

Tribal Air Resources Journal

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

2022 Edition Volume XIV

In this issue:

*Tribes engage in
Climate Change
Planning and
Mitigation*

*COVID highlights IAQ
needs for many Tribes*

*Class 1 Redesignations:
increased interest and
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*Tribes engage and
apply for Air TAS
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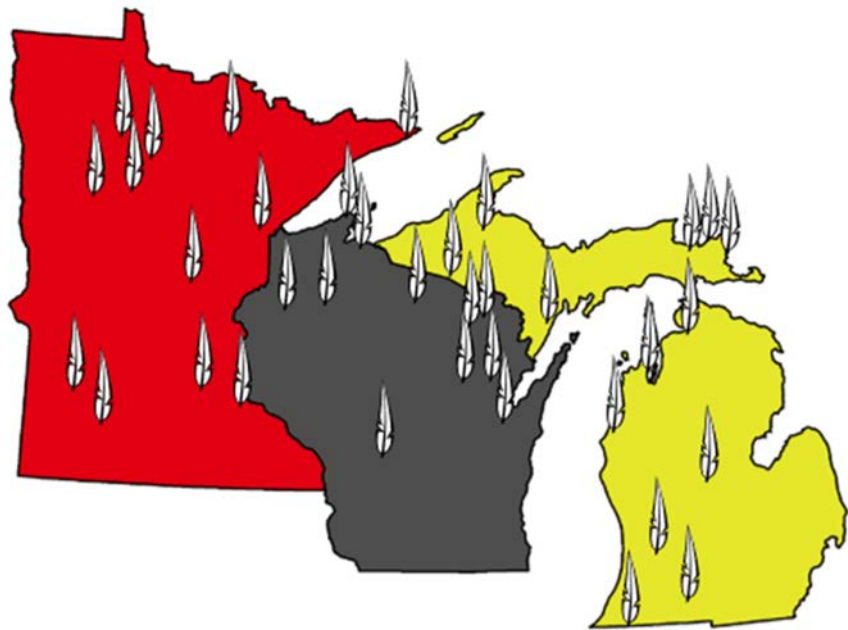
*ARP Funding upgrades
Tribal air monitoring*

*Tribes operate TSCAN
sites, add to climate
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*Retaining and
attracting Tribal staff:
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*R5 Tribes engaged in
local, regional and
national venues to
promote R5 and Indian
Country issues*



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. Due to this, Tribal professionals are multi-disciplinary and often understand their air quality issues better than staff working for other governments. This situation affords Tribes unique opportunities to manage their air resources as they deem necessary. However, this also presents distinctive problems for staff to overcome. Each Tribe is a sovereign nation that applies for, receives and is responsible for administering its own funding and is not linked to the others in terms of governance. It is our hope, in our fourteenth 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's fourteenth 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:

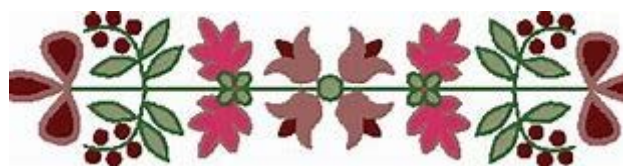
*Tribes have viable Air and Environmental Programs and expertise,
Tribes are leading cutting edge projects and studies,
Tribes are sovereign nations, and that
Tribes are great partners.*

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 contacts, reference pages and a Ceded Territory map. Each Tribal submission is capped at one page, thus creating a short synopsis of the work they do and may have focused on in 2022. 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.

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



2022 Summary of Facts for EPA R5 Tribes

Clean Air Act Implementation

- 8 Tribes in R5 currently have Treatment as a State (TAS) status. Of the 8, all TAS Tribes have CAA 105 with reduced grant match and CAA 505(a)(2) for Title V notification. Two of these Tribes also have CAA 126 authority. Two new TAS applications were submitted in 2022; one is a new application and the other is a supplemental application to add new Tribal trust lands and additional CAA provisions to their initial TAS eligibility determination from 2010. The region is coordinating with these two Tribes to obtain additional supporting documentation to move forward with a completeness determination and make the applications available for state and public comment in FY23. Region 5 expects to receive at least one additional TAS application in FY23, while other Tribes have TAS in their ETEPs and long-range strategic plans
- 1 Tribe has PSD Class I redesignation. 2 Tribes are in their own response to comments stage of Class I redesignation process and plan to submit formal requests to EPA at some point. Two additional Tribes are planning to scope out Class I redesignation. Multiple other Region 5 Tribes are evaluating Class I in their long-range plans.
- 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** – 10 Tribes requested \$1,542,000 for air quality project/program support from EPA. 16 R5 Tribes were *partially* funded with FY22 State and Tribal Assistance Grant (STAG) funds totaling \$1,308,000. 8 Tribes received CAA 103 project grant funding and 8 Tribes received CAA 105 program grant funding. 7 of the 8 105 grantees have incorporated their Air Grants into a PPG grant for FY22. One Tribe is implementing 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** – 5 Tribes (including one new Tribe) were awarded SIRG Radon grants in FY22 totaling \$165,713 with two-year budget periods. All SIRG grants were incorporated into PPGs to reduce and/or waive the match (25%-40%) requirement altogether under the new cost share waiver guidance that went into effect on October 1, 2021. Multiple other Tribes are utilizing their GAP, Tribal or other funding source to implement radon outreach, testing and mitigation projects.
- **American Rescue Plan (ARP)** – 6 Tribes were awarded 103 project grants under the ARP direct funding initiative totaling \$193,766 in FY22 to upgrade existing monitoring sites with new equipment. R5 is currently working with these Tribes to obtain supplemental funding to offset price increases from the equipment vendors.
- **Indoor Air Quality** – Multiple Tribes across EPA R5 do IAQ work via: CAA 103/105 STAG, TSCA, SIRG, GAP, and OECA EJ funding sources to implement a wide range of IAQ projects.
- *At the time of publication, our Region 5 Tribes are planning for the influx of additional funds through the American Rescue Plan, Bipartisan Infrastructure Law, and Inflation Reduction Act to advance Tribal air and build capacity in Indian Country.*

Federal Websites

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>

Center of Disease Control, Covid-19 Information

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

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.ntaatribalair.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/>

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, Chair
- National Tribal Air Association (NTAA) – 2 R5 Tribal Reps, Vice Chair
- 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 Woodstove Workgroup

Regional and National Meetings:

- EPA R5 Tribal Air Meeting – part of 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*
- *Climate Change projects by geographic locations of Minnesota, Wisconsin, Michigan*

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Robin Bouschor rbouschor1@saulttribe.net 906.632.5575

Tribe Finder

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Acronyms

CAA	Clean Air Act
CAA 103	Clean Air Act Section 103 Funding
CAA 105	Clean Air Act Section 105 Funding
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
EI	Emissions Inventory
EJ	Environmental Justice
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
NTN	National Trends Network
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

Dan Wiggings, Air Quality Technician

Program in Existence since – 2001

Program Projects – PM_{2.5}, O₃, Hg, Met, Rn, 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 Program works to fulfill those goals.

In 2021 the Band commissioned three microgrids that provide 500 kW of solar photovoltaic production with over 1,000 kWh of battery storage at three Tribal facilities. In 2022 the Band has been working to install 250 kW of photovoltaic production on residential homes to offset grid consumption. Commissioning of the residential solar installations is scheduled to occur by the end of 2022.

After the closure of a National Atmospheric Deposition Program (NADP) monitoring site in the area in October, the Bad River Band took over operation of Mercury Deposition Network and National Trends Network samplers in November 2022. The Band also has been sampling litterfall for 11 years under NADP's Litterfall Monitoring Network and has been sampling under NADP's Ammonia Monitoring Network since 2018.

In addition to the NADP networks, Bad River continues to sample continuous PM_{2.5} and ground-level ozone, as well as maintaining a meteorological station at the air monitoring site as part of the Wisconsin DNR monitoring network. Another meteorological station off-Reservation, but in the middle of the 1,000 square mile Bad River watershed, is maintained by the Bad River Air Program to help provide information on local wind patterns and provide an important point in monitoring rainfall to forecast for river flooding.

The Band's Air Program will continue to work with the Band's Renewable Energy Team to accomplish energy goals, specifically those that encourage cleaner energy; continue monitoring key pollutants to form both baseline measurements and observe short-term or seasonal trends; and work with federal, state, and local partners to continue to protect the natural integrity of the environment for this generation and the Seventh Generation yet to come.



Bad River's new National Atmospheric Deposition Program MDN and NTN sampling site.





Bay Mills Indian Community

Jessica Wesolek, Air Quality and Environmental Response Specialist

Program in Existence since – 1991

Program Projects – IAQ, Radon, Education and Outreach

Location – Brimley, Michigan

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. The members of the community have for generations relied heavily on their natural resources as a source of food and commerce. With this, there is a strong commitment to protect and enhance those resources.

Currently, BMIC has recently hired an Air Quality and Environmental Response Specialist to focus on developing and expanding the Air Quality program. The goal of the Air Quality program is to ensure healthy ambient air for the Reservation and surrounding air-shed as well as healthy indoor air. Future goals are to secure TAS, apply for CAA 103 funding, enhance education and outreach and expand indoor air quality testing to all Tribal service buildings and enterprise locations.

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. Past work has included radon testing homes within the BMIC Housing Authority to identify structures that require mitigation and ensure families with mitigation systems already in place continue to function. In 2021 93 radon kits were distributed to the BMIC members and staff during radon awareness week and at general Tribal council meetings. Educational materials were made available to the community through brochures, coloring books and webinars focusing on radon and indoor air quality. An article was also written for the Bay Mills News.

Visit the Bay Mills Indian Community website at www.baymills.org





Bois Forte Band of Chippewa

Frank Villebrun - Environmental Manager

Program in Existence since – 2002

Program Projects – IAQ, Asthma Awareness, Climate Change

Location – Nett Lake and Vermillion (Tower), MN

Due to COVID and staffing issues Bois Forte Band of Chippewa was not able to be reached for a submission this year. Below is their 2021 submission.

Bois Forte Band of Ojibwe (Band) has issued and implemented a very serious, and largely comprehensive approach to assure community safety and security during the COVID pandemic. In March 2020, Bois Forte established a Tribal Emergency Response Committee (TERC), comprised of elected Tribal 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.

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.

Due to lack of trained personnel and limited EPA funding, Bois Forte Division of Natural Resources does not have an active Air Program and is not presently performing air quality evaluations. This is a change from our previous status as an Indoor Air Quality Center of Excellence. However, with decreased funds and staff turnover, Bois Forte's capacity was diminished not only for Band but for the Tribes we assisted with IAQ assistance, training and equipment sharing.



Fond du Lac Band of Lake Superior Chippewa

Paige Huhta- Air Program Coordinator

Anthony Mazzini- Air Quality Tech & Environmental Outreach Coord.

Program in Existence Since - 2004

Program Projects -TV permit review, Diesel, PM 2.5, Hg, Sensors

Location - near Cloquet, MN

The Fond du Lac Band of Lake Superior Chippewa (FDL) was the first Tribe in EPA Region 5 to have a dedicated Air Program and in 2004 became the first to be granted Tribal Authority to administer parts of the Clean Air Act (CAA). The Band uses this status to receive advance notice of permit issuance from the Minnesota Pollution Control Agency (MPCA). The Air Program provides the Band with expertise on environmental issues related to air quality. In order to protect Fond du Lac resources, the Air Program monitors local air pollution, 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 Air Program, assert its sovereignty, and work with State and Federal regulatory agencies to help reduce air pollution on the FDL Reservation and its Ceded Territories.

The FDL Air Program assesses the effects of air pollution on the Reservation through monitoring ozone, $PM_{2.5}$, as well as wet/dry mercury deposition. We are in the process of replacing our mercury wet deposition and $PM_{2.5}$ monitors to keep our equipment up to date and stay in compliance with the EPA and MPCA's monitoring networks. Data on leaf litter mercury dry deposition has been collected for nine field seasons to date, however, due to staff turnover, our mercury dry deposition was not collected in fall '22. The goal for collecting this mercury data is to work with the scientific community in studying the impact of mercury emissions in the environment and determine the effectiveness of mercury controls implemented in our region. Mercury pollution is of concern in our area due to the human health implications of *giigoonyag* (fish) consumption due to methylmercury bioaccumulation within *giigoonh-wiiyaas* (fish tissues), as well as with the ecological concerns regarding mortality and adverse health conditions of piscivorous birds and mammals.

FDL continues to address indoor air quality issues as they arise, monitor local air pollution, and review/comment on proposed permits and regulatory actions. The Fond du Lac Air Program has a new Air Program Coordinator as of October 2022, and a new Air Quality Technician/Environmental Outreach Coordinator as of December 2021. FDL Resource Management also brought on a Minnesota GreenCorps member to assist with monitoring, outreach, and other sustainability projects relating to energy conservation and waste management. Through this transition period, we are learning how to best fulfill our roles and working to bring the FDL Air Program back to full vigor.



Left top: West Twin Lake on FDL
Left center: Ojibwemowin "Let us breathe clean air!"

Left bottom: Manoomin (Wild Rice)
Middle : Example "No Idling" sign with Ojibwemowin language



Forest County Potawatomi Community

Natalene Cummings – Air Quality Program Manager

Joe Cebe – Air Quality Specialist

Program in Existence since – 2002

Program Projects – Air Monitoring, TAS & Class I Area Management

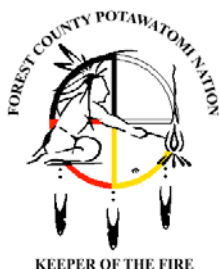
Location – Crandon, WI

The Forest County Potawatomi Community (FCPC) completed the *draft* of a Climate Change Adaptation Plan (CCAP) a few years ago. The plan provides a summary of the natural resources on FCPC lands, including air and water quality, forest inventory, and discussions about the current status of wildlife and vegetation populations

While drafting the CCAP, it became obvious that the plan couldn't be limited to just natural resources, as predicted events associated with climate change in northeastern Wisconsin, including flooding of streams and wetlands and the increase in insects that spread disease - to name a few, have consequences on human health, community utilities, housing and roads. Suddenly, the effort necessary to develop an adaptation plan grew excessively, and beyond the expertise of the natural resources staff, requiring a greater coordinated effort to complete an effective plan.

FCPC's draft Climate Change Plan includes a table listing the Expectations, Direct Impacts and the Effects of predicted changes in the climate of northeastern Wisconsin, taken from the 2022 *Wisconsin Initiative on Climate Change Impacts* report and other scientific research and reports. And, while the past 2 years with the COVID epidemic has provided an exercise in how this small Tribal community can gear up to develop and provide programs capable of addressing the anticipated increase in vector borne diseases and perhaps for water system related illnesses caused by drinking water contaminated by excess precipitation and flooding, there is so much more that needs to be established throughout the Community to provide for resilience and sustainability in the face of a changing climate. The next steps include meeting with program staff throughout the Tribal government to examine the expected impacts and develop actions specific to the individual programs needed to be prepared and endure, physically, functionally and culturally.

Continued monitoring at the FCPC air monitoring site for air pollutants, in addition to weather parameters such as temperature and precipitation will provide valuable data on the climate changes happening right here on FCPC lands, specifically for the pollutants O₃ and PM_{2.5} as the stagnant air masses predicted are expected to cause increases in these pollutants that will have serious impacts on human health.



Tribal Elder, Billy Daniels Jr., shares TEK of water quality on the Reservation with reporter.





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, Environmental Education, Climate Change, Permit Review

Location – Grand Portage, MN

The Grand Portage Band of Chippewa Reservation is located in the most northeast point of Minnesota. We have had an established Air Program since 2003. Our focus has been on ambient air monitoring, indoor air quality, environmental education, and regional haze. In 2017 we attained TAS status for our program. From 2020 into 2021, Grand Portage took part in sampling for PFAS and we received the results in January 2022 and will be comparing the data to that being collected by the Grand Portage Biology Department.

Grand Portage received funding from the American Rescue Plan (ARP) and is in the process of upgrading our particulate monitor; the new monitor will be integrated into the existing monitor network within Minnesota. Due to an unforeseen price increase of the monitor, the purchase and installation have been pushed back as funding is being worked out. Grand Portage started monitoring Mercury via wet deposition in February of 2022 with only a few hiccups, such as falling into the snow while switching out samples.

There is still some weariness of having people come into homes for an indoor air assessment due to COVID, but this weariness is fading. This last year, Grand Portage and Cook County, MN had record totals for snowfall; combine this with a fast snowmelt and record rainfall totals, and you get basements with moisture issues. Several community members had issues with basements flooding and mold from the amount of rain and snowmelt. This summer, contrasted with the summer of 2021, was completely different. Last year Grand Portage had several days with which the Air Quality Index (AQI) measured the air from unhealthy for sensitive groups (101-150, orange) to unhealthy (151-200, red). Whereas in the summer of 2022, we had only a couple of days where it may have been considered unhealthy.

Transitioning back to in-person meetings has been a shift, and interesting to compare the differences in how issues are approached in-person versus online. Having a meeting with a virtual option is still nice but being in person fills the missing gap from online sessions. The difference in how people talk to one another in person versus online was present during the first in-person meeting of the Tribal Air Monitor Center and National Tribal Air Association. The Tribal issues brought up during the in-person meetings seemed more varied and less chaotic. Grand Portage continues to be very involved in the Tribal Air Monitoring Center (TAMS) steering committee. Our Air Quality Specialist was voted in as Chairman of the TAMS steering committee for a second term and has become the alternate representative in Region 5 for the National Tribal Air Association (NTAA).



Dancing northern lights over Teal Lake on the Grand Portage Reservation.





Grand Traverse Band of Ottawa & Chippewa Indians

Courtney Hessell – Environmental Services Coordinator

Program in Existence from 2002 to 2010

Former Program Projects – Ozone, IAQ , Hg Deposition, EI, Diesel Retrofit, NADP Monitoring, Rn, 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 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 strives 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."

GTB established an Air Quality Program under the Clean Air Act (CAA) Section 103 grant funding in 2002. The Air Quality Program began with National Atmospheric Deposition Program (NADP) Monitoring. During its eight years of existence, the Program 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 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 Section 105 funding. GTB had to discontinue its Air Quality Program in 2011 due to the loss of funding under the CAA Section 103. Although, GTB re-affirmed air quality as a Tribal priority in the 2019-2023 EPA - Tribal Environmental Plan. GTB is experiencing staff turnover and consistency to build back capacity to re-establish their Air Program.

For further information, please visit our websites:

<http://www.gtbindians.org/default.asp>

<http://www.gtbindians.org/naturalresources.asp>

<http://www.gtbindians.org/environmental.asp>



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



Hannahville Indian Community

Mike Shuster –Environmental Services Coordinator

Program in Existence since-1993

Program Projects – IAQ Education, Tire Disposal, Rn Testing

Location – Wilson, Michigan

Hannahville Indian Community (HIC) is a federally recognized Indian Tribe located in the south-central portion of Michigan's Upper Peninsula. The Reservation of HIC is composed of 5,800 acres. The Community has 990 enrolled members, 760 of which live within the borders of the Reservation. HIC established Hannahville Environmental Protections Program (HEPP) in 1993, with a main focus on surface water quality, solid waste disposal, recycling, environmental impact assessments, and assisting the community with best land management practices.

Although HIC does not currently have an air grant through the EPA, the HEPP have committed to air-related activities among the Reservation through GAP funding. The primary focus within the air portion of the GAP Program is radon testing in governmental buildings and Tribal residences. The Reservation, which is mostly located in Menominee County, is an area of moderate potential for radon levels above the EPA action level of 4.0 pCi/L. Due to this potential, HEPP continues to inform the Tribal Community about the negative effects of radon and keeps AirChek radon test kits in stock for HIC members.

Continued support of the Tribe in providing solid waste disposal for their residences in the form of curbside pickup and a solid waste transfer station, has deterred backyard burning of garbage. The burning of garbage is a popular way of disposing of solid waste, especially in the rural areas of the Upper Peninsula. With this, the Tribe has supported proper disposal of tires by allowing Tribal members to drop off their personal used tires to avoid improper disposal and to prevent any burning of tires. In 2021, many improperly disposed tires were discovered within the Reservation and through a grant partnership with the Lake Superior Watershed group and Michigan's EGLE the tires were cleaned up and disposed of properly. In the end, over 1,300 tires were recovered.

Hannahville Indian Community



Visit our website at www.hannahville.net



Ho-Chunk Nation

Matt Malimanek, Air Quality Specialist

Program in Existence since – 2006

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

Location – Black River Falls, WI

The Ho-Chunk Nation Ambient Air Monitoring Program continues to progress towards establishing a baseline of PM data near its communities. Significant improvements to the Nation's Air Monitoring QA/QC and AQS data reporting process were made in 2022. The Ho-Chunk Nation Division of Environmental Health welcomed EPA Region 5 staff to its ambient air monitoring sites and offices, in early October 2022, for a Technical Assistance Visit.

The Ho-Chunk Nation's Air Quality Program has begun to observe an increase in Tribal Member requests for mold investigations, radon testing, and indoor air quality assessments. The Nation has returned to utilizing on-site visits to conduct home assessments for the requests that have been received. The Nation is looking into utilizing a digital platform to access, input, and store data collected during the IAQ home assessment process.

The Ho-Chunk Nation has completed the drafting of its Clean Air Act Treatment as State (TAS) application. The Nation has been discussing the finalizing of the application package with EPA Region 5 staff. Upon the submission and approval of the Nation's Air TAS application, the Air Quality Program will begin to apply for Clean Air Act Section 105 program funding.





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

Bill Bernier, Environmental Services Director

Program in Existence since – 2000

Program Projects – IAQ, Radon

Location – Sault Ste. Marie, MI

Inter-Tribal Inter-Tribal Council of Michigan, Inc. (ITCMI) has provided air quality support for member Tribes since 2000. Past support included indoor air quality assessments, ambient air monitoring, and residential radon testing of individual residences and multi-family housing.

Current support includes indoor air quality assessments that are provided to Michigan Tribes through contracted sanitarian and environmental health services at ITCMI. Support has ranged from investigating air quality and weatherization effectiveness in family homes to the investigating 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.





Keweenaw Bay Indian Community

Teal Sackett – Air Quality Program

Program in Existence since – 2012

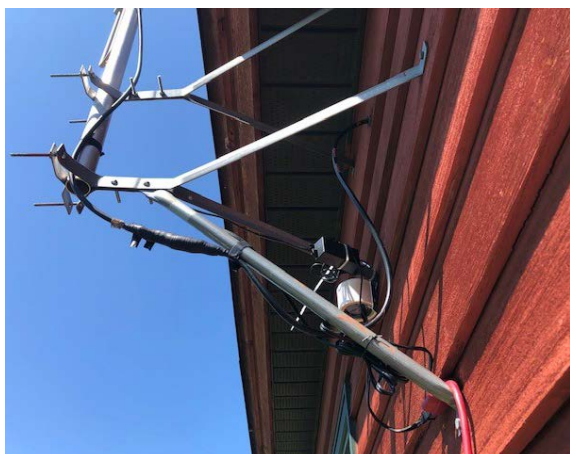
Program Projects – Indoor and Ambient Air Quality, Rn, Education, Outreach, Air Sensor Monitoring, and Local/National CAA Issues

Location – L'Anse/Baraga, Michigan

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 Ceded Territory of 1842. 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. 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.

During FY2022, the KBIC Air Quality Program (AQP) was administered under the KBIC PPG with EPA CAA Section 105 and SIRG Radon funding. KBIC has made steady progress building its AQP capacity to provide air quality services through TAS implementation, radon testing, home assessments, open burning enforcement, new and renewal air permit reviews and CAA commenting, Tribal energy program assistance, educational outreach, as well as hiring a new Air Quality Technician. Current projects include the deployment of multiple air sensors for obtaining baseline PM_{2.5} data and an EJ exposure assessment study of atmospheric contaminants from legacy and active point sources on and adjacent to the KBIC Reservation.

Year to year, the KBIC AQP continues to expand with the additions of climate change, energy, wildfire smoke, and PFAS issues. While trying to maintain the work we already perform, we find that the appropriate funding to not only sustain but to advance our CAA program goals is difficult to obtain. The burden of writing multiple grants, mostly competitive, to fill key program positions requires valuable administrative time. It is our view that when a Tribe can establish a meaningful and active AQP with the EPA, that appropriate funding for staff should systematically be guaranteed and supplied to sustain those programs. CAA 103 project funds should not be the means to augment key staffing positions within established air programs. R5 Tribal budget proposals are often and notoriously slashed from original proposal budget requests. We look forward to 2023 and how these disparities can be addressed within our Tribal Air Programs in R5.



Purple Air monitor connected to health department to collect PM 2.5 data



Purple Air monitor (circled in red) proximity to L'Anse Warden Plant (right of circle)





Lac Courte Oreilles Band of Lake Superior Ojibwe

Brett McConnell – Environmental Specialist

Program in Existence – 2000-2005

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

Location – Northwest, Wisconsin

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 Resiliency, IAQ, Energy Upgrades, Solid Waste Recycling, Education and Outreach

Location -Lac du Flambeau, Wisconsin

Climate Change Adaptation and Resiliency & Pre-Hazard Mitigation, Energy Planning Initiatives. Lac du Flambeau (LDF) continues to address Covid impacts as well as other issues of PFAs PFOs and air particulates are of alarming concern. We continue to initiate our Climate Resiliency Pre-Hazard Mitigation Plan. Outstanding needs for air quality funding and communication outreach remain.

The Tribal Natural Resource Department continues to use Traditional Ecological Knowledge (TEK) in all natural resource planning. An example of this planning effort is the Tribe's Climate Resilience Initiative that includes Energy Reduction Plan, Climate Assessment and Adaptation Plans, as well as Hazard Mitigation Planning. TEK is incorporated into these plans which are publicly available at www.ldfclimateresilience.org.

The COVID pandemic heightened indoor air quality concerns impacting households and Tribal facilities such as tobacco, synthetic drug, meth, wood smoke, mold and poor ventilation issues. The practice of utilizing lead and varnishes for fish decoys is a concern. There is a need to provide funding for outreach, education, and alternatives to address these issues and for mitigation of impacted homes.

Air Quality Protections are needed for direct air pollution, depositional pollution into the environment, air quality degradation, and cumulative pollution effects including PFA's and PFO's. These threats are impacting ceded territory treaty reserved resources both within the Reservation and within the Ceded Territory. With the abundant rainfalls mold and moisture issues is a concern with outside and inside home environments.

The resources available for air program projects and implementation are limited. The Tribe lacks a current air quality cooperative agreement grant. The available funding resources do not cover a full time staff position, proving a challenge to air program development. In addition, existing Natural Resource Staff and programs were stretched to provide increased services during the COVID pandemic resulting in less staff time available for air program development.



December 2023- Waaswaagoning- Lac du Flambeau sky



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. The Reservation is composed of 620.5 acres of fee land and 858.5 acre held in trust by the United States Government for the community. The 9- member council is an elected body, who is selected through the election process to govern the Tribe.

The Tribe has shifted efforts from the Indoor Air Program to focus on the restoration of Wild Rice. The Tribe is involved with multiple agencies to help in the restoration. Some of our partners include U.S. Army Corp of Engineers, U.S. Forest Service, NRCS and various Lake Associations.





Leech Lake Band of Ojibwe (Gaa-zagaskwaajimekaag)

Carma Huseby – Air Quality Specialist Brandy Toft –Environmental Director
Program in Existence since – 2001

Program Projects – Hg (wet deposition), IAQ, Met, PM_{2.5}, Rn, Diesel,
Toxics, Solar, Permits/Rules, Mining, Sustainability, Forecasting, MTERA
Location – north central Minnesota, 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 on the Reservation's 865,000 acres.

Leech Lake's goals for sustainability continues with 5 current and 14 additional EV chargers, 260 current and 534 proposed Kws of solar PV, of which 200 Kw serves low income households, and a 22 building energy savings project that will provide \$276,000 in energy savings and reduce 2,030 metric tons of GHG emissions per year. A solar strategy plan, a Climate Adaptation Framework and a Sustainability Strategic plan were completed with a Climate Change Adaptation Plan in process. These efforts and sustainability actions we established include guidances: Approaching Net Zero, Building Solar Ready and Electric Vehicle Infrastructure and Procurement.

The LLAP operates ambient air monitoring sites for Hg (wet deposition), BAM 1020 PM_{2.5} and meteorology. With technical assistance from the TAMS center, the LLAP updated our meteorological equipment to the newest models, replacing the original equipment purchased in 2003 and now can view the data in real-time. LLAP's BAM is integrated into the State of Minnesota's PQAO and Air Forecasting Networks <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 and EPA has been beneficial for both entities. MPCA has provided technical assistance, remote data collection and QA/QC. The LLAP is currently working with EPA and MPCA to upgrade our BAM₁₀₂₀ PM_{2.5} to the new state network Teledyne PM_{2.5}. The LLAP also has a BloomSky camera collocated with the BAM which is a weather camera station measuring temperature, humidity, barometric pressure and precipitation. Allowing Tribal members to see live conditions and take precautions when PM levels are high. <https://map.bloomsky.com/weather-stations/faBiuZWsnpamKqr>. The LLAP joined the Purple Air Wildfire Smoke Management network with Minnesota and USFS currently with three sensors. The LLAP will be deploying an additional three sensors across the Reservation including one to pair with our new Teledyne monitor. LLAP's monitors provide data and fulfills a data gaps.

LLAP 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 station, and 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 7 functioning pipelines (5 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 2007.

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

The LLAP is funded by an Air Media PPG combining our 105 STAG and Radon SIRG grants established in 2018 to reduce match and increase program flexibility. 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.



Purple Air map displaying real time sensor data from the Onigum Community Center. One of three sensors deployed to date.



Little River Band of Ottawa Indians

Corey A Wells – Air Quality Specialist

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 with CAA 103 project funding. The Tribe was concerned that O₃ transports up the Lake Michigan shoreline was adversely affecting air quality in Manistee County, Michigan. This transportation issue has been acknowledged and documented by the State of Michigan and the EPA. LRBOI continues to monitor ozone to gather additional information and to support trend analysis.

In addition to monitoring ozone, LRBOI also monitors PM_{2.5} and meteorological data through the instrumentation at our air monitor station. LRBOI has an agreement with the State of Michigan for monitoring assistance, laboratory work and quality control. LRBOI is still in the process of pursuing Treatment as State (TAS) for CAA 105.

LRBOI has a renewed interest in analyzing the data (O₃, PM_{2.5} and MET) collected at our research station over the past decade to identify any developing trends. In addition, we are working on producing an updated emissions inventory. LRBOI still plans on expanding the Air Program to include an Indoor Air Quality (IAQ) Monitoring Program with an emphasis on mold and moisture detection and radon testing. We will be setting up IAQ monitors at government buildings and Tribal community centers so that a constant record of the IAQ of LRBOI's various buildings can be monitored and recorded. This system will also be available for citizens and employees to view once it can be integrated into LRBOI's IT system.

LRBOI is working with the EPA to set up a colocation shelter along side our PM_{2.5} to house a variety of sensors that can be compared to our O₃ and PM_{2.5} data to test for accuracy. These (relatively) inexpensive and smaller systems will then be set up at remote sites to monitor air quality and metrological data along the Reservation area in the Manistee River corridor. This summer we removed our old PM_{2.5} platform and built a new and larger platform to allow for the expansion of our Air Monitoring Program. LRBOI will continue to grow, expand, and update our Air Monitoring Program in the future.

LRBOI's Website www.lrboi-nsn.gov



New PM_{2.5} Platform



Little Traverse Bay Bands of Odawa Indians

Lauren Davenport – 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 in 2007 to a full-time Environmental Specialist. The current Air Quality Program is run by one Environmental Specialist and funded by a CAA 103 grant. 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. Two solar arrays totaling 50kW were installed in 2016 and 2018 to decrease energy production emissions. The Program is currently working with other LTBB Departments to implement measures to meet new energy standards under the Tribe's new Climate Emergency Resolution requiring LTBB to be carbon neutral by 2030. In 2021, LTBB will be looking into the increasing variety of grants and opportunities for collaboration with other agencies, organizations, and Tribes that are currently available for constructing solar arrays and other projects that reduce carbon emissions.

LTBB has recently hired a new environmental specialist to take on the air quality role. We are currently working to get them up to speed on all aspects of this position, We will continue to asses homes for IAQ, provide education and outreach to tribal citizens and work on our Climate Emergency Resolution.

LTBB also 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.





Lower Sioux Indian Community

Cansáyapi Oyate

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 Tribe operates business enterprises such as a casino/hotel and other establishments. Approximately 1,080 Tribal members live on the Reservation in 160 single family dwellings and 16 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 government departments. In 2022 OE staff worked to coordinate with EPA’s Air Monitoring and Analysis section staff on air monitoring using the geospatial monitoring of Air Pollutants (GMAP) mobile monitoring platform. The GMAP was used to monitor for Hydrogen Sulfide, Methane, Benzene, Toluene and P-xylene in and near Lower Sioux.

The Lower Sioux Council, OE and Legal worked to put into place burning restrictions to decrease the risk of uncontrollable fires due to the drought conditions during the Summer in 2022. Air quality and other environmental concerns increased over the past year due to the impacts from the operation of a mid-size Confined animal Feedlot operation (swine) located near (<0.5 mi) the Community. Anticipate future work to address the impact on air quality for Community residences and medical/cultural plants. A CAA Sec 103 proposal was submitted for FY2023 funding that would provide the means for Lower Sioux to obtain air quality monitoring equipment. The objectives of the project include initiate monitoring of air pollutants in and near the Lower Sioux Community. The results from the monitoring would provide the air quality baseline dataset for the Community.



Air Projects/Programs for FY 2022-2023

- Open Burning, Barrel Burning, Fire Prevention, Permitting
- Mold/Moisture technical assistance to Housing working with residences affected by flooding.
- Air quality monitoring.
- 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 Pottawatomi Indians

Shawn McKenney, Environmental Specialist

Program in Existence - 2003

Program Projects - Conservation Incentive Program, EI, IAQ, Alternative Energy Projects, Radon, Climate Change Adaptation Planning

Location – Shelbyville, MI

The Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians (Gun Lake Tribe) is a federally recognized Indian Tribe located in southwest Michigan. Gun Lake Tribe has 597 members currently enrolled. The Reservation is composed of 736 acres held in trust by the United States Government for the Tribal community and possesses no exterior boundary. Gun Lake Tribe continues to provide indoor air quality retrofits through the Conservation Incentive Program, these retrofits are funded through the Tribe's general budget and this program is managed through the EPA Performance Partnership Grant.

Indoor Air Quality Incentives through the Gun Lake Tribe Conservation Incentive Program include:

- Carbon monoxide detectors
- Energy Star qualified bathroom fans
- Air quality home audits
- HEPA and MERV 10+ rated furnace filters
- Mold testing
- Radon mitigation for homes with 4 pCi/L or higher levels
- Radon detectors
- De-humidifiers

Gun Lake Tribe continues to manage a TSCAN weather station at the Jijak property in partnership with the United States Department of Agriculture Natural Resources Conservation Service. Gun Lake Tribe hopes to investigate and document climate change trends with the weather station. The weather station is also used as tool for climate change and air quality classes at the annual Jijak Summer Youth Camp.

Gun Lake Tribe installed a Harps Renewable's food waste digester in September 2022 at Gun Lake Casino. The digester has processed over 12,000 lbs. of food waste. The amendment from the digester has been used at Gun Lake Tribe's gardens and at Tribal properties.

Compost processing diverting over 12,000 pounds of food waste to date.





Menominee Indian Tribe of Wisconsin

Jeremy Pyatskowitz - Environmental Services Director

Program in Existence – 2000-2010

Program Projects – Past: Acid Rain, Hg, Rn

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 gap within the state for collection. One of the reasons the air funding was cut was the lack of data showing 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 radon 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 a MITW Tribal Air Program.



Winter wonderland on the Menominee Reservation river.





Misi-zaaga'igani Anishinaabeg (Mille Lacs Band of Ojibwe)

Charles Jirô Lippert – Air Quality Specialist

Program in Existence since – 1996

Program Projects –O₃, PM_{2.5}, MTERA, PurpleAir

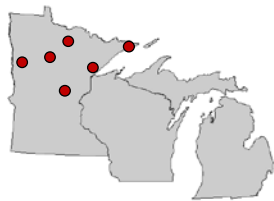
Location – east-central Minnesota

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 in need to provide a determination for CO and asked for a 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, reviews and provides feedback to air and construction permits and EIS 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 Agency in monitoring for O₃ and PM_{2.5}. 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-19, the Band's Air Quality Program at first operated in a minimal bases, but was ramped back up in order to meet the programmatic obligations to its Tribal citizens. Still with many other staff laid off due to COVID-19, the Air Quality Program assists all programs housed in the Tribe's Department of Natural Resources in a wide array of Federal and State consultations. Through citizen-led PurpleAir low-cost air particle sensor network, the Air Quality Program conducts air quality education outreach in regional air particulate trends. With the Air Quality Program being one of the Department of Natural Resources' highly technical programs, the Air Quality Program provides expertise in pipeline-system transports, regional mining impacts assessments, and regional transportation network assessments. The program has drafted the Tribe's strategic energy and strategic climate change adaptation plans.

Mille Lacs Band of Ojibwe
<http://www.millelacsband.com>





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 (MCT EP) provides capacity assistance as needed for core environmental programs of the Bands that utilize EPA grants. The MCT EP develops projects to assist in the protection of MCT land both on and off the 6 component Reservations. 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 MCT EP 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. While the MCT EP remains committed in its efforts to enhance, expand, and evolve capacity for TWM initiatives, a new focus will also include a comprehensive recommendation to the Tribes’ leadership based on current climate assessment analysis that spans across the entire 54,000 square miles of northern Minnesota in which the MCT exists. The MCT EP intends on highlighting the relationship that climate impacts and TWM will undergo in the near future in order to draw attention to the adaptation planning that has already been set in motion for the region.

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





Nottawaseppi Huron Band of the Potawatomi

Amy Boetcher – Environmental Specialist

Program in Existence since – 2001

Program Projects – Radon, Ambient Air

Location – Pine Creek Reservation, Michigan

The NHBP Air Program serves approximately 1,600 Tribal Members and is located on the Pine Creek Reservation in southwest Michigan. Pine Creek Reservation lies within a watershed containing agricultural land use in excess of 70%. Pesticides, herbicides, manure, dust, and oil and gas wells are some potential local sources of concern for our air quality. Particulate pollution is a primary concern because it impacts community health. We do not receive any air-specific funding. We run eligible components of our Program with EPA GAP funds and the remainder with Tribal general funds. Current staff working on air projects are part-time, and like many other Tribes, also serving in other environmental roles.

To date, NHBP-managed structures have had 197 radon tests, 28 mitigations and show average radon levels of 1.7 pCi/L. In 2015, the NHBP Tribal Council adopted a Housing Construction and Health code that requires Radon Resistant New Construction for new structures built on Tribal lands. The EPA finalized and approved our Radon QAPP in 2021, and we will be performing community-wide radon screenings in winter of 2023/2024.

The Tribal Air Monitoring Center and EPA helped guide us to potential contacts for contracting out our Emissions Inventory work, if we choose to outsource it. In 2023, we hope to reinvigorate our work on an emissions inventory to provide us with a formalized baseline for future ambient air efforts.

Studies from reputable air quality control agencies indicate high levels of correlation between PurpleAir(PA) particulate matter sensors and expensive, commercial-grade sensors used by EPA. Our Tribal newsletter advertisement (1 response), a social media post (15 responses), and an email blast (8 responses) helped us reach interested membership in 5 states. There are currently 14 NHBP AirKeepers, and 2 additional NHBP monitors at the Tribe's northern and southern government offices. There are monitors at Tribal Member homes in 7 counties in Michigan. Three of our AirKeepers have had wireless or electric connectivity issues. Ten members received monitors but are not participating in the project. We are proud to provide members with ownership of a significant environmental initiative, and direct real-time information about the condition of their air. We were able to summarize trends for each AirKeeper, and share a personalized mailing with them. We are hoping to get feedback in 2023.



John Dandridge, NHBP DPW Maintenance Technician, installs a PurpleAir monitor at the Tribe's northern health office in Grand Rapids, MI.



Oneida Tribe of Indians of Wisconsin

Brittany Nicholas- Environmental Specialist

Program in Existence since – 2021

Program Projects – Indoor Air Quality

Location – Oneida, Wisconsin

Oneida Nation was awarded an indoor air quality grant in October of 2021 through CAA Section 103. This project will end in September of 2023. This grant aims to build our indoor air quality program capacity by training staff to perform home assessments for common indoor air quality concerns (such as asthma) and working with our comprehensive housing department and department on Healthy Homes initiatives.

Here are some highlights from accomplishments from 2022 under this grant:

- Completion of Institute for Tribal Environmental Professionals Trainings such as Residential Building Science Review
- Establishment of an Indoor Air Quality Complaint Form
- Participate in Region 5 Air calls
- Community outreach on allergies, asthma, and radon
- Oversight of Clean Air Act (the Act) compliance evaluations by EPA at Prestige Custom Cabinetry & Millwork, Inc. on August 15, 2022, and Cintas Facility Services (formerly G & K Services, Inc.) on August 16, 2022.





Pokagon Band of Potawatomi Indians

Jennifer Kanine – Department of Natural Resources Director

Justin Palthe - Environmental Specialist

Program in Existence - 2000

Program Projects - Comprehensive Planning, Testing Air Sensors, EI

Location - Dowagiac, MI

The Pokagon Band of Potawatomi Indians (Pokagon Band) was federally reaffirmed 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 counties in north central Indiana. The Pokagon 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 off Tribal properties or on newly acquired properties influence actions taken on those properties. During 2022, asbestos abatement was conducted on several structures that were demolished or set for demolition, in order to properly dispose of and prevent dangerous exposure to asbestos. The Pokagon Band Kowabdanawa odë ké (PBKK) also continues reviewing prevention of significant deterioration permits within the Service Area to ensure that outdoor air quality is not being degraded further.

The Pokagon Band had staffing limitations in 2022, whereby the Environmental Specialist position remained vacant for six months. A new Environmental Specialist was hired in October of 2022 and begin reviewing previous work completed with air quality monitoring.

PBKK applied for an Enhanced Air Quality for Communities grant funded by the 2021 American Rescue Plan Act with EPA in March of 2022 to conduct ambient air monitoring of pollutants of greatest concern in communities with environmental and health outcome disparities. The Pokagon Band received notice in November of 2022 that the project proposal was going to be funded. Once award documents are received the Pokagon Band will purchase four air quality monitoring stations and install three of them at Tribal villages located in Hartford and Dowagiac, Michigan and South Bend, Indiana. The fourth monitor will be installed on Tribal properties in New Buffalo, Michigan. The air sensors will provide site-specific and up-to-date air quality information that can be analyzed for pollutants of greatest concern. Data that is gathered will be shared with the Tribal community and state and federal agencies in order to determine how to move forward towards healthier air quality.

The Natural Resources Conservation Service Tribal Soil Climate Analysis Network (TSCAN) weather station installation, awarded to the Pokagon Band in 2018, was finalized in April of 2022. The weather station is now reporting real-time data and can be accessed by anyone with a link to the station including tribal citizens, farmers, and state or federal agencies. The weather station's name is Pokégnek Bodéwadmik Dbë gnen (Pokagon Band of Potawatomi Measurements) and can be accessed via: <https://wcc.sc.egov.usda.gov/nwcc/site?sitenum=3071>





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, downstream of the Twin Cities. 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 Tribal administration in late 2017. The termination was largely due to misunderstanding in the amount and type of radiation work this grant was able to cover. Despite this, the Land & Environment Department continues radiological sampling work as much as allowable under the GAP workplan.

Xcel Energy's Prairie Island Nuclear Generating Plant is located adjacent to PIIC with spent fuel casks storage on-site, within 700 yards of community residences, which is a high priority concern for the community. Sampling for radiological particulates has been ongoing since 1993. A particulate air monitor was upgraded in 2015. The Tribe installed a new ambient gamma monitor in late 2019 via funding through the BIA.

In the age of a climate crisis, this is a contentious issue as nuclear gets press as a “clean energy” but holds many health and safety concerns for PIIC members. This nuclear power concern has inspired a new goal at PIIC: to become a net-zero carbon emissions Tribal nation. A recent legislative change gives PIIC access to funding for projects that will contribute towards this goal. PIIC aims to remove 20 million pounds of carbon annually through investment in renewable energy, electrification, and efficiency upgrades across the community. You can read further about this project here: [MPR News Article](#)



Treasure Island Resort & Casino, owned and operated by Prairie Island Indian Community in Welch, Minn. 📸 Tom Baker for MPR News



Red Cliff Band of Lake Superior Chippewa

Vacant - Air Quality Program Manager

Linda Nguyen - Environmental Director

Program in Existence since – 2010

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

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 the Reservation located so far north, the lack of heavy industry in the immediate area makes us 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 Reservation is due to 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 Health Center recognizes the increase of asthma and allergies within our community, especially among our children.

The Air Program (Program) is in its twelfth 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} movements within Tribal exterior boundaries using the Met One E-Sampler Light Scatter Continuous Aerosol Monitor.

The 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. 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. Unfortunately, the Air Quality Program Manager position has remained vacant since September of 2021. All interested candidates are encouraged to apply through the Tribe's website. Come be a part of the Red Cliff Environmental Department!



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}, PurpleAir, Ozone, Hg Leaf Litter, VW Settlement, IAQ, 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 55% of the Federal Indian Trust Land of the Region. The Tribe currently has just over 16,000 enrolled members, of whom around 7,000 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 2007 with GAP funding and in 2009 secured Clean Air Act (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 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 also collects data on mercury dry deposition as part of the Litterfall Mercury Project with the National Atmospheric Deposition Program (NADP). 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 five older diesel vehicles and is in the process of replacing one more diesel vehicle with Volkswagen settlement funds. These funds were also used to install four EV 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 Warroad, MN. There are plans to install additional PurpleAir sensors at other locations on the Reservation in the future. Red Lake will also begin monitoring for ozone in 2023.

Although ambient air quality has been the program's primary focus, IAQ remains a concern. Basic IAQ assessments of homes on the Reservation are available upon request.

Through a community survey, opinions on where to focus time and attention as far as which air quality issues are of most concern were collected - prioritizing concerns based on responses will help shape the Air Quality Program to better serve the Red Lake communities. Other community outreach continues.



Level 2 EV Charger.

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



Firewood sheds to keep wood dry.



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

Saginaw Chippewa Indian Tribe of Michigan has more than 3,000 enrolled members and is located in central Michigan. The mission of the Saginaw Chippewa Indian Tribe's Environmental Team is, "To support Tribal Council's relations with governmental and non-governmental organizations, to ensure Tribal representation in environmental issues, protect Tribal natural resources, and facilitate sustainable development." Our guiding principle is to follow our cultural teachings that tell us, "As human beings, our original responsibility is to care for our Mother Earth in the same way she cares for us." By working together to protect Mother Earth, we keep her beautiful and healthy. In turn, she keeps us all healthy, both for our generation and the next seven generations to come.

In September 2022 the Environmental Team and Tribal Council welcomed a delegation of Michigan Department of Environment, Great Lakes, and Energy representatives to an onsite visit of the Tawas Lake Restoration Project, which is the location of the largest wild rice bed in the state. The project started in December 6th, 2016. Part of the restoration project includes hand removing individual Eurasian Watermilfoil plants from the lake bed in Tawas to protect the wild rice—square-foot by square-foot by square-foot. This is a time-consuming task but a much safer option for the water and air quality of the lake since chemicals would be more harmful approach at controlling invasive species.



Picture of Tawas Lake Restoration Project.





Sault Ste. Marie Tribe of Chippewa Indians

Robin Bouschor – Environmental Specialist

Program in Existence since – 2016

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

Location - Sault Ste. Marie, Michigan

The Sault Tribe of Chippewa Indians (Sault Tribe) is spread out across the miikawaadad (beautiful) eastern Upper Peninsula of Michigan. The headquarters for the Tribe is in Bahweting (Sault Ste Marie, MI). The Sault Tribe Environmental Department has been undergoing steady growth in its capacity to take on environmental regulation, including air quality work. The Tribes Air Program started operating in 2016 via federal funding under the CAA 103 grant. The Sault tribe is currently working towards getting TAS under CAA 105, 505 a(2) authorities.

The Sault Tribes Air Quality Program (AQP) continues to operate a NADP site under the NTN in the late fall of 2021. NTN measures free acidity, conductance, calcium, magnesium, sodium, potassium, sulfate, nitrate, chloride, and ammonium. Through a collaboration with Lake Superior State University, we will be establishing a parallel long-term monitoring of both bulk deposition chemistry (including the above species with the addition of trace elements) and atmospheric PM adjacent to the NADP in 2023.

In-person IAQ assessments continue to be offered to Tribal members living in our service area but we also make sure to answer questions from concerned Tribal members that do not live within our service area. This year we have assisted members with mold issues and even were able to potentially save a young family from CO poisoning and helped them find resources to get a new heating system! This alone shows how important and valuable these assessments can be to the Tribal community.

The AQP had great success with engaging the community this year. The AQP set up educational booths at two different *jiitamoks* (powwows) that included an activity table for children to come and build with magnetic blocks that featured a magnetic car track. The kids created homes and roads for the vehicles, this led to the perfect opportunity for the ES to discuss mobile sources with the kids/parents and common IAQ issues within the home. In addition, the AQP held a writing/coloring contest for kids. Participants were given a writing/coloring prompt that was AQ related. We received so many wonderful and creative submissions and the ES donated each of the prizes for both contests (Teens love money and kids love lego sets!).



AQ Educational Booth



Great view from the booth of grand entry line up!



AQ Youth Engagement Activity Area



Shakopee Mdewakanton Sioux Community

Scott Walz – Natural Resources Director

Steve Albrecht-Operations Administrator

Program in Existence since – 2011

Program Projects – Sustainability, Renewables, Composting, Tribal NSR

Location – Prior Lake & Shakopee, MN

When the federal government granted the Shakopee Mdewakanton Sioux Community (SMSC) official recognition as a Native American Tribe, it was confined to 260 acres of rural land. As of 2021, the Community covers more than 5,000 acres. That growth has brought many improvements to the quality of life for the Tribe's Community Members and neighboring communities, but also new challenges. This includes air pollution from traffic, industry, and even wildfires.

The SMSC is a Community of Dakota people whose ancestors lived in the region near Shakopee for centuries. The Dakota people have a tradition of living in balance with Unci Maka, Grandmother Earth. Traditionally, this included practices like recapturing the carbon from their fires to form the next generation of living things. Today, the Tribe remains committed to caring for Unci Maka and being a good steward of the earth to benefit future generations. This includes actions to reduce greenhouse gas emissions.

The SMSC is interested in expanding electric vehicle (EV) infrastructure with an electric shuttle bus pilot project cost-share, which is with the state government. It is delayed as it navigates federal contracting requirements. The Tribe is also seeking ways to expand its EV charging network.

The SMSC's Organic Recycling Facility collects and recycles organic waste to create useful materials, such as high-quality compost and mulch. The Tribe also continues to research ways to compost up to 172,000 tons of organics per year.

In 2022, the SMSC completed several projects to reduce the Tribe's carbon footprint. These included conducting energy audits of 19 buildings, a Community-wide greenhouse gas emissions inventory, and a Community-wide ground cover and tree canopy carbon sequestration study. These studies will help the Tribe develop an ambitious sustainability plan that details next steps for the Tribe as it looks to reduce its carbon emissions.





Sokaogon Chippewa Community

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 in the town of Nashville, in Forest County, Wisconsin. Well known for our productive wild rice lake. Although small in acreage, the Sokaogon Reservation is home to pristine lakes, streams and forested wetlands.

The Sokaogon Environmental Department does not currently have an Air Program but we do operate and offer a variety of services to our Tribal membership. Some of our services does have an effect on air quality. We currently operate a solid waste and recycling center, this in turn does have an positive impact on air quality around our community. It reduces residents use of burn barrels, while also keeping our beautiful Reservation clean for generations to come. In addition, the Environmental Department does review proposed mining related activities in the Ceded Territories that could have a negative impact on the land, air and water.

In the future our Tribal Environmental Department hopes to expand to include an Air Program, right now we don't have the capacity to carry out such a program due to funding limitations. Until we do, the Tribe will continue to monitor, manage and protect their precious lands for future generations to the best of their abilities.





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 from the EPA to maintain an Air Program. With consistent funding provided by EPA, St. Croix has been able to provide air quality assessments, outreach and education to Tribal community Members for several consecutive years now. In fiscal year 2021, St Croix was awarded SIRG funds to test homes and Tribal buildings for radon. The SIRG funds were included in our PPG grant award.

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.

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.

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. We also strive to protect and enhance all of our natural resources for future generations to come, to help allow them in carrying on Tribal traditions.

Tribal Website: <https://stcroixojibwe-nsn.gov/resources/epa/>





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 Environmental Department has a mission to use the latest science to holistically observe, monitor and, when needed, manage the Reservation land, air, water, animals and plants which they support in order to ensure the diversity and purity of these resources for future generations to thrive in wellness.

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 encompasses the original Reservation areas and boundaries of the Townships of Bartelme and Red Springs, in Shawano County Wisconsin.

The Air Program currently focuses on testing individual residential homes specifically for radon and mold issues. COVID created some challenges with on-site testing, however we are now able to complete on-site testing by our staff. This is extremely important for consistency in reliable results. The number of households tested has significantly increased since the inception of the Program and mitigation measures are taking place with collaborative efforts coming from our internal departments as well as outside agencies.

SMC continues to strengthen the indoor air program by development of standard operating procedures to ensure proper processes and guidance is followed. This ensures knowledge and consistency as well as efficiency within the program. The quality of the air we breathe inside our homes is as important for our health as clean water and nutritious food.



Pictured above are some of the mitigation efforts that have taken place in individual residential homes.





Upper Sioux Community ~ Pezihutazizi Oyate

Daniel Ellenbecker – Environmental Director

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 would be a great addition for the USC but is not possible at this time due to funding and program longevity concerns. Like many Tribes, the USC believes that air quality 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 R5, 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 one propane truck to implement NOx reduction measures within the Community. The USC is located in SW Minnesota where 70%-90% of land use is agriculturally related, because of this, the majority of the air concerns for the USC cannot be adequately addressed due to the exemptions granted to agricultural activities in the Clean Air Act.

USC Air Quality Concerns-

1. Limited staff capacity to monitor and engage with regional and national conversations and programs for air quality.

2. Agricultural impacts: greenhouse gases from CAFOs, aerial spraying activities (pesticide), conventional pesticide and nutrient (including nitrogen and ammonia) applications, particulate matter from unanchored soils (from tilling), combustion—mainly nitrogen oxides and sulfates from vehicles, power plants and industrial processes, and so much more.

3. In May 2022, Sioux Falls, SD, which is approximately 120 miles from the Upper Sioux Community, experienced a powerful storm system with over 100 mph winds that created massive dust clouds and caused extensive damage across eastern South Dakota . There is limited information



about the impacts of this air quality issue and how the agricultural practices that enabled this storm may be altered to prevent future storms with the ability to cause such extensive damage.

4. Wildfires are becoming larger and more frequent in the United States and Canada, in part due to the influence of climate change. Not only are we seeing hazier skies in Minnesota, we're also experiencing more unhealthy air from wildfire smoke. With a changing climate the USC expects longer fire seasons due to drought and are concerned about the limited ability of the Tribe to address these concerns.

5. Limited funds for Tribes who are treated in a manner similar to a state (TAS) under the CAA. The USC would have limited ability to increase Tribal capacity for activities such as: hiring/training staff, purchasing air monitoring equipment, and meaningful engagement based on the current the funding that would be available through the EPA's 105 CAA STAG funds.



White Earth Band of Ojibwe Gaa-waababiganikaag

Amy Moore – Environmental Coordinator

Program in Existence – No formal program

Program Projects – Radon, Carbon Monoxide, Air toxics

Location – Mahnommen, 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 boundaries include 36 townships which encompass all of Mahnommen 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, but we look forward to the consideration of a formal program in the future.

With the addition of Amy Moore with 22 years of service in the White Earth Reservation Business Committee, air quality outreach has been steadily increasing. The development of the radon monitoring program has been a focus. Amy has completed NRPP Radon Measurement Professional course through Kansas State University and Radon Fundamentals online course through the institute for Tribal Environmental Professionals

Current projects and outreach:

Projects: Radon QAPP development and home testing. Future: Provide CO2 monitors to community members.

Outreach: focus on vulnerable populations engaged in Harm reduction Services. Air Quality outreach has included indoor air quality during home heating season, outdoor air pollution sources & COS awareness. These outreach events are coordinated with Registered Nurses from the Public health division to provide environmental topics that tie into health & wellness.





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. 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. As part of our plan implementation in 2022, we participated in meetings with Tribal and state partners regarding the EPA’s Risk and Technology Review (RTR) for Taconite Iron Ore Processing. Specifically, meeting discussions focused on EPA’s lack of requirements for emissions test data of dioxins and other organic hazardous air pollutants from taconite facilities for the RTR that is to be issued by November 16, 2023.



Taconite facility near a wild rice lake within the 1854 Ceded Territory



Bad River Band of Lake Superior Chippewa

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Forest County Potawatomi Community

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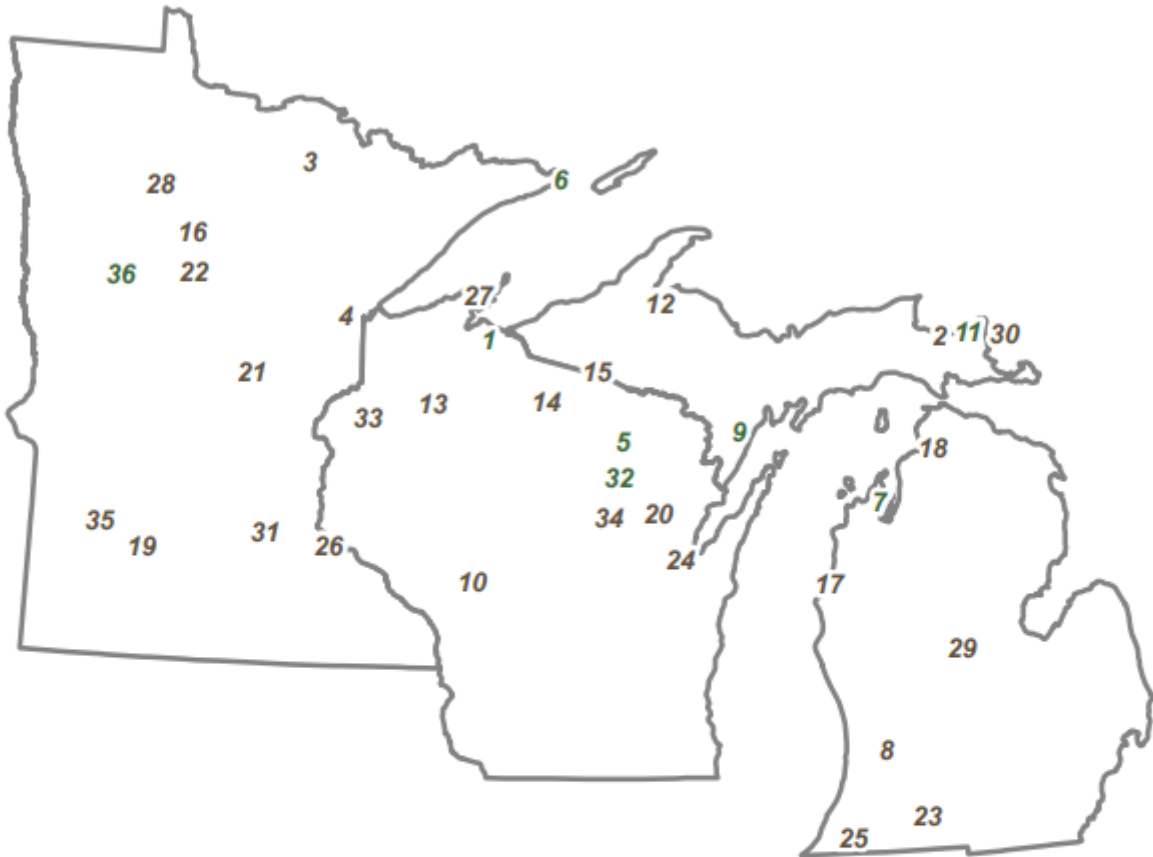
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US EPA Region 5 Tribes



- | | |
|---|---|
| 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 |

