>

MPCA Tribal

- <https://mn.gov/portal/government/tribal/mn-indian-tribes/>

Indian Country Websites

National Tribal Air Association

- <https://www.ntatribalair.org/>

Tribal Air Monitoring Support Center

- <http://www7.nau.edu/itep/main/tams/>

Institute of Tribal Environmental Professionals

- <http://www7.nau.edu/itep/main/Home/>

Midwest Tribal Energy Association

- MTERA.org

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

National/Regional Committees:

- Clean Air Act Advisory Committee (CAAAC) – EPA R5 Tribal Representative
- Tribal Air Monitoring Support Center (TAMS) – 2 Steering Committee Representatives
- National Tribal Air Association (NTAA) – 2 R5 Tribal Reps, Vice Chair of Executive Committee
- National Radon Action Plan (NRAP) –Committee Member and NTAA Representative
- Conference of Radiation Control Program Directors (CRCPD) E-25 Committee Member
- National Tribal Science Council – EPA R5 Representative
- National Tribal Operations Committee (NTOC) –R5 Tribal Representatives
- Regional Tribal Operations Committee (RTOC) – Made of R5 Tribes, two from each state plus alternate
- LADCO- Technical Committee involvement
- Multiple R5 Tribes serving as ITEP instructors, sharing peer to peer information with other Tribes
- VW Tribal Advisory Council – R5 Tribal Representative
- Midwest Tribal Energy Resource Association (MTERA)

Workgroups:

- EPA R5 Tribal and EPA Mining Workgroup
- NTAA Indoor Air Quality Workgroup
- NTAA Mobile Sources (formerly the VW Diesel) Workgroup
- NTAA Indoor Air Quality Workgroup
- NTAA Woodstove Workgroup

Regional and National Meetings:

- EPA R5 Tribal Air Meeting – at the R5 Tribal Environmental Program Managers (TEPM) 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)
mntechhomepage.wixsite.com/mysite/about
- Michigan Tribal Environmental Group (MTEG)
- Wisconsin Tribal Conservation Advisory Council (WTCAC)
- National Tribal Forum on Air Quality – R5 Tribes attend, on planning committee, and present

Please refer to the documents below for individual Tribal contacts and information sharing:

- *R5 Tribal Areas of Interest document for permits for input on TV and mNSR permits*
- *Tribal National, Regional and Local Workgroup Involvement List*

For copies please contact: ***Brandy Toft*** ***brandy.toft@llojibwe.net*** ***218.335.7429***
 Robin Bouschor ***rbouschor1@saulttribe.net*** ***906.632.5575***

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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
COVID	Covid-19, Coronavirus
EI	Emissions Inventory
EPA R5 (R5)	Environmental Protection Agency - Region 5
ETS	Environmental Tobacco Smoke
GAP	General Assistance Program
Hg	Mercury
HUD	Housing and Urban Development
HVAC	Heating, Ventilation and Air Conditioning
IAQ	Indoor Air Quality
ITEP	Institute for Tribal Environmental Professionals
Met	Meteorology; Meteorological Station/Tower
MTERA	Midwest Tribal Energy Resources Association
MPCA	Minnesota Pollution Control Agency
NAAQS	National Ambient Air Quality Standard
NADP	National Atmospheric Deposition Program
NO _x	Oxides of Nitrogen
MNSR	Minor New Source Review
NSR	New Source Review
NTAA	National Tribal Air Association
O ₃	Ozone
pCi/L	Picocuries per liter for radon measurement
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, Solar

Location – Odanah, WI

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 radon and other indoor pollutants, along with ambient 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-term monitoring at this time includes two years in the Ammonia Monitoring network and nine years in the Litterfall Mercury Monitoring program.

The Band was awarded a Department of Energy grant in 2019 for the Ishkonige Nawadide (It Catches Fire) Solar Microgrid Project. This project focuses on resiliency after the July 2016 flood when the Band experienced lengthy electrical outages at vital facilities such as the Health & Wellness Center (H&WC) the community clinic. Through this project the Band is installing over 500 kW of solar photovoltaic production with over 1000 kWh of battery storage at three Tribal facilities: the Chief Blackbird Center, Wastewater Treatment Plant (WWTP), and the H&WC.

The systems at the H&WC and the WWTP will offset each facility's electrical loads and offer a level of resiliency if power goes out for weeks, and possibly even longer periods of time. The Band has conducted strategic long-term planning and have identified additional phases that would add to existing microgrids. The Band's Air Office will continue to work with the Band's Renewable Energy Team to accomplish energy goals, specifically those that encourage cleaner energy.

Installation of the Ishkonige Nawadide Solar Microgrid Project at the Band's Health and Wellness Center.





Bay Mills Indian Community

Angela Johnston, Community Health/ Indoor Air Coordinator

Program in Existence since – 1991

Program Projects – Sec 109, 319, IAQ, Radon

Location – Brimley, MI.

Gnoozhekaaning (the place of the pike) is the traditional name given to The Bay Mills Indian Community (BMIC) by local Ojibwe. Bay Mills resides on a narrow strip of land on Lake Superior's shores. In past years, BMIC has collaborated with the Inter-Tribal Council of Michigan, Inc. (ITCMI) with the primary focus of implementing the GAP program to improve air quality on the Reservation.

Currently, BMIC has GAP funding and has hired a Tribal member who is becoming a Certified Radon Specialist. By hiring within the Tribe to work on improving clean air within the Reservation, the hope is this will create an interest in the community and an opportunity for sustainability of the Program for future generations.

Past work in collaboration with ITCMI has included radon testing all homes within the BMIC Housing Authority to identify structures that require mitigation and ensure families with mitigation systems already in place continue to function. Plans are to continue to build upon the relationship with BMIC Housing Authority to provide that residents have clean air, free of radon. Future goals are to expand testing to the fifteen Tribal service buildings and four enterprise locations, the Reservation's primary employment centers. Enterprise alone employs over 700 staff members who spend 8 hours a day, 365 days a year within the buildings they work.

Due to the Bay Mills Indian Communities population is growing at a rate of 5-10% annually, future housing developments are on the horizon to accommodate this growth within the Reservation boundaries. The concern is that 12% of homes in Chippewa County where the Tribe resides have radon levels above 4pCi/L. Plans are to take action before the houses are built and work with Tribal Council to ensure that "all" new homes and structures constructed within the Reservation boundaries have a mitigation system already (RRNC) in place before habitation occurs. This goal will be a step in ensuring the health and safety of future Tribal residences and take steps to implement the right to breathe clean air.

Visit the Bay Mills Indian Community Website www.baymills.org





Bois Forte Band of Chippewa

Tara Geshick– Natural Resources Director

Program in Existence since – 2002

Program Projects – IAQ, Asthma Awareness, Climate Change

Location – Nett Lake and Vermillion (Tower), MN

BOIS FORTE COVID RESPONSE

Bois Forte has issued and implemented a very serious, and largely comprehensive, approach to assure community safety and security during the COVID pandemic. Early on, in March 2020, Bois Forte established a Tribal Emergency Response Committee (TERC), comprised of elected Council Members, Health Officers, Department Directors, Law Enforcement and Emergency Operations personnel, and Communications personnel to devise and implement COVID safety plans. The TERC was instrumental early in finding and obtaining essential COVID testing equipment and supplies to test and inform community members. The TERC continues to meet on a frequent basis and reviews safety plans and implementation; devises and directs funding plans and processes being carried out with federal CARES Act funding, organizes food and safety supplies chains and distribution networks for community households, studies national and local trends and communicates COVID warnings, and ensures fast treatment and proper quarantining processes for affected individuals. Through these continuous and diligent efforts to date, Bois Forte has largely managed to keep COVID infections within its Reservation sectors contained and controlled.

CLIMATE CHANGE EVALUATION INITIATIVES

Bois Forte is developing research plans to evaluate climate change through evaluation of nutrient deposition and distribution pathways in aquatic systems. Climate change and warming trends are considered likely to enhance or alter vegetation and aquatic consumer growth and distribution patterns and may change rates, physical paths and sinks of senescent vegetation nutrients redistributed in lakes and wetlands. This type of evaluation is inherently complicated by the fact that large-scale comparative evaluations, necessary to reference and validate field studies of this type, are only recently becoming available. Pending availability of funding, Bois Forte is prepared to begin basic evaluations of wild rice plant decomposition rates, aquatic macroinvertebrate community distribution and feeding affect, and will begin the process of statistically correlating biological findings with water quality metrics, which the Band has compiled for many years.

AIR QUALITY

Due to lack of trained personnel and limited EPA funding, Bois Forte DNR does not have an active Air Program and is not presently performing air quality evaluations.





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

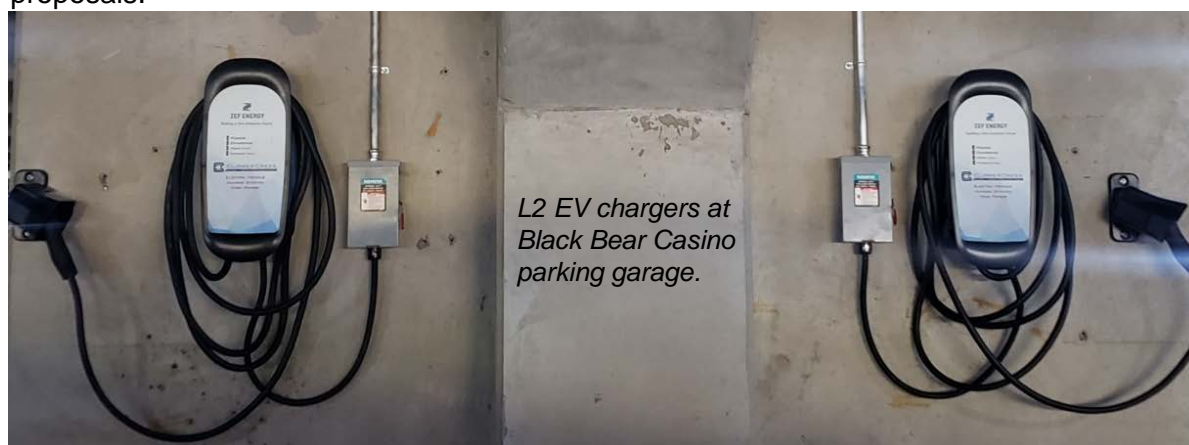
Location – Cloquet, MN

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 parts of the CAA in 2004. The Band uses this status to receive advance notice of permit issuance from the Minnesota Pollution Control Agency. The Program provides the Band with expertise on environmental issues related to air quality. In order to protect Fond du Lac resources, the Band reviews and provides feedback on draft permits and regulatory actions, and provides education and outreach to Band members.

The Band has been able to develop its Program, assert its sovereignty, and achieve an excellent working relationship with the Minnesota and Wisconsin permitting agencies, as well as 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 PM_{2.5} continuous monitors, and a mercury wet deposition monitor. We are in the process of installing a Purple Air sensor, which will help track pollutants from wildfire smoke across the State of Minnesota. The Program has also collected data on leaf litter mercury dry deposition for eight field seasons and hopes to continue this work in the future. Our goal is for this data to assist in helping 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.

In 2019 and 2020, the Band received awards in three rounds of VW Settlement funds. The majority of these funds are being used to replace older diesel heavy vehicles on the Reservation. The remainder of the money is being used to install three electric vehicle charging stations on the Reservation at three different locations. One of these locations (the Band's Clack Bear Casino Resort) is an important one as it fills a gap in the state's network of stations.

Meanwhile, the Band continues its work addressing indoor air quality issues and reviewing and commenting on proposed permits and regulatory actions. The Band submitted a number of comment letters this past year on several actions proposed by EPA, specifically on the Ozone and PM NAAQS, as well as the Transparency in Science and Cost/Benefit Analysis proposals.





Forest County Potawatomi Community

Natalene Cummings – Air Quality Program Manager

Joe Cebe – Air Quality Specialist

Program in Existence since – 2002

Program Projects – O₃, SO₂, Hg, PM_{2.5}, Acid & Hg deposition, Litterfall, MET, & IMPROVE

Location – Crandon, Forest County, Northeastern Wisconsin

The FCPC Ambient Air Monitoring Program began in 2002 to gather pollutant data to establish baseline air quality and to support its 1994 application for Class I designation under the Clean Air Act. The Program collects data for O₃, SO₂, vaporous Hg, PM_{2.5}, acid and Hg deposition. It has also partnered with the Interagency Monitoring of Protected Visual Environments (IMPROVE) network to collect data on regional haze.

Under FCPC's Class I authority approved in 2008, FCPC identified Air Quality Related Values (AQRVs) for vegetation, water quality, aquatic systems and visibility, and established pollutant thresholds for each of the AQRVs. Through predictive pollution modeling, proposed emissions from "major" new or modified facilities must remain below FCPC's AQRV impact thresholds. FCPC participates in discussions with the state issuing the permit to insure adequate emission controls are in place to protect its resources.

Additionally, TAS authority approved in 2010, enables FCPC to participate in specific state air pollution management activities on a government-to-government level, including Title V permit renewal and in area NAAQS attainment determinations and planning. FCPC is currently seeking additional TAS delegations that will provide further opportunities to protect its air shed and that of the region. Air funding comes from: CAA 105, EPA multipurpose and Tribal sources.

FCPC's Air Program staff participate in Tribal air committees that provides opportunities for informing and guiding policy that recognizes and benefits Tribal Communities. The AQ Specialist is serving on the Tribal advisory committee for EPA's VW settlement, consulting on the distribution of settlement funds, while the Air Program Manager is a Tribal representative on EPA's Clean Air Act Advisory Committee (CAAAC).

Tribal air programs across the country continue to grow and progress but are being limited by the decreasing availability of funds. As more Tribes come in for funding for new air programs from a budget that isn't expanding, existing programs are forced to curtail their efforts and new ones are unfairly not able to get established.



Ariel view of FCPC Air Site



Grand Portage Band of Chippewa

Vallen Cook – Air Quality Specialist

Program in Existence since – 2003

Program Projects – PM_{2.5}, IAQ, Asthma, Hg, Regional Haze, Renewable Energy, Enviro Education, Climate Change, Permit Review

Location – Grand Portage, MN

The Grand Portage Band of Chippewa Reservation is located in the most northeast point of Minnesota. We have had an established Air Program since 2003. Our focus has been on ambient air monitoring, indoor air quality, environmental education, and regional haze. In 2017 we attained Air Quality TAS status. We are looking towards Class I Designation for our air shed in the coming years. For the time being, the Grand Portage Air Quality Specialist has been gathering data to complete an Emissions Inventory. We have been working with the Minnesota Pollution Control Agency on a PFA's monitoring project that will go on until August of 2021.

The effects of COVID on Grand Portage's Air Program have been interesting, like other Reservations. Usually, our most significant issue for us is indoor air quality. Reaching out to people for indoor air assessments in the past has been a big issue. Since the start of COVID, we have had more calls for assessments than in years past. These calls correlate to the amount of time people have been spending inside is way more than average. The concern for healthier indoor air has grown quite a bit. Near the beginning of COVID, the Trust Lands Department was asked by the Tribal Council to gather fish and other game. This was to ensure our elders and our local community had food.

Our Department as a whole has been super flexible during the unknowns of COVID. Working from home has been a switch for a lot of staff. The adjustment to a lot of video meetings has been a fascinating feat. The technical issues with these meetings are ever-present. Everyone understands how these issues just occur without prompt. As example, our AQS presented to EPA on working effectively with Tribes. During the testing session, everything worked fine. Less than a half-hour later, nothing went according to plan during the actual presentation. The presentation itself was well-received and went well overall.

We have been very involved in the Tribal Air Monitoring Center (TAMS) steering committee. Our Air Quality Specialist serves as the Vice-Chairman of the TAMS steering committee and the liaison between TAMS and the National Tribal Air Association. In February, the AQS attended a meeting in Washington DC as part of the NTAA's annual executive meeting.



*Grand Portage Bay within the
Grand Portage Reservation*



Grand Traverse Band of Ottawa & Chippewa Indians

Carolyn Sonderegger – Environmental Services Coordinator

Program in Existence from 2002 to 2010

Former Program Projects – O₃, IAQ, Hg, EI, Diesel Retrofit, NADP, Radon, Burn Barrels, Residential Mold, and Educational Outreach.

Location – Peshawbestown, Michigan

The Grand Traverse Band of Ottawa & Chippewa Indians (GTB) headquarters in Peshawbestown Michigan; the northern part of Michigan's lower peninsula. GTB's Natural Resource Department (NRD) Environmental Program was established on October 1, 1997 through grant funding from EPA and has grown to include programs for solid waste management, pollution prevention, watershed planning, great lakes management planning, environmental health, groundwater and surface water quality protection, seventh generation initiative program, wetland protection, nonpoint source pollution, soil erosion permitting, CERCLA Section 128A (brownfields, Phase 1 contamination surveys, environmental response), and a green team. GTB's Environmental Program's goal is to restore and protect the natural systems upon which life depends. This includes the integral relationship between natural systems and the health and welfare of GTB members in the 1855 Treaty Reservation area and arguably the 1836 Treaty Reservation area in the 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 Section 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 (now known as Environment, Great Lakes & Energy), NADP staff, Inter-Tribal Council of Michigan, and EPA. In 2009, GTB attempted to secure Treatment as a State (TAS) and CAA 105 funding. In 2011, GTB had to discontinue its Air Quality Program due to loss of funding under the CAA 103. Although, in 2018 GTB re-affirmed air quality as a Tribal priority in the 2019-2023 EPA Tribal Environmental Plan in support of the importance of Air Quality and other Tribal programs, GTB is working to provide helpful input on air quality to other regional Tribes.

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.

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>





Hannahville Indian Community

Carol Bergquist – Intern Environmental Coordinator

Program in Existence since – 1993

Program Projects – Radon Testing, Indoor Air Quality Education

Location – Wilson, Michigan

Due to COVID and staffing changes Hannahville was not able to be reached for a submission this year. Visit their website at:

<http://www.hannahville.net/>

HANNAHVILLE



POTAWATOMI

KEEPER OF THE FIRE



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's ambient air monitoring efforts continued throughout the pandemic. The Nation's 2020 flow and PEP audits were delayed, due to travel restrictions that prohibited the contracted independent auditor from visiting the sites, but eventually they were completed. As mentioned in previous Journal entries, the Nation's ambient air monitoring stations were established in response to Tribal members' concerns over possible impacts of large frac-sand mining operations on local air quality.



The photo depicts one of the Ho-Chunk Nation's Ambient Air Monitoring Stations (Lower Left) and its proximity to a large Frac Sand Mining Operation. (Upper Right)

On the Indoor Air Quality side of things, the Ho-Chunk Nation's Air Quality Program has observed a decrease in Tribal Member requests for mold investigations, radon testing, and indoor air quality assessments, since the pandemic began. The Nation has begun utilizing virtual platforms to conduct home assessments for the requests that have been received.

Plans to apply for air quality TAS status are on the horizon for the Ho-Chunk Nation.





Inter-Tribal Council of Michigan, Inc. (ITCMI)

Anthony Rinna, Environmental Specialist

Bill Bernier, Registered Sanitarian

Program in Existence since – 2000

Program Projects – IAQ, Radon

Location – Sault Ste. Marie, MI

Inter-Tribal Council of Michigan, Inc. (ITCMI) has provided support for member Tribes in regards to air quality since 2000. These activities have involved individual and collections of Tribes as well as cooperation with state and federal partners.

Indoor air quality assessments are provided to Michigan Tribes through contracted sanitarian and environmental health services at ITCMI. Assessment requests have ranged from the investigation of air quality in family homes to the investigation of air quality and weatherization effectiveness of large facilities. ITCMI has IAQ trained personnel and a wide range of IAQ equipment to assist Tribes with their specific IAQ needs.

As of late 2019, ITCMI has a Radon Specialist who maintains certification through the National Radon Proficiency Program to perform residential radon testing. ITCMI is currently working with the Bay Mills Indian Community to train BMIC staff to perform in-house radon testing. In the near future ITCMI hopes to offer this service to other Tribes or to include residential radon testing to other Tribes as a contracted service.





Keweenaw Bay Indian Community

Location - L'Anse/Baraga, Michigan

Jane Kahkonen - Air Quality Specialist

Program in Existence since - 2012

Program Projects - Indoor and Ambient Air Quality, Radon Studies, Education, Outreach, and Local/National CAA Issues

The Keweenaw Bay Indian Community (KBIC) is located in the Upper Peninsula of Michigan in a rural area on the shores of Lake Superior within the 1842 Ceded Territory. The Reservation encompasses over 55,000 acres, 17 miles of Lake Superior shoreline, 80 miles of streams and rivers, 15,000 acres of lakes, and 3,000 acres of wetlands. It borders the Village of L'Anse and encompasses the Village of Baraga. KBIC has a progressive Natural Resources Department (NRD) that is responsible for the protection, preservation, and enhancement of our local resources. These include mitigation of all environmental concerns that affect our health, culture, and lifeways. Protecting local air quality is an important component in maintaining the rights that we hold to enjoy the sacred land where we live, subsist, and honor our history.

The KBIC Air Quality Program (AQP) is currently working under its ninth year of EPA Tribal Air Program funding. The AQP continues to grow in accordance with the concerns of community tribal members and values stated in the KBIC Integrated Resource Management Plan of "Preserving the land, air, and water quality without sacrificing sovereignty". Community interests regarding air quality include respiratory health within the home, air contaminants that affect water and traditional food resources, criteria and hazardous air pollutants created by local sources, and open burning on Reservation lands.

In late 2019, KBIC was granted Treatment as a State (TAS) by the EPA under CAA Sections §105 and §505(a)(2). As the first Tribe in Michigan to receive that approval, we hope that our application process has made the way clearer for other Tribes within our state to apply. With 105 funding, we are now able to consolidate our work into our Performance Partnership Grant (PPG) which allows for a permanent and dedicated AQP. With project grant funding we continue to build tribal capacity in areas of concern; most recent being a State Indoor Radon Grant (SIRG) to address excessive radon levels in community homes and businesses.

The COVID pandemic has significantly altered our AQP's ability to safely provide home assessments and public engagement. COVID aside, it is clear that we need to adapt our program to these changing times and create new ways to perform our services via a virtual format. The AQP is currently working on a plan to produce outreach accessibility via video, audio, and literature. Organizations that are among those who have been helpful with achieving our goals are the American Lung Association, Indian Health Services, Healthy Homes Network, Burn Wise Program, and the Michigan Department of Environment, Great Lakes, and Energy. Networking with other tribal air programs, attending ITEP trainings, and member of NTAA have been invaluable to the growth of the AQP. <http://nrd.kbic-nsn.gov/air-quality>





Lac Courte Oreilles Band of Lake Superior Chippewa

Brett McConnell – Environmental Specialist

Program in Existence since – 2000-2005

Program Projects – Radon Monitoring/Mitigation, NADP Network, Mold

Location – Northwest Wisconsin

Due to COVID and staffing issues Lac Courte Oreilles was not able to be reached for a submission this year.

In their 2019 submission they highlighted their ban of vaping products on Tribal property. Below is an excerpt -

“Due to the adverse health effects related to use of electronic smoking devices and vaping-related products, the Lac Courte Oreilles Tribal Governing Board took action Monday, Oct. 7, 2019, to protect the health of its tribal membership, including the youth, voting unanimously to ban the sale of vaping products in all Tribal retail outlets and the use of said products on all Tribal property, which includes government buildings, educational facilities and commercial enterprises.

Tribal Chairman Louis Taylor said the health of all Lac Courte Oreilles members must be safeguarded from potentially harmful and unsafe products and by keeping these products off the store shelves at LCO retail outlets and preventing their use on Tribal property, the Tribe is taking the necessary and important steps to keep our children and our community safe and to prevent exposing our people to these dangerous chemicals in the future...

...All seven members of the Tribal Governing Board agreed this is a health crisis due to the outbreak over recent months and urgent action was required. The LCO Legal Department will be drafting an ordinance outlining enforcement action of the ban on vaping products. Currently, employees of the Tribe are permitted to smoke only in designated areas; smoking is currently prohibited in any Tribal owned vehicle, and in any government building designated as a workplace.”





Lac du Flambeau Band of Lake Superior Chippewa ~ Waswagoning

Dee Ann Allen-Environmental Program Manager

Program in Existence - 2008

Program Projects – Climate Change, IAQ, Energy Upgrades, Solid Waste Recycling, COVID Incident Command, Education and Outreach

Location -Lac du Flambeau, Wisconsin

Program Initiatives: Climate Change Adaptation and Resiliency & Pre-Hazard Mitigation, Energy Planning Initiatives:

Throughout the COVID epidemic our Tribe utilized initiatives within our Climate Change Resiliency/Pre-Hazard Mitigation plan to address many of the concerns related to this outbreak. Part of the plan addressed community health outbreaks and we (Incident Command Team and Tribal Council-Administration) were more prepared to implement and take the necessary actions needed to minimize the impacts to our Tribal community. Indoor air quality concerns along with medical household wastes remain a huge COVID related issue for households, businesses and offices. The need for funding and communication outreach remains.

We will continue to proceed with the Climate Change-Energy initiatives utilizing Tribal Ecological Knowledge (TEK) as a basis to encompass integrated approaches in our plan.

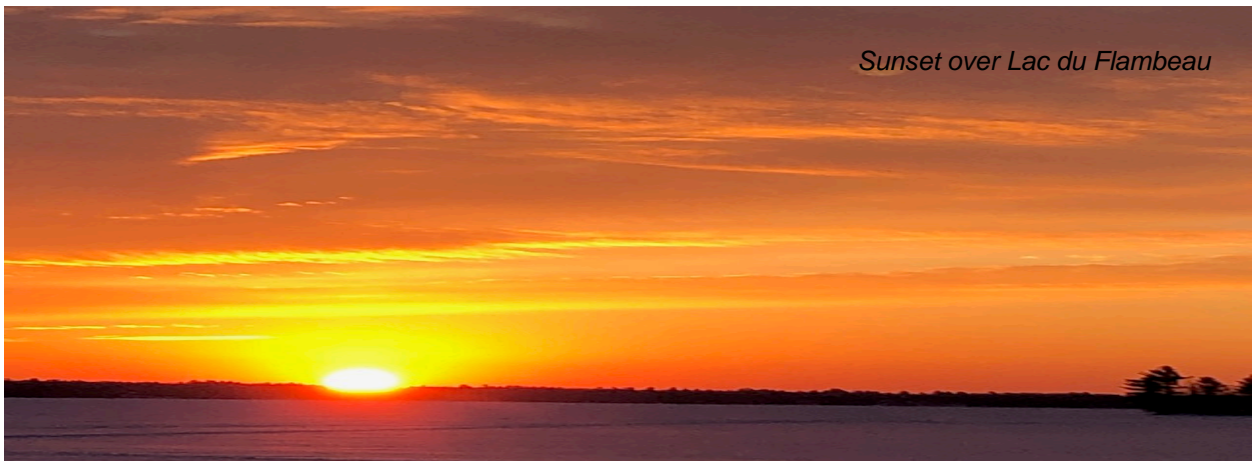
General Air Quality Protection Concerns:

Our Tribe continues to fight for air quality protections against accumulative and direct air pollution and degradation impacts affecting our Reservation and Ceded Territory resources by proposed mining, pipelines and other industrial proposed projects these with the combination of climate change, chemical trails, PFAs, COVID and lack of funding for TAS and Air programs continues to be a huge challenge to address air quality concerns.

Indoor Air Quality Concerns:

Dealing with COVID only highlighted the need to deal with all indoor air quality concerns impacting households such as tobacco, synthetic drug, meth, woodsmoke, mold and poor ventilation issues. Outreach education is conducted, however the need for funding to mitigate homes is needed. On a positive note we did conduct a woodstove exchange program that served 20 households to be able to have an energy efficient and reduced emissions impact to indoor/outdoor air.

Sunset over Lac du Flambeau





Lac Vieux Desert Band of Lake Superior Chippewa Indians

Beth Schrader – Environmental Officer

Program in Existence – No formal program

Program Projects – IAQ

Location – Watersmeet, MI

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 border. Lac Vieux Desert has 749 enrolled members. The Reservation is composed of 1140 acres of fee land and 339 acre held in trust by the United States Government for the community. The 9-member council is an elected body, whom is selected through the election process to govern the Tribe.

The Lac Vieux Desert Band has had a difficult time getting members on board with having indoor air inspections done on their homes. Since the IAQ courses were completed for both level 1 and level 2, only a handful of inspections have been complete. With that being said, it was decided to shift our efforts to the water.

More research is being done on the streams and lakes adjacent to Lac Vieux Desert. We are working on the general water quality aspects under CWA 106. There are various projects going on with wetland restorations, road improvements to culverts, and beaver control to restore the streams for adequate stream flow. We are also looking at our historic rice bed on Lake LVD and how we can restore the wild rice.

Due to the pandemic, things at LVD have been on hold as well. Office time was limited to a few hours a day, leaving it where staff was only allowed full days in the office while conducting field work. Things are still at a standstill for many projects including IAQ and water sampling. We are hoping next year to be able to return to some of our normal activities.





Leech Lake Band of Ojibwe

Carma Huseby–Air Quality Spec. Brandy Toft–Environmental Dep Dir.

Program in Existence since – 2001

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

Location – north central Minnesota, HQ located in Cass Lake, MN

The Leech Lake Band of Ojibwe (LLBO) continues to build program capacity, develop and enhance its Air Quality Program (LLAP) to protect human health, cultural and trust resources within the Reservation's 865,000 acres.

Leech Lake's goal of sustainability continues with seven electric vehicle chargers, 260 kW of solar PV, of which 200 kW serves low income households, and a multiyear 22 building Guaranteed Energy Savings Project that will provide \$265,162 on average in energy savings and reduce 2,030 metric tons of GHG emissions per year. A solar strategy plan, a Risk and Climate and a Sustainability Strategic plans were commissioned. To solidify the above effort and other sustainability actions we are writing three policies for: Approaching Net Zero, Building Solar Ready and Electric Vehicles.

The LLAP operates ambient air monitoring sites for Hg (wet deposition and finalizing 5 years of litterfall), BAM1020 PM_{2.5} and meteorology. The BAM is integrated into the Minnesota's PQAO and Air Forecasting Network and can be viewed real-time at <http://www.smogwatch.com/minn/realtimedata.cfm> <http://www.pca.state.mn.us/air/current-air-quality>. This provides Tribal members with real time information to allow them to make better health choices based on the air quality forecast. Collaboration with the MPCA has been beneficial for both entities. MPCA has provided technical assistance, remote data collection and QA/QC. The LLAP also paired a BloomSky camera with the BAM which is a weather camera station that measures temperature, humidity and barometric pressure. This also allows Tribal members to see live conditions and take precautions when PM levels are high. <https://map.bloomsky.com/weather-stations/faBiuZWsnpapmKqr> The LLAP is also soon installing four PurpleAir sensors across the Reservation and joining the PurpleAir Wildfire Smoke Management network with the State/USFS. Leech Lake's monitors provide data and fulfills a data gap that Leech Lake has had concerns about for years and is now acknowledged. Monitoring is a priority and has continued throughout COVID.



Other work in 2020 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 iron ore mines clustered within or near our 1855 Ceded Territory. The LLR has approximately 68 minor sources that exist within the Reservation boundaries. We also have 8 pipelines (6 oil and 2 natural gas) traversing the Reservation. 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, 505 2a in October 2007.

LLAP is engaged on local, regional, and national venues {NTAA Vice-Chair, R5 RTOC, TAMS, NRAP, CRCPD, MTERA Chair (MTERA.org)} and shares that information in the form of data, education, and outreach to and for Indian Country.

The LLAP is funded by a unique Air Media PPG combining our 105 and Radon SIRG grants. The LLAP looks forward to building and expanding capacity to better serve LLBO, while working with partners to leverage resources and promote air quality issues in Indian Country.



Little River Band of Ottawa Indians

Thomas Shepard – Air Quality Specialist

Allison Smart – Environmental Division Manager

Program in Existence - 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.

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

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

In August of 2020, LRBOI finished re-siting its air monitoring equipment in a new building shared with other Tribal operations and in a location very near its original location. The new air monitoring station represents the beginning of a new era of ambient air monitoring for LRBOI. LRBOI plans to continue to provide acceptable and reliable meteorological, ozone and PM_{2.5} data.

LRBOI's Website www.lrboi-nsn.gov



1. *Relocated Met Tower and PM_{2.5} Monitor*
2. *New Ozone Tower*
3. *New AMS Location*





Little Traverse Bay Bands of Odawa Indians

Jon Mauchmar – Environmental Specialist – Air Quality

Program in Existence since – 2004

Program Projects – IAQ Education/Outreach, Renewable Energy/Energy Efficiency, mercury sampling, capacity building, past O₃ and PM

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. The current Air Quality Program is run by one Environmental Specialist and funded 75% by EPA 103 Air grants. 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. Energy audits for LTBB owned buildings were conducted from 2014-2017. 2 solar arrays totaling 50 kW were installed in 2016 and 2018 to reduce energy production emissions. The Program is currently applying for a Department of Energy grant to fund construction of an 80 kW solar array at LTBB's apartment complex.

In 2020 we will try to assist LTBB Housing with IAQ issues remotely to prevent spreading COVID-19. Through such consultation, the Air Quality Program is able to help LTBB Housing locate areas in need of repair, cleaning, and preventative maintenance that will increase IAQ. Due to the tight building envelope designs used in our area, mold and ventilation are constant issues for LTBB IAQ. In 2020 our Program began working with Region 5 EPA staff to set up a woodstove change-out demonstration project to improve wood burning efficiency, ambient air quality, and indoor air quality.

LTBB continues to sample deciduous leaf litter to analyze the presence of atmospheric mercury in our area. Sample analysis is conducted by the National Atmospheric Deposition Program (NADP). Bioaccumulation of mercury is a concern in our area as fish and wild game are mainstays in the diets of the Odawa and many others in Northern Michigan.



LTBB leaf litterfall containers (fall 2020)



Lower Sioux Indian Community

Deb Dirlam – Director, Office of the Environment

Program in Existence 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 1,923 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 LSIC operates business enterprises such as a casino/hotel and other establishments. Approximately 982 Tribal members live on the Reservation in 150 single family dwellings and 8 duplex rental units. The regional land use is predominantly agricultural, and several Tribal Members hold assignments to farm.

The Lower Sioux Community does not currently have an air grant through EPA. However, the Lower Sioux Office of the Environment (OE) staff is involved in Air Quality-related activities such as providing education and outreach to the Community Members and Lower Sioux Departments. The Lower Sioux OE staff continues to coordinate the Climate Adaptation and Renewable Energy Committee -CARE (the former Renewable Energy Advisory Committee, established in 2016). This Committee assists in climate adaption and renewable energy development including advising on topics such as climate resiliency. OE staff continues to work on developing a Climate Adaptation Plan. Concerns continue from a construction mid-size confined animal feedlot operation (swine) located near (<0.5 mi) from the Lower Sioux Indian Community. Anticipate future work to address the impact on air quality for LSIC residences and medical/cultural plants as the project is now operational.

Air Projects/Programs for FY 2020-2021

- Open Burning, Barrel Burning, Fire Prevention, Permitting
- Mold/Moisture technical assistance to Housing; working with residences affected by flooding
- Research on air quality concerns related to feedlot operations
- Education on Carbon Monoxide, Mold/Moisture, Asbestos, Pests, Weatherization, and Radon





Match-E-Be-Nash-She-Wish Band of Pottawatomis Indians

Shawn McKenney, Environmental Specialist

Program in Existence - 2003

Program Projects - Conservation Incentive Program, Emissions Inventory, Indoor Air Quality, Alternative Energy Projects, Radon, Climate Change Adaptation Planning

Location – Shelbyville, 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 588 enrolled members. The Reservation is composed of 735 acres held in trust by the United States Government for the Tribal community and possesses no exterior boundary.

The Tribe continues to provide indoor air quality retrofits through the Conservation Incentive Program. These retrofits are funded through the Tribe's general budget and the Program is managed through the EPA performance partnership grant. <https://gunlaketribe-nsn.gov/departments/administration/environmental/direct-services-program-offerings/> Radon mitigation rebates were added to the Program in 2020. Mitigation retrofits are now funded up to \$1,000 per resident. During the pandemic, the Tribe cancelled "in-house" indoor air quality audits for all Tribal citizens. The Tribe increased air quality education through Facebook/Instagram posts and monthly newsletter articles. Many of these articles portrayed the benefits of air quality during the pandemic. The Tribe continues to gain training and air quality equipment to grow capacities and nizhokmēwak Nokmēsksinan "protect Grand Mother Earth" for the next seven generations. Mnoyén- Gun Lake Tribe

INDOOR AIR POLLUTION?
By: Nikki Yargeau

What is air? Why is it so important? Air is mostly gas that is made from a mixture of different gases. In the Earth's atmosphere, air is made of approximately 78% nitrogen and 21% oxygen. Air is what we breathe. However, while air is extremely important to our health, we do not think about taking care of it like we do our health and our bodies. Most of the time, we think of air pollution as an outdoor problem that only occurs in cities- things like smog, ozone or haze hanging in the air. Unfortunately, the air in your home, office and other buildings is often two to five times more polluted than the outside air. This air pollution is from lead (found in house dust), formaldehyde, fire-retardants, radon or chemicals (from conventional cleaner fragrances). It can even be tracked into the home through a new mattress or furniture, carpet cleaners or paint on the walls. Most commonly, home air pollution is associated with dust mites, pet dander and mold. Inadequate ventilation can also contribute to the pollution indoors by trapping allergens and pollutants inside thus preventing outdoor air from diluting the pollutant emissions.

The most effective way to improve indoor air quality is to eliminate the individual sources of pollution or to reduce the emissions and it is more cost effective than simply increasing ventilation. Sources that contain asbestos, for example can be sealed or enclosed but others like gas stoves can be adjusted to decrease emissions. Other ways to eliminate or reduce emissions include using non-toxic pest extermination methods, getting rid of carpeting (reduces mites), cleaning carpet with a HEPA filter vacuum cleaners weekly and using non-toxic, fragrance-free household cleaners. Following are a list of just a few additional recommendations:

- Change filters regularly
- Let fresh air in
- Stop using aerosol sprays
- Invest in nature, bring household plants to any room
- Test for radon
- Install carbon monoxide alarms
- Purchase or make your own alternative "green" house cleaning products
- Smoke outside
- Change your furnace filters four times a year with HEPA filters
- Reduce or eliminate candles or incense
- Groom pets regularly
- Fix leaks immediately, eliminate mold
- Use exhaust fans and range hoods, make sure the dryer exhaust is vented to the outdoors and is not blocked

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Gun Lake Tribe
April 7 at 1:12 PM · 🌐

There are some benefits of everyone staying at home. Did you know that air pollution around the globe has been reduced since the onset of COVID-19? In New York, carbon monoxide mainly from cars has been reduced by nearly 50% compared to last year. People are staying home and industrial fossil fuel burning has decreased. Air pollution reduction, even for a short time, can make a difference.

<https://www.nytimes.com/.../climate/coronavirus-pollution.html>

2019 **2020** More NO₂ →

CHINA Wuhan CHINA Wuhan

NYTIMES.COM
Watch the Footprint of Coronavirus Spread Across Countries
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👍👍👍 Cassandra Bush and 12 others

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Menominee Indian Tribe of Wisconsin

Jeremy Pyatskowitz - Environmental Services Director

Program in Existence – 2000-2010

Program Projects – Past: Acid Rain, Hg, Radon

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 Region 5 103 air grant. We participated with the National Atmospheric Deposition Network for laboratory work and reporting, after 2006 we no longer participated in the acid rain monitoring due to funding cuts, however we were able to keep monitoring for mercury until March 2010. Mercury was continued longer as we filled a data gap within the state. 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.

The Tribe annually collects fish for mercury samples. A future goal would be to be able to have an Air Program that would allow mercury samples collected and then combined with the fish samples to have a better correlation of mercury within the Reservation.

Radon testing back in the 1980's and 1990's showed many of the homes on the Reservation with elevated radon levels. In 2009 the Tribe received a grant to do more radon testing on the Reservation. Our Program provided technical assistance to homeowners who wish to install remediation systems. With the grant we were able to test many of the Tribes housing units and remediation systems were then installed by another agency within the Tribe. There is a need for continued monitoring of indoor air quality. Current workplans don't accommodate air issues. With needed funding, Menominee Tribe would be able to hire a staff member to work solely on air issues.

Currently there is not an Air Program within the Reservation, but the Tribe is considering obtaining TAS Authority under CAA Section 105, and will be considering applying for more funding to meet this goal.

For most of the year, Departments have been working from home due to COVID. Just recently staff have been able to come back into work at 50% capacity. This has put all field work, report writing, and grant writing behind.



Keshena Falls on the Menominee Reservation



Misi-zaaga'igani Anishinaabeg ~ Mille Lacs Band of Ojibwe

Charles Jirō Lippert – Air Quality Specialist

Program in Existence since – 1996

Program Projects – O₃, IAQ, MTERA, PurpleAir

Location – east-central Minnesota

The Tribe began its Air Quality Program in September of 1996 with the constitutional reform of the Mille Lacs Band of Ojibwe. In the beginning, our elders knew of what the Air Program should address and made it part of the Tribe's statutes, but had no way of addressing our concerns, only hoping our vision would come together in the future. At the same time, Minnesota was under pressure to provide a determination for CO and asked for partnership with the Tribe. From this partnership, the Tribe eventually got assistance from CAA 103 grant funding through EPA. From our humble beginnings of CO monitoring, we moved to monitor for PM₁₀, then for PM_{2.5} and O₃, only to find we were down-wind transport recipient of metropolitan Minneapolis-St. Paul's air pollution. This led the Tribe to begin monitoring for meteorological conditions, monitor for speciated PM_{2.5} and for Hg. Today, the tribe's Air Quality Program operates under CAA 105, continues to monitor for O₃, assess PSD air permits issued by them that may impact our peoples and natural resources, work on air quality aspects of climate change, 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 IAQ for domestic and industrial safety and hygiene.

In order to holistically achieve air quality protection, the Air Quality Program actively engages addressing air quality improvements at all levels—personal, indoor, outdoor, local ambient, regional ambient, and international ambient—while ensuring the Band-members are not dispossessed of their right to clean, healthy air. Band will be seeking re-designation as Class I air-shed, and restore Hg, Met, continuous and speciated PM_{2.5} monitoring to characterize, model and inventory air pollutants affecting the Tribe's air-shed, as the Band continues to cooperate with the Minnesota Pollution Control in monitoring for O₃. Together with other Upper Midwest Tribes, the Air Quality Program participates with the Midwest Tribal Energy Resources Association (MTERA) to map out the Band's energy future. With impacts from COVID, the Band's Air Quality Program operated in a minimal bases, but was ramped back up in order to meet the programmatic obligations to its citizens. Still with many other staff laid off due to COVID, the Air Quality Program assists in conducting Tribal Historical Preservation Office (THPO) review of pending permits, and assists THPO in drafting comments. Additionally, through citizen-led PurpleAir low-cost air particle sensor network, the Air Quality Program in 2021 will be assisting the Band's Minisinaakwaang Leadership Academy located in remote northern Minnesota to have air quality education in air particulate trends as part of the school's science curricula, in order to keep students safe and connected to the school remotely.

Mille Lacs Band of Ojibwe

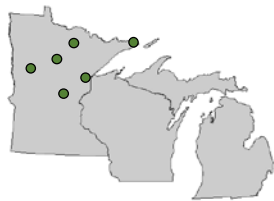
<http://www.millelacsband.com>

Chief Executive: Melanie Benjamin

Commissioner of Natural Resources: Katie Draper

Director of Environmental Programs: Perry Bunting





Minnesota Chippewa Tribe

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

Program Projects – Capacity Assistance

Location – On and Off Leech Lake, White Earth, Bois Forte, Fond Du Lac, Mille Lacs, and Grand Portage Reservations, 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, that 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 (MCTEP) provides capacity assistance as needed for core Environmental Programs of the Bands that utilize EPA grants. The MCTEP develops projects to assist in the protection of MCT land both on and off the 6 component Reservations. This requires protecting the quality of the water, air, and land resources by supporting the basic infrastructure of the Bands that make up the MCT. The MCTEP assesses a wide variety of potential project areas such as tribal waste management (TWM), pollution prevention, emergency response planning, water quality management, air quality management, and education and outreach activities. The MCTEP has been conducting on-site compliance assistance for the Bands that have HHW programs. The reason for the visits is to document programmatic need for additional resources in order to build capacity for these important programs. The MCTEP will also be assisting the MCT Bands in acquiring PPE (personal protective equipment) for their staff that directly handles HHW. The goal is to ensure the proper storage, transfer, and disposal of HHW, as well as, advancing the safety of TWM workers and the community.

The MCTEP 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 MCTEP 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 – Radon, Emission Inventory, PM

Location – Pine Creek Reservation near Fulton, Michigan

The NHBP Air Program serves approximately 1,600 Tribal Members, and is located on the Pine Creek Reservation in southwest Michigan. We do not receive any air-specific funding. We run eligible components of our program with EPA GAP funds, and the rest with Tribal general funds.

Radon Testing and Mitigation

To date, NHBP-managed structures have had 197 tests and 28 mitigations, and show average radon levels of 1.7pCi/l. We planned to have three homes that still test above World Health Organization recommended levels (2.7 pCi/l), mitigated by summer of 2020; however, the COVID-19 pandemic has changed our time line. With minimal in-office time, we were able to revise and submit our Radon QAPP for EPA review. Review Comments are pending.

Emissions Inventory

Pine Creek Reservation is located within a watershed that contains agricultural land use in excess of 70%. Pesticides, herbicides, manure, dust, and oil and gas wells are sources of concern. We are curious what the prevailing westerlies are blowing onto the Reservation. The COVID-19 pandemic has not impacted our efforts to complete an EI. We have begun online training from teleworking stations through the Institute for Tribal Environmental Professionals (ITEP).

Purple Air (PA) Community Screening of Particulate Matter (PM)

NHBP is particularly interested in particulate pollution because it impacts community health. The majority of PM monitors managed by the State of Michigan (~70%) are in southeastern counties. Studies from reputable air quality control agencies indicate high levels of correlation between PA sensors and expensive, commercial-grade sensors used by EPA. In 2020, we constructed protective housings for an additional six PA monitors and sited one at a Tribal Member home in northern Michigan. The other five are ready to place in other counties with an NHBP presence.

NHBP Environmental Dashboard

The Department created a comprehensive community outreach tool called the “NHBP Environmental Dashboard”. The dashboard displays local environmental conditions and highlights Department Program areas. It includes local, live weather and PM and water quality readings, and has an interactive map of Tribal parcels, local radon and environmental assessment actions. The particulate matter screenings from our local PA monitor (housed at the government campus) are used to create a unique NHBP Air Quality Index. In 2021, we include the other six PA monitors’ data into our AQI, and continue to enhance the dashboard for our membership. <https://www.nhbpi.org/environmental/>





Oneida Tribe of Indians of Wisconsin

James Stigen - Environmental Area Manager

Program in Existence since – 1988 Environmental, Health & Safety

Division established

Program Projects –Climate Change Adaption, Energy Conservation

Location – Oneida, Wisconsin

From October 2019 through March 2020, Oneida responded 158 indoor air quality concerns conducted 64 indoor air quality assessments. This included 36 radon evaluations, 4 mold assessments and 20 asbestos assessments. On March 13, 2020, due to the COVID Pandemic, the Oneida Nation declared a public health state of emergency and the implementation of Tier V budget controls. This impacted the ability to continue to conduct indoor air quality assessments and mitigation due to budget constraints and social distancing policies.

To address the budget considerations that resulted from the financial impact of COVID the Oneida Nation has applied for Clean Air Act Section 103 funding. If awarded it will address the immediate needs associated with asbestos, mold assessments and mitigation.

The Oneida Nation is seeking funding to support staff and contractor costs to respond to indoor air quality concerns and complaints, previously these activities were funded through Oneida Nation funding. Due to the coronavirus pandemic of 2019 public health state of emergency and implementation of strict budget controls this program was eliminated. The Nation's response also included stay at home recommendation, temporary closure of Oneida Nation offices and staff telecommuting. Other impacts include:

- Layoffs and loss of key environmental technical and management staff;
- Increase in Oneida Nation members requesting assistance; and
- Unmet service needs including responding to, and mitigation of, indoor air quality issues.

The Oneida Nation is committed to providing safe indoor environments for its citizens. Evaluating and prioritizing environmental programs that support this commitment align with the Oneida Nation's priorities of safe housing, protecting human health and the environment, and protecting critical infrastructure.

Due to the COVID pandemic, Oneida Nation citizens are spending more time indoors at their homes and many are working from home. Sources for indoor air pollution are diverse, ranging from radon, mold, moisture, improper venting of combustion sources, improper maintenance and operation of heating sources, smoking, as well as the types of cleaning products used in a home.



Coyote Run wetland summer and fall.



Pokagon Band of Potawatomi Indians

Jennifer Kanine – Department of Natural Resources Director

Kyle Boone - Environmental Specialist

Program in Existence - 2000

Program Projects - Comprehensive Planning, Testing Air Sensors, Emissions Inventory, IAQ

Location - Dowagiac, MI

The Pokagon Band of Potawatomi Indians (Pokagon Band) was restored to federal Tribal status through congressional act on September 21, 1994. Instead of a Reservation, the Pokagon Band was mandated a service area that consists of four (4) counties in the southwest lower Michigan and six (6) counties in north central Indiana. The Band is the only federally recognized Tribe in the state of Indiana.

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

Given staffing limitations this year, many annual air related activities had to be postponed. For example, the Pokagon Band typically monitors air quality in newly or recently acquired buildings before they are deemed safe for human habitation. If a building is deemed unsafe, that building is scheduled for demolition. Both activities are being pushed to 2021.

Nevertheless, in 2020, the Pokagon Band Department of Natural Resources (PBDNR) submitted its Level IV Emissions Inventory (EI). PBDNR finished a draft EI in early 2020. The EI analyzed emissions in and around four separate clusters of trust land: Hartford, MI, Dowagiac, MI, New Buffalo, MI and South Bend, IN. The report was submitted to EPA in March for review and approval. EPA has submitted the EI to ITEP for further review.

PBDNR has also began monitoring air quality using a Tribally purchased PurpleAir sensor. The sensor is located on the PBDNR campus in Dowagiac, MI. So far, data has been inconclusive. There have been some technical difficulties with the sensor that are currently being worked through. PBDNR is hopeful that monitoring capabilities will be improved with the installation of a weather station with air sensors. The station should be installed in late 2020 or early 2021.

PBDNR has continued actively reviewing prevention of significant deterioration (PSD) permits to ensure that outdoor air quality in the Pokagon Band's service area is not degraded further. Future endeavors regarding air quality include troubleshooting current air sensors and possibly expanding the use of outdoor air sensors to other clusters of trust land.





Prairie Island Indian Community

Gabe Miller - Environmental Programs Manager

Program in Existence since – June 2014 to October 2017

Program Projects – IAQ, Outreach, Radiological Monitoring

Location – Welch, MN

Prairie Island Indian Community (PIIC) is located between the Mississippi River and Vermillion River in southeastern Minnesota, approximately 45 miles downstream of the Twin Cities. The area was named Prairie Island because it is surrounded on all sides by water and was once dominated by native prairie and oak savanna habitats. Prairie Island is now composed of more than 5,000 acres of Trust and Fee land, with a variety of land uses and covers.

In 2014, PIIC established an Air Quality Program under the EPA CAA 103 grant funding. Projects implemented under this funding included IAQ inspections, radon testing, Level 4 EI, air quality flag program, and outreach/education. The formal CAA 103 Air Program was terminated by the Tribe in late 2017. Despite this, the Land and Environment Department continues Air Program work as much as allowable under the GAP workplan such as continuing the radiological sampling that has occurred since 1993. Additionally, Prairie Island Healthier Environments Policy was established in 2017 prohibiting the use of all commercial tobacco products including E-cigarettes within 50' of all building entrances and outdoor recreation areas. This policy was supported under the Minnesota Department of Health's Tobacco Free Communities grant program.

Xcel Energy's Prairie Island Nuclear Generating Plant is located just three blocks away from the community with spent fuel casks storage on-site, which is a high priority concern for the community. In late 2019, an updated air sampling unit was installed to monitor environmental gamma radiation in order to address concerns from community members. This updated monitor was supported through BIA funding and continued operation of a 2015 particle radiation monitor is ongoing.

Tribal land is located in a high risk zone for radon and flooding, contributing to indoor air concerns. Testing for radon in Tribal community homes and combating mold growth has been important and was previously conducted under the Tribe's Emergency Management Department and Housing Departments through MDH testing kit support, though this project has also been halted. Acquiring funding for remediating issues would be necessary to re-start the official Air Program and address other IAQ concerns.





Red Cliff Band of Lake Superior Chippewa

Ernie Grooms - Air Quality Program Manager

Linda Nguyen - Environmental Director

Program in Existence since – 2010

Program Projects –IAQ, EI, VW Settlement, PM_{2.5} Study

Location – Bayfield, WI

The Red Cliff Band of Lake Superior Chippewa (Band) is located on the Bayfield peninsula in the Northern most point of Wisconsin. We are surrounded on three sides by Lake Superior and enjoy a relatively undeveloped forest of hardwood and pine to our south. As we are located so far to the north, the lack of heavy industry makes our area not only unique, but an area much sought after for the nature enthusiast with hiking, boating, and fishing in the summer months, to snowshoeing, skiing, and leisure during the winter. More importantly, the beauty within and around Red Cliff Reservation 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 tenth 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, participation in the Eligible Vehicle Mitigation Action (VW Settlement), and studying PM_{2.5} within Tribal exterior boundaries using the Met One E-Sampler Light Scatter Continuous Aerosol Monitor. The Band's Health Center recognizes the increase of asthma and allergies within our community, especially among our children.

Serving as the lead for the National Tribal Air Association's (NTAA) IAQ Work Group, the Air Program has been working in concert with the Tribal Healthy Homes Network, Healthy Homes Partnership, the Institute for Tribal Environmental Professionals (ITEP), and EPA in producing Healthy Homes Guidance's for Tribal Families, Leadership, Medical Professionals and Housing Professionals. These Guidance's can be found on the NTAA website under IAQ Work Group. Also, the Band's Air Program and NTAA are currently working with these entities in providing informational webinars for the re-opening of Tribal Buildings during the COVID Pandemic, of which two complete webinar series are available on the NTAA website. Current collaboration with the Red Cliff Community Health Center staff is ongoing during the COVID Pandemic as it pertains to Indoor Air Quality.

The Program has received continued funding through CAA – 103 since 2010. Funding ensures the Band's participation in local and regional issues, while furthering our ability to protect our people and our way of life.

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





Red Lake Band of Chippewa Indians

Jennifer Malinski – Environmental Specialist

Program in Existence since – 2007

Program Projects – CASTNET, PM_{2.5}, Hg Leaf Litter, Outreach

Location – Red Lake, MN

The Red Lake Reservation is a federally recognized closed Reservation encompassing over 835,000 acres of north-central Minnesota. The Reservation is the largest within EPA Region 5, comprising greater than 59% of the Federal Indian Trust Land of the Region. The Tribe currently has just over 14,000 enrolled members, of whom about 7,500 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).

Red Lake operates and maintains a BAM1020 PM_{2.5} continuous monitor with assistance from the Minnesota Pollution Control Agency (MPCA), a small footprint Clean Air Status and Trends Network (CASTNET) site, and an ammonia monitoring site with the Ammonia Monitoring Network (AMoN). The Program has also collected data on mercury dry deposition as part of the Litterfall Mercury Project with the National Atmospheric Deposition Program (NADP) for several years. The Air Quality Program has worked to create important documents, such as a Tribal Smoke Management Plan (SMP) and Emissions Inventory (EI) documents, including a draft Greenhouse Gas EI.

Red Lake has replaced two older diesel vehicles and is in the process of replacing two additional diesel vehicles with Volkswagen settlement funds. These funds were also used to install four electric vehicle charging stations on the Reservation. Red Lake has partnered with MPCA to provide woodsheds to Red Lake community members and to install a PurpleAir sensor in the near future.

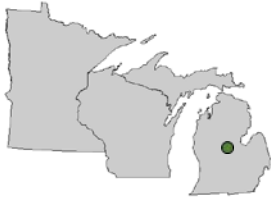
Although ambient air quality has been the main focus, indoor air quality (IAQ) remains a concern. Basic IAQ home assessments of homes on the Reservation are available upon request, though this has been put on hold due to COVID.

In the coming year, a community survey will be done to collect opinions on where to focus our time and attention as far as which air quality issues are of most concern. Prioritizing concerns will help us shape the Air Quality Program to better serve the Red Lake communities. Other community outreach will continue.

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

Due to the global COVID pandemic some staff members were laid off from March-June 2020. In June when work was resumed changes were made to make the workplace safer. These changes included: wearing face masks in common areas, online health checks, temperature checks and governmental operations is currently open to “appointment only”. The pandemic has made it challenging to work, because things tend to take a longer time to complete now due to many factors. Thus many projects have been delayed.

To shine a bright spot on this year, the State of Michigan currently has a House Bill No. 6323 in the Government Operation Committee that would make wild rice the official native grain for Michigan. Wild rice is sacred and culturally significant to Michigan Tribes and it is important to the biodiversity of the lakes and rivers it is associated with.

Please visit their website at sagchip.org





Sault Ste. Marie Tribe of Chippewa Indians

Robin Bouschor – Environmental Specialist

Program in Existence since – 2016

Program Projects – IAQ, TAS, VW Diesel, Outreach, NADP

Location - Sault Ste. Marie, Michigan

The Sault Tribe of Chippewa Indians (Sault Tribe) is found in the beautiful eastern Upper Peninsula of Michigan. The Sault Tribe Environmental Program has been undergoing steady growth in its capacity to take on environmental regulation, including air quality work since 2016.

This year the Tribe suffered along with the world the effects of the COVID pandemic. The Tribe and the State of Michigan declared a state of emergency in March 2020 and a lockdown was implemented. The Environmental Department staff had to shift from working in the office to working at home. The sudden change proved to be challenging with staff members having school age children in the home, no work laptops to be able to access the Tribal network and some workplan objectives being put on hold until the lockdown was lifted. However, the Department was able to adjust and overcome these obstacles to serve its Tribal members.

To help Tribal members with indoor air quality (IAQ) issues the Air Program developed a QAPP to investigate IAQ complaints. This has led the Environmental Specialist being able to perform IAQ assessments to Tribal member's homes and Tribal Buildings. Due to the COVID pandemic the IAQ program had to adapt, this included updating the QAPP to be able to perform virtual IAQ assessments when applicable.

Outreach and training events had to be modified to accommodate the new health/safety procedures. The Environmental Specialist, Robin Bouschor, was able to reach youth through school distance learning platforms by working with teachers in developing air quality related google meets lessons specific to the grade level. This included playing virtual air quality bingo game, a short interactive presentation, and demonstrating the various IAQ instruments currently being used in the IAQ program.

The Tribe is moving forward with the third funding cycle of the VW settlement. This is allowing the Tribe to replace an older diesel truck with a newer cleaner diesel. The Tribe has already participated in the 2nd funding cycle and was able to purchase a new diesel plow truck as a result.

The Tribe is also taking on a new responsibility by operating a National Atmospheric Deposition Program (NADP) monitor. This unfortunately was delayed due to the pandemic, however the platform was just completed and power is in the process of being hooked up. We are hoping to have it fully operational by the end of January.

VW Settlement truck upgrade





Shakopee Mdewakanton Sioux Community

Simeon Matthews – Industrial Hygienist

Steve Albrecht – Operations Administrator

Program in Existence since – 2011

Program Projects – Sustainability, Renewables, Composting, Tribal NSR

Location – Prior Lake & Shakopee, MN

When SMSC was first organized under federal Reservation status in 1969, it was confined to 260 acres of rural land. In 2020 our community covers more than 4,400 acres, south of Minneapolis. That growth has brought many improvements to quality of life for SMSC and our neighboring communities, but also new challenges. We're affected by air pollution from traffic, industry, and even wildfires far away. This year we added a global pandemic to that list.

We've relied on funding from the CARES Act, Bureau of Indian Affairs, and the EPA GAP as we continue responding to this new threat. The Institute for Tribal Environmental Professionals (ITEP) and National Tribal Air Association (NTAA) have been more important than ever this year, keeping us informed of both new challenges and new resources.

Electrical Utility Use

In 2019 & 2020 we installed several electric vehicle (EV) charging stations. It's estimated that an EV in Minnesota will produce about half the emissions of its gas or diesel version. In 2020, our chargers have eliminated ~10,000 kg of greenhouse gas (GHG) emissions on SMSC.

We continued transitioning to LED lighting at our larger facilities this year. It's a very effective "first step" towards reducing our reliance on air-polluting power plants and reduces operational costs in a short time. A small portion of our usage was generated by solar arrays at six facilities.

Our long-term plans may require more renewable energy at SMSC such as solar, wind, and geothermal. Early-on in 2020 we were identifying new approaches to a more sustainable SMSC. When the pandemic hit, we had to pause much of that work. The energy efficiency of our buildings may be our next focus; it reduces air emissions, reliance on utility companies and utility costs.

Food Waste

A lot of the world's GHG emissions come from the food supply chain. The pandemic has meant less air pollution from traffic and less food waste from restaurants, but this is only temporary. Our local area will need a place to recycle food wastes as things return to "normal". Buying only what we need and donating excess to our neighbors is best, but there will always be food waste to compost (or landfill). We're committed to filling that role with our SMSC Organics Recycling Facility, despite significant disruptions to the compost industry. For food that can't be eaten by someone, composting significantly reduces the GHG it would produce in landfill.

Air Quality Permit Programs

EPA's Tribal Minor New Source Review (NSR) program allows us to evaluate air quality impacts at the earliest stages of construction planning. Its permits ensure our emission sources are maintained and monitored for the protection of ambient air quality.

Off-Reservation, the state (MPCA) administers a similar program. In late 2019 & 2020, its Tribal liaison ensured that we were able to participate in the review of construction plans near our community.





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 most known for its productive wild rice lake. Although relatively small, the community is home to beautiful lakes, rivers and forested wetlands. As of now, the Sokaogon Environmental Department does not manage a formal air program. That being said, the Tribe is committed to protecting and maintaining air quality in and around the Reservation.

As all of us know, 2020 was a tough year. COVID came and normalcy went out the window. Projects were put on hold and community events were canceled. Things that were easy, such as meeting with coworkers, became difficult. In some cases, we lost loved ones who can never be replaced.

But this year also taught us a lot about what is important. Every year, the Sokaogon Environmental Department hires Tribal youth to help and learn throughout the summer months. This is something that the youth and employees truly look forward to. There's something about a teenagers excitement that gives you energy! Of course, 2020 put this program in jeopardy. But thanks to careful planning and testing support from the Sokaogon Clinic, we were able to offer a scaled back program to three of our youth. The highlight of this summer was planting 400 spruce, cedar, tamarack and balsam trees along river corridors. It will be a joy to watch these trees grow as they reduce thermal pollution, capture nutrients and act as a sink for carbon.

In past years, the Sokaogon Community installed solar panels and built green homes that utilize geothermal energy for heating and cooling. Moving forward, the Tribe will continue to protect their natural resources for future generations.



Sokaogon youth planting trees





St. Croix Chippewa Indians of Wisconsin

Jamie Thompson- Air Quality Coordinator

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 funding to maintain an Air Program and, in the years that funding was not available, GAP funds were used to maintain basic services to Tribal Community Members. With consistent funding provided by EPA, St. Croix has been able to provide air quality assessments and education to Tribal Members for several consecutive years now.

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

As part of the St. Croix's Air program we provide members with education and outreach focusing on creating healthy homes for the St. Croix Communities. Each time we do a home inspection we give the resident a carbon monoxide detector (if needed) 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.

We are excited to be able to offer radon testing starting this fall from SIRG funding we received under our PPG grant. Many of our homes were tested around 10 years ago for radon so we are interested in retested these homes and comparing radon numbers as well as test homes that weren't tested back then. Do to COVID we are not currently able to go into homes to test at this time but will start testing homes for radon when we are allowed.

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. The major focus of the Air Quality Staff is the Involvement in active R5 initiatives; such as participation in regional dialogue on conference calls, attending regional meetings, performing home assessments and working cooperatively with the Tribal Housing Department to help rehabilitate homes and promote cleaner air for Tribal members and employees.





Stockbridge-Munsee Community Band of Mohican Indians

Antoinette Tourtillott-Environmental Program Coordinator

Program in Existence –No formal program

Program Projects – IAQ, Develop IAQ program, Radon

Location -Wisconsin, between Green Bay WI. And Wausau, WI.

The Stockbridge-Munsee Community Band of Mohican Indians, the “People of the Waters That Are Never Still,” is a federally recognized Indian Tribe which originated in New York’s Upper Hudson River Valley. European settlers moved the Tribe from native lands to a Reservation in Stockbridge, Massachusetts, then on to a location on Lake Winnebago in Wisconsin, and finally to two sections of land carved from the Menominee Reservation in Wisconsin. The Stockbridge-Munsee Community Reservation is currently located in northeastern Wisconsin in the townships of Red Springs and Bartelme in Shawano County. The Reservation has approximately 25,163 total acres with roughly 17,424 held in trust by the federal government and another 7,739 held in fee land.

The Stockbridge-Munsee Environmental Department has a mission to use the latest science to holistically observe, monitor and, when needed, manage the Reservation land, water, animals and plants which they support in order to insure the diversity and purity of these resources for future generations to thrive in wellness. Our vision is following our culturally sensitive ways to incorporate the use of scientific methods in order to live sustainably with mother earth, carefully preserving the natural resources in a pristine condition for the next seven generations to come. Working with our forestry and conservation committees along with other Tribal departments, to protect, maintain and where necessary, improve the health of the natural environment for all species.

The Stockbridge-Munsee Community continues working on the development of an Indoor Air Quality program using General Assistance Program (GAP) funds to aid in this process. The project area will encompass the reservation areas in the Townships of Bartelme and Red Springs, in Shawano County Wisconsin. The Stockbridge-Munsee Environmental Departments duty is to protect all our natural resources including our Air, we are committed to protecting the health, welfare and sovereignty of our members. Also, through our Environmental Department we are committed to furthering Tribal capacity, educating the community, and providing a safeguard to the health and wellness of the Stockbridge-Munsee Community members and local community. We continue to build our relations and address immediate environmental concerns through: educational outreach, recycling, remediation and radon testing.





Upper Sioux Community ~ Pezihutazizi Oyate

Amanda Wold – Environmental Director

Dan Schacht – Environmental Assistant

Program in Existence since - 2012

Program Projects – none

Location – Granite Falls, MN

The Upper Sioux Community (USC) Office of the Environment (OE) does not currently have an air quality monitoring program. An air quality monitoring program in the future is possible and would be a major step for providing site specific scientific data for the USC which could be utilized to compare air quality information between the USC and other Tribes within Region 5 and nationwide. Air quality monitoring is important to understand, monitor, and manage the air quality within the USC Reservation. The USC continues to be engaged with the air quality work within the region by attending monthly EPA Air meetings, reviewing air data for Region 5, and providing community engagement newsletter articles about how to improve indoor and outdoor air quality to the USC Tribal members. In 2019 and 2020, the USC applied for and received Volkswagen Settlement funds to replace two diesel vehicles- one plow truck and a propane truck to implement NO_x reduction measures within the Community.

The USC understands that exposure to poor air quality can lead to increased premature mortality from cardiovascular and respiratory diseases. Among the far-reaching implications of the ongoing COVID pandemic was the EPA decision to implement measures that allow for increased air pollution. At the beginning of the pandemic, CAFE and CO₂ emissions standards were decreased from 5% per year to 1.5% per year which decreased the required fuel economy in model years 2021-2026 from 46.7 mpg to 40.4 mpg. The EPA also relaxed enforcement from March through August 2020. In April 2020, EPA also revised standards in the Mercury and Air Toxics Standards (MATS) rule requiring reductions in hazardous pollutants. Power plant air toxics have been reduced by 96% since MATS was implemented (2012-2016) and has resulted in an estimated 11,000 less premature deaths/year. More than 80 air toxics are emitted by coal and oil-fired power plants and many of them can and were being prevented from being released into the air by measures that most power plants have already implemented. Yet in the EPA's internal cost-benefit analysis, no weight was given at all to the public health benefits of controlling air toxics let alone the reductions in asthma attacks, heart attacks, and premature mortality cause by air pollutions, and this during a pandemic that directly impacts the lungs and cardiovascular systems was shocking. The USC does not believe these actions align with the EPA's mission statement to "protect human health and the environment".

The USC has been working with the Minnesota Pollution Control Agency (MPCA) to review the NO_x and SO₂ emissions from the Southern Minnesota Beet Sugar Coop through consulting with MPCA on their Regional Haze State Implementation Plan (SIP) as required by the Regional Haze Rule (40 CFR § 51.308). Staff continue to review and consult with the MPCA on this ongoing project.

The USC continues to monitor the wildfire smoke situation within the US. The USC OE staff uses the MPCA's Air Quality Index to review air Quality during "mega fire" events such as those in California and Oregon in 2020 as well as to review current conditions. In recent years, wildfires have started to burn bigger and hotter due to climate change, past practices of fire suppression, and expanding populations. Due to the changes happening both regionally and nationally, the USC plans to continue to monitor air quality to provide up-to-date information to the Upper Sioux Dakota Oyate.





White Earth Band of Ojibwe ~ Gaa-waababiganikaag

Jessica Tolifson – Environmental Manager

Program in Existence – No formal program

Program Projects – Radon, Carbon Monoxide, Air toxics

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 protections for the Tribe and its individual members. The Reservation boundaries include 36 townships which encompass all of Mahnomen County and portions of Becker and Clearwater Counties. The area includes five incorporated cities and five major villages.

The Natural Resources Department was established to protect, manage and enhance the resources of the Reservation and is responsible for daily management and monitoring of Tribal resources of the Reservation. Air quality is of great importance to White Earth. Indoor air quality projects are currently in the GAP workplan, however we look forward to the consideration of a formal air program in the future. The current COVID pandemic has made outreach to individuals more difficult in the social settings we are used to such as Tribal events and gatherings. This has resulted in less personal communications in distanced media forms like newspapers and social media. We are looking forward to those face to face conversation's again once we are done with this pandemic.

Healthy Homes environmental education and engagement “Think Green – Live Green” campaign includes the following topics as well as recycling, consumer consciousness, composting and food waste reduction.

Air projects:

- Radon QAPP development and home testing
- Carbon Monoxide education and household CO detector giveaway
- Air toxics and home pollutants education and healthier alternative options





1854 Treaty Authority

Tyler Kaspar - Environmental Biologist
 Program in Existence since – No Formal Program
 Program Projects – Environmental and Permit Review, Policy Review,
 Climate Change, Education and Outreach
 Location – Duluth, MN

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

Bands retain treaty rights to hunt, fish, and gather in the 1854 Ceded Territory. Due to these rights, the 1854 Treaty Authority is concerned about the availability and health of the resources. The 1854 Treaty Authority looks to track air impacts from sources such as power generation units, mining, and other industrial facilities. Taconite mining has had a large impact to the 1854 Ceded Territory, with many projects ongoing and new projects being proposed (see picture of a taconite facility located within the 1854 Ceded Territory). The 1854 Treaty Authority coordinates with federal and state agencies in environmental review and permitting processes and is currently involved in the scoping phase for a proposed copper/nickel mine in support of the Bois Forte and Grand Portage Bands who are also involved. Time is also spent reviewing and commenting on policies that may affect the air quality within the 1854 Ceded Territory.

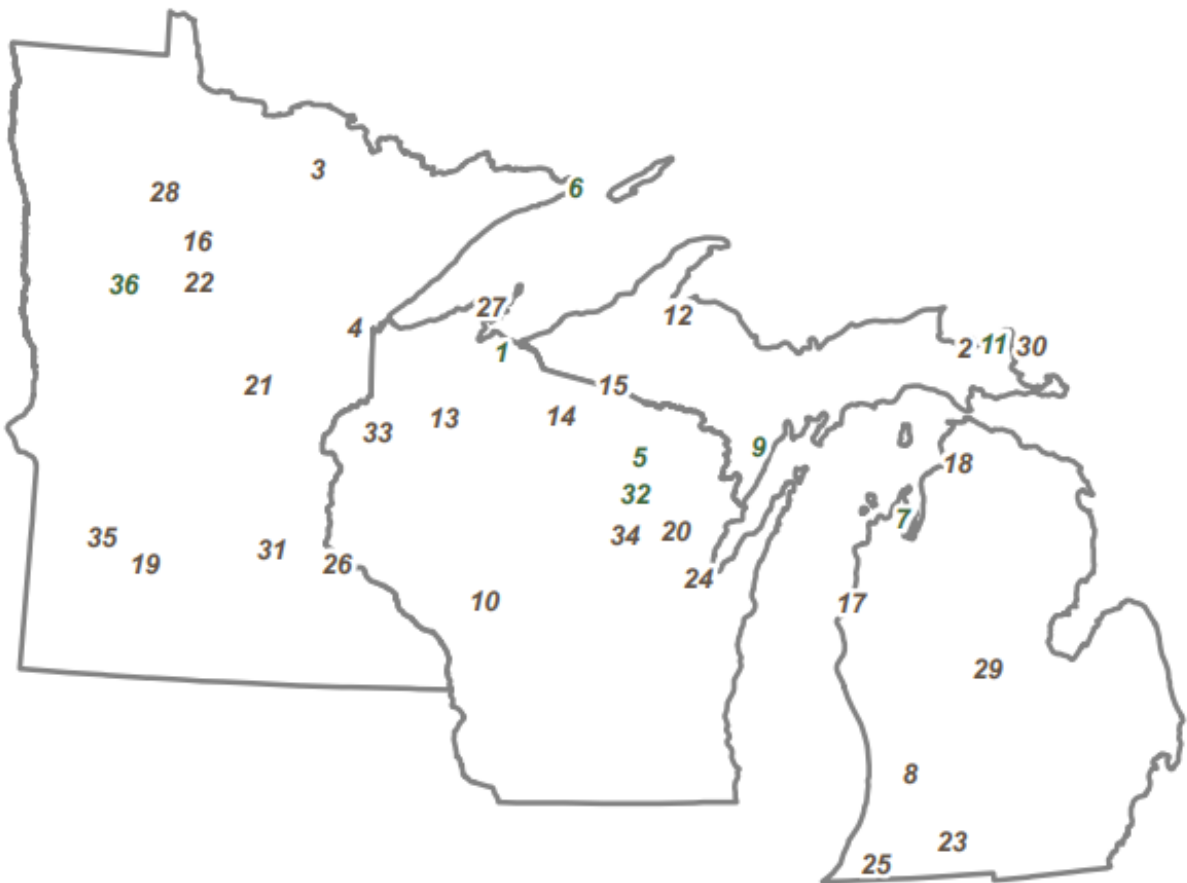
The 1854 Treaty Authority does not have a formal Air Program, but addresses air issues (to some degree) under activities of the Environmental Program as it works to protect human health and the environment. One of these activities is implementing the “*Climate Change Vulnerability Assessment and Adaptation Plan*” that was developed in partnership with the Bois Forte, Fond du Lac, and Grand Portage Bands in 2016. A portion of the plan is dedicated to potential climate change impacts to air quality. Plan implementation has been affected by COVID in 2020, but has proceeded without much interruption. Working remotely for periods of time and meeting virtually with Tribal, federal and state partners vs in-person has been the biggest change.



Taconite facility located within the 1854 Ceded Territory.



US EPA Region 5 Tribes



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

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