Tribal Air Resources Journal

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

2021 Edition Volume XIII

In this issue:

Wildfire smoke setting records for many Tribes, lead nation in PM

Tribes combating climate change, solar projects highlighted

Ozone study supports
Tribe's AQRVs

COVID: Tribes continue to adapt

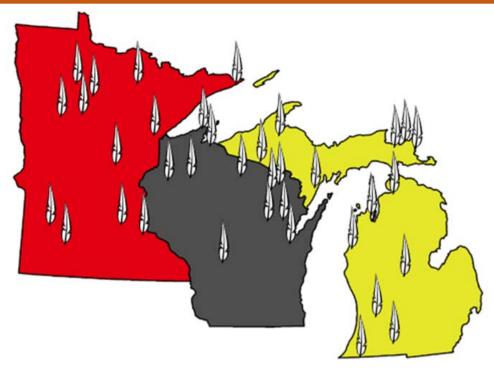
More Tribes work towards Air TAS

IAQ changes due to COVID, both scaling back and going virtual

4 Tribes receive radon SIRG funding, include in PPGs, many more doing radon work outside of SIRG

Tribes getting ready for electric vehicles by installing EV infrastructure

R5 Tribes are highly 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. Because of this, Tribal professionals are multi-disciplinary and often understand their air quality issues better than staff working for other governments. This situation affords Tribal staff unique opportunities to manage their air resources as they deem necessary. However, this also presents distinctive problems for staff to overcome. Each Tribe is a sovereign nation that applies for, receives and is responsible for administering its own funding and is not linked to the others in terms of governance. It is our hope, in our thirteenth 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 thirtieth edition of the Tribal Air Resources Journal. Since 2008 this Journal has provided Tribes with a platform to promote their accomplishments and successes along with sharing obstacles and setbacks encountered along the way. This Journal is not only meant for EPA readers, it is equally meant to tell our story to others across Indian Country, Tribal Nations, federal and state agencies, and other areas of outreach and opportunity. It is the goal of the Journal to create awareness that:

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

The Journal demonstrates a continuing and underserved need where so much more work is to be done. Over the years, the Tribal Air Resources Journal, has expanded from bare bones entries to a document that includes: location maps, list of 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 2021. Needless to say there is so much more that each Tribe does each year and plans for in the future. Please contact the Tribe(s) with any questions or comments as this is the function of the Journal; to create awareness and conversation.

This year of 2021 has created a multitude of obstacles of which has impacted each Tribal Nation differently. Work has not ceased, most Tribes have found ways to adapt and keep moving progressing. Every Tribe has had some issues with staffing; temporary and permanent layoffs and a lack of applicants to fill positions.

This year you will see the TARJ color is orange. This is to raise awareness of the annual Orange Shirt Day (Sept 30th), which promotes discussion and education of the Residential School System and the impact it has had on Indigenous communities. The orange shirt represents Phylliss Webstad story of her first day at residential school when her new orange shirt, bought by her grandmother, was taken form her as a six-yar old girl. To learn more please visits: http://www.orangeshirtday.org

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



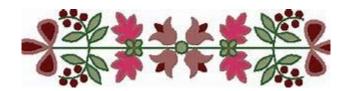
2021 Summary of Facts for EPA R5 Tribes

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. No new TAS applications were submitted in 2021, however a couple of Tribes are working on submissions potentially in FY22 and others have TAS in their ETEPs and long-range strategic plans.
- 1 Tribe has PSD Class I redesignation. 2 Tribes are in their own response to comments stage of Class I redesignation process and plan to submit formal requests to EPA. One additional Tribe has plans 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 12 Tribes requested \$1,626,000 for air quality project/program support from EPA. 12 Tribes were <u>partially</u> funded with R5 FY21 State and Tribal Assistance Grant (STAG) funds totaling \$1,300,169. 7 Tribes received CAA 103 grant funding and 8 Tribes received CAA 105 grant funding. 6 of the 7 105 grantees have incorporated their Air Grants into a PPG grant for FY20. One Tribe has implemented an air media only PPG. R5 has implemented a 2 year workplan with a staggered funding structure for established Tribal Air Programs.
- Tribal Radon (SIRG) Grants 4 Tribes are were awarded SIRG Radon grants in FY20 totaling \$120,000 with two year budget periods. All SIRG grants were incorporated into PPGs to reduce the match (25-40%) requirement to 5%. Multiple other Tribes are utilizing their GAP, Tribal or other funding source to implement radon outreach, testing and mitigation projects.
- Indoor Air Quality Multiple Tribes across EPA R5 do IAQ work via: CAA 103/105 STAG, TOSCA, SIRG, GAP, and OECA EJ funding sources to implement a wide range of IAQ projects.
- At the time of publication, our Region 5 Tribes are planning for the influx of funds through the American Rescue Plan and bipartisan infrastructure law to advance Tribal air and capacity in Indian Country.



Federal Websites

Center of Disease Control, Covid-19 Information

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

Environmental Protection Agency, Indoor Air Quality Information

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

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

https://www.epa.gov/amtic

Air Now

https://www.airnow.gov/

USFS Story Map

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

State Websites

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

Main EGLE Air Site

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

EGLE Air Permits

https://www.deq.state.mi.us/aps/downloads/rop/ROPlist/APS_ROP_Sources_by_Name.pdf
 EGLE Air Division Contacts

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

Wisconsin – Wisconsin Department of Natural Resources (WDNR)

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

https://dnr.wisconsin.gov/topic/AirQuality

Wisconsin Air Pollution Control Rules

https://dnr.wisconsin.gov/topic/AirQuality/Rules.html

Minnesota - Minnesota Pollution Control Agency (MPCA)

MPCA main page

https://www.pca.state.mn.us/

MPCA air data and tools

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

MPCA air permits

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

MPCA Tribal

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

Indian Country Websites

National Tribal Air Association

https://www.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/

Midwest Tribal Energy Resources Association

MTERA.org

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

National/Regional Committees:

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

Workgroups:

- RTOC R5 Tribal and EPA Mining Workgroup
- **RTOC Climate Change Workgroup**
- **RTOC GAP 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 at the R5 Tribal Environmental Program Managers (TEPM) meeting
- EPA R5 Tribal monthly air media conference calls
- Monthly NTAA-EPA-Tribal policy calls
- Multiple EPA-Tribal consultation calls
- Minnesota Tribal Mining Meetings with Minnesota Pollution Control Agency and Division of Natural Resources
- Minnesota Technical Staff Environmental Council (MNTEC) meet monthly mntechhomepage.wixsite.com/mysite/about
- Michigan Tribal Environmental Group (MTEG)
- Wisconsin Tribal Conservation Advisory Council (WTCAC)
- National Tribal Forum on Air Quality R5 Tribes on planning committee, attend 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
- Minnesota Tribal Climate Change Project Inventory

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

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Acronyms

CAA Clean Air Act

CAA 103 Clean Air Act Section 103 Funding
CAA 105 Clean Air Act Section 105 Funding

CO Carbon Monoxide
CO₂ Carbon Dioxide
El 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

PM₁₀ 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

SO₂ Sulfur Dioxide

TAS Treatment as a State

TSP Total Suspended Particulates

TAMS Tribal Air Monitoring Support Center

VOC Volatile Organic Compounds

VW Volkswagen Settlement



Bad River Band of Lake Superior Chippewa

Nathan Kilger, Air Quality Specialist Daniel Wiggins Jr., Air Quality Technician Program in Existence since – 2001 Program Projects – PM_{2.5}, O₃, Hg, Met, Rn, IAQ, Solar Location – Odanah, WI

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

Bad River continues to focus on both ambient and indoor air quality. COVID-19 has affected many air-related activities of the Band's Air Office; indoor air and radon assessments were made difficult with COVID-19, however the Band's Air Office continues to offer services within the boundaries of COVID protocols and restrictions.

The Band was able to commission the three Ishkonige Nawadide Solar Microgrids, executed through a Department of Energy (DOE) Office of Indian Energy grant. Through this project the Band installed over 500 kW of solar photovoltaic production with over 1000 kWh of battery storage at three Tribal facilities. The systems at the Health & Wellness Center and the Wastewater Treatment Plant will offset each facility's electrical loads and offer a level of resiliency if power goes out that could last weeks.

The microgrids were commissioned in May and have provided actual savings over \$31,000 over the last six months of operation. The Band's Air Office will continue to work with the Band's Renewable Energy Team to accomplish energy goals, specifically those that encourage cleaner energy.



One of the three Tribal facilities, the new solar array installation, and the battery storage (gray metal box in the foreground) linking the array and the facility.



Bay Mills Indian CommunityVacant Position-Gap Coordinator Program in Existence since – 1991 Program Projects –IAQ, Radon

Location - Brimley, MI

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

Currently, BMIC has GAP funding. However, due to staff turnover, the position that handles air quality is currently vacant. There are challenges in filling the position as it is part time position and considerable effort is required to have a new staff attain Certified Radon Specialist. Several options for filling the position to move air quality work forward are being considered. It is a priority to work on improving clean air within the Reservation, creating an interest in the community and opportunity for sustainability of the Program for future generations.

Past work in collaboration with ITCMI has included radon testing all homes within the BMIC Housing Authority to identify structures that require mitigation and ensure families with radon mitigation systems already in place continue to function. Due to the COVID 19 pandemic, this work was not able to be performed this past year. Plans for the future are to continue to build upon the relationship with BMIC Housing Authority to ensure residents have good IAQ, free of radon. Future goals are to expand testing to the fifteen Tribal service buildings and four enterprise locations, serving as the Reservation's primary employment centers. Enterprise alone employs over 700 staff members who spend 8 hours a day, 365 days a year within the buildings they work.

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





Bois Forte band of Chippewa

Chris Holm -Environmental Department Program in Existence since - 2002 Program Projects -IAQ, Asthma Awareness, Climate Change Location - Nett lake and vermillion (Tower), MN

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 This is a change from our previous status as an Indoor Air Quality Center of evaluations. 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

Anthony Mazzini - Air Quality Technician Phil Defoe - Air Quality Technician 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 was the first Tribe in EPA R5 to have a dedicated Air Program and in 2004 became the first to be granted Tribal Authority to administer parts of the CAA. The Band uses this status to receive advance notice of permit issuance from the Minnesota Pollution Control Agency. The Program provides the Band with expertise on environmental issues related to air quality. In order to protect Fond du Lac resources, the Band reviews and provides feedback on draft permits and regulatory actions and provides education and outreach to Band members. The Band has been able to develop its Program, assert its sovereignty, and achieve excellent working relationships with Minnesota and Wisconsin permitting agencies, as well as with EPA R5.

In order to assess the effects of air pollution on the Reservation, the Air Program operates an ozone monitor, a PM_{2.5} continuous monitor, and a mercury wet deposition monitor. Data on leaf litter mercury dry deposition has been collected for nine field seasons to date. The goal is for this data to assist in helping the scientific community study and predict the fate of mercury emissions in the environment and evaluate water quality in the area, as well as determine the effectiveness of mercury controls. A Purple Air sensor was recently installed to help track pollutants from wildfire smoke across the state.

In 2019 and 2020, the Band received awards in three rounds of VW Settlement funds, with fourth round funding expected in late 2021. The majority of these funds were used to replace older diesel heavy vehicles and install electric vehicle charging stations at three different locations on the Reservation. One of these locations, the Black Bear Casino Resort, is an important one as it fills a gap in the state's network of stations.

The Band continues to address indoor air quality issues as they arise, as well as reviewing and commenting on proposed permits and regulatory actions. The Fond du Lac Air Program will go into 2022 with new staff in both the Air Program Coordinator and the Air Quality Technician

positions.

PM reductions with offroad diesel retrofit



Forest County Potawatomi Community

Natalene Cummings - Air Quality Program Manager Joe Cebe - Air Quality Specialist Program in Existence since - 2002 Program Projects - O₃, SO₂, PM₂₅, Acid & Hg deposition, Litterfall, MET, &

Location - Crandon, Forest County, Northeastern Wisconsin

The FCPC's Ambient Air Monitoring Program is 20 years old in 2022! With modest beginnings, the Tribe began gathering air pollution data to establish a baseline of air quality within the region in support of its 1994 application to EPA for Class I designation under the Clean Air Act. The Program started with O3 and SO2 analyzers for gaseous pollutants, and TSP and PM10 collectors for particulate pollution, based on EPAs recommendations for rural monitoring sites. In 2004, FCPC partnered with the Wisconsin Department of Natural Resources to facilitate mutual support, technical assistance and data sharing that continues to provide high quality data used to determine regional pollution trends and attainment of the NAAQS for both FCPC lands and neighboring counties within the State. In 2005, FCPC's concern for high Hg levels in fish consumed by its members facilitated participation in the NADP MDN and NTN national networks to gather data on acid and mercury deposition on Tribal lands and in waters. And, following EPA's official 2008 designation of FCPC's lands as Class I, FCPC partnered with the Interagency Monitoring of Protected Visual Environments (IMPROVE) network in 2017 to collect data on "visibility", an Air Quality Related Value (AQRV) identified by FCPC under its Class I authorities.

In addition to visibility, the Tribe formally specified water quality, aquatic systems and vegetation as AQRVs and established pollutant thresholds for each that must not be exceeded by any proposed new "major" pollution emitting facility, ensuring adequate emission controls are in place to protect FCPC's resources.

The success and accomplishments of FCPC's Air Quality Program were and continue to be possible through grants provided by EPA, including GAP, CAA 103 and 105, and the Multipurpose Grant. More recently, with CAA 103 funds, FCPC completed a study conducted in partnership with the US Forest Service - Northern Research Station, to observe impacts of various ozone concentrations on common herbaceous plants utilized by Tribal members for subsistence and cultural activities. This study supports the vegetation AQRV threshold for ozone defined by FCPC under its Class I authorities and assures these important plants are protected from elevated ozone levels. Consistent funding from one year to the next is crucial to Tribal Air Program successes, as are steady increases from year-to-year to enable Tribes to build on their capacity and expertise, and to provide funding for others to initiate air programs.

US Forest Service Research Scientist and FCPC Botanist partners provide tour of study plants in greenhouse to EPA R5.





Grand Portage Band of Chippewa

Vallen Cook - Air Quality Specialist Program in Existence since – 2003 Program Projects – PM_{2.5}, IAQ, Asthma, Hg, Regional Haze, Renewable Energy, Enviro Education, Climate Change, Permit Review Location - Grand Portage, MN

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

The effects of COVID-19 on Grand Portage's Air Program are still lingering, like other reservations have had a longer-term impact. Usually, our most significant issue for us is Indoor Air Quality. Tribal members are still hesitant to let outsiders into their homes even with proper PPE, so engagement and assessments have been very low. Another issue occurring is the number of days during the summer in which we had to issue air advisories from wildfires out west. We had a few days in August and September 2021 where the Air Quality index ranged from unhealthy for sensitive groups (101-150, orange) to unhealthy (151-200, red). Grand Portage usually only has one to two days of unhealthy for sensitive groups (101-150, orange); this is the first time in a long while data-wise, we hit consecutive days of unhealthy air (151-200, red).

Adjusting to working from home has been an interesting transition as most of the staff within the Department, aside from those who have fieldwork, predominantly opt to work from home. For the time being, many face-to-face conferences and meetings have been held virtually. There is a consensus that meeting with people face-to-face is missed by many. Talking to a screen degrades the experience of talking to a person. It's great that the technology has progressed to a point where we can have virtually meetings, but it is not the same.

We continue 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 and the liaison between TAMS and the National Tribal Air Association.





Hollow Rock in Lake Superior on Grand Portage Reservation



Grand Traverse Band of Ottawa & Chippewa Indians

Jenna Scheub-Environmental Services Coordinator Program in Existence from 2002 to 2010

Former Program Projects - Ozone, IAQ Inspections, 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. In support of the importance of Air Quality and other Tribal programs, GTB is working to provide helpful input on air quality to other regional Tribes.





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

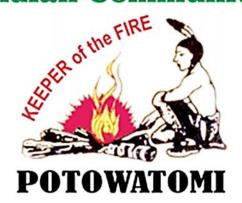
Mike Shuster -Environmental Services Coordinator Program in Existence since-1993 Program Projects - IAQ Education, Tire Disposal, Rn Testing Location - Wilson, Michigan

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 data reporting process were made in 2021. Also, the Ho-Chunk Nation's air monitoring dataloggers each recently received operating system upgrades. Throughout the on-going Covid-19 pandemic, the Nation's ambient air monitoring efforts were able to proceed as originally planned.

On the Indoor Air Quality side of things, 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, since the pandemic first began. The Nation has returned to utilizing onsite visits to conduct home assessments for the requests that have been received.

The Ho-Chunk Nation is very close to completing the drafting of its Clean Air Act "Treatment as State (TAS)" application. The Nation plans to submit the application to the EPA by March 2022. Upon completion of the application and approval of the Nation's TAS status, the Air Quality Program will begin to apply for Clean Air Act Section 105 project funding.







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

Anthony Rinna, Environmental Specialist Bill Bernier, Registered Sanitarian Program in Existence since - 2000 Program Projects - IAQ, Radon Location - Sault Ste. Marie, MI

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

Past activities performed by ITCMI staff include individual indoor air quality assessments through contract services, ambient air monitoring, and radon testing of individual residences and of multi-family dwellings.

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





Keweenaw Bay Indian Community

Location - L'Anse/Baraga, Michigan

Jane Kahkonen - Air Quality Specialist
Program in Existence since - 2012
Program Projects - Indoor and Ambient Air Quality, Rn, Education, Outreach, Air Sensor Monitoring, and Local/National CAA Issues

The Keweenaw Bay Indian Community (KBIC) is located in the Upper Peninsula of Michigan in a rural area on the shores of Lake Superior within the 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 FY2021, 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, and educational outreach. Current projects include the deployment of multiple air sensors for obtaining baseline PM2.5 data and an EJ exposure assessment study of atmospheric contaminants from legacy and active point sources on and adjacent to the KBIC Reservation. Although COVID has changed the way we carry out many of our AQP activities, we continue to adapt with health and safety protocols in place.

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 2022 and how these disparities can be addressed within our Tribal Air Programs in R5.



Wildfire Smoke over the Keweenaw Peninsula – July 2021 (NASA photo)



Lac Courte Oreilles Band of Lake Superior Chippewa

Brett McConnell - Environmental Specialist Program in Existence – 2000-2005 Program Projects - Radon Monitoring/Mitigation, NADP Network, Mold Location - Northwest, Wiconsin

Due to Covid and staffing issues the Lac Courte Oreilles was unable to be reached for a submission. This highlights the fragility of Tribal programs when staffing and capacity building is sidelined by an outside stressor such as Covid.





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, COVID-19 Incident Command, Education and Outreach Location -Lac du Flambeau, Wisconsin

Throughout the Covid-19 pandemic our Tribe utilized initiatives within our Climate Change Resiliency/Pre-Hazard Mitigation plan to address many of the concerns related to this outbreak. Part of the plan addressed community health outbreaks. The Incident Command Team and Tribal Council-Administration were more prepared to implement and take the necessary actions needed to minimize the impacts to our community. 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-19 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. On a good note; the COVID safety measures at our Tribal Casino has led to a smoke free gaming facility.

Air Quality Protections are needed for direct air pollution, depositional pollution into the environment, air quality degradation, and cumulative pollution effects. These threats are impacting Ceded Territory treaty reserved resources both within the Reservation and within the Ceded Territory. One of those threats in recent years is the increase of UTV/ATV trail dust clouds in sensitive environments. Air quality evaluations and planning in advance of new trails is urgently needed both on Reservation and within Ceded Territory.



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 an FTE 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 19 pandemic resulting in less staff time available for air program development.

July 15 2021 Sunrise over Pokegama Lake air quality affected by wildfire smoke





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

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

More research is being done to help restore our wild rice beds. There has not been a crop on Lake Lac Vieux Desert since 2012. An eco-harvester is currently being used to help clear the vegetation in the rice beds with the hopes that is will allow the rice to grow without the competing vegetation.







Pictures of a Tribal council member operating the weed harvester on Lake Lac Vieux Desert and then paths they leave.





Leech Lake Band of Ojibwe

Carma Huseby – Air Quality Specialist Brandy Toft – Environmental Dep Dir Program in Existence since – 2001
Program Projects – Hg (wet, litter, spec), IAQ, Met, PM_{2.5}, Rn, Diesel, Toxics, Solar, Permits/Rules, Mining, Sustainability, Forecasting, MTERA Location – north central Minnesota, HQ located in Cass Lake, MN

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

Leech Lake's goals for sustainability continues with 5 current and 14 additional proposed EV chargers, 260 Kws of solar PV, of which 200 Kw serves low income households, and a multiyear 22 building Guaranteed 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. The LLAP has updated the meteorological equipment to the newest models, replacing the original equipment purchased in 2003. LLAP' BAM is integrated into the State of Minnesota's PQAO and Air Forecasting Networks 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 MPCA to upgrade our BAM1020 PM_{2.5} monitor to the, new state network, Teledyne PM_{2.5} monitor. The LLAP also has a BloomSky camera collocated with the BAM which is a weather camera station that measures temperature, humidity, barometric pressure and precipitation. This also allows Tribal members to see live conditions and take precautions when PM levels are high. https://map.bloomsky.com/weather-stations/faBiuZWsnpapmKqr. The LLAP installing 4 Purple Air Sensors throughout the Reservation and joining the Purple Air Wildfire Smoke Management network with the State of Minnesota and USFS. In July, LL lead the nation in PM related to wildfires. LLAP's monitors provide data and fulfills a data gap that Leech Lake has had concerns about for years and is now acknowledged.

Other work in 2021 continues to protect and maintain LLBO's air quality as Leech Lake is surrounded by 24 Title V facilities of varying industries: coal fired EGUs, wood/paper, waste incinerators, natural gas compressor stations, and six 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 October 2007.

LLAP PM_{2.5} monitor



LLAP is engaged on local, regional, and national venues {NTAA Vice-Chair, R5 RTOC Minnesota Representative, TAMS, NRAP, CRCPD, 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 and Radon grants. The LLAP looks forward to building and expanding capacity to better serve LLBO, while working with partners to leverage resources and promote air quality issues in Indian Country. During Covid, Staff were deemed essential and were able to continue fieldwork while working from home for 15 months. This limited our work related Covid impacts and kept the LLAP serving the Tribal community.



Little River Band of Ottawa Indians

Corey A Wells – Air Quality Specialist Allison Smart – Environmental Division Manager Program in Existence - 2005 Program Projects - O₃, PM_{2.5}, MET Location – Manistee, MI

Little River Band of Ottawa Indians (LRBOI) began its Air Quality program in September of 2005 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 see if there are 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

Jon Mauchmar – Environmental Specialist – Air Quality
Program in Existence since – 2004
Program Projects – IAQ Education/Outreach, Renewable Energy/Energy
Efficiency, mercury sampling, capacity building, past O₃ and PM
Location – Harbor Springs, MI

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

In 2002, LTBB initiated an Air Quality Program that was focused on educational outreach and home radon monitoring. In 2004, the program was expanded to include a part-time Air Quality Specialist and 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 PM2.5 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.

In 2022 we will be working with LTBB Housing and Health Departments to find a way to conduct IAQ assessments while following LTBB COVID-19 protocols. Through such consultation, the Air Quality Program has been able to assist LTBB Housing on locating areas in need of repair, cleaning, and preventative maintenance that will increase IAQ. Due to the tight building envelope designs used in our area, mold and ventilation are constant issues for LTBB IAQ.

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





Lower Sioux Indian Community

Deb Dirlam - Director, Office of the Environment Program in Existence since - 1992 Program Projects -IAQ, Ambient Air Quality, Education Location - Morton, MN

The Lower Sioux Indian Community (LSIC) is located along the Minnesota River in Morton, Minnesota. The Reservation is comprised of 1,923 acres of "trust" land held for the Tribe. The Community contains mostly flat agricultural land along with approximately 250 acres of timber and brush and Minnesota River escarpment. The Tribal commercial center sits on the uplands and is surrounded by agricultural land, prairie pothole wetlands and Tribal housing. The Tribe is governed by the elected five-member Lower Sioux Community Council. The 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 with 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. Given the drought conditions during the Summer in 2021, the Council, OE and Legal worked to put into place burning restrictions to decrease the risk of uncontrollable fires. The OE staff worked closely with other Tribal Emergency Response Committee (TERC) members to complete the Tribal Hazard Mitigation plan (THMP). The Lower Sioux THMP does address air quality-related concerns related to natural disasters (wildfires, droughts) and mitigation measures to reduce potential hazards. OE staff continues to coordinate the Climate Adaptation and Renewable Energy Committee -CARE (the former Renewable Energy Advisory Committee, established in 2016). This multi-departmental committee assists in climate adaption and renewable energy development including advising on topics such as Climate Resiliency. 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.



Air Projects/Programs for FY 2021-2022

- •Open Burning, Barrel Burning, Fire Prevention, Permitting
- •Mold/Moisture technical assistance to Housing; working with residences affected by flooding
- •Research on air quality concerns related to animal 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, El, IAQ, Alternative Energy Projects, Radon, Climate Change Adaptation Planning Location - Shelbyville, MI

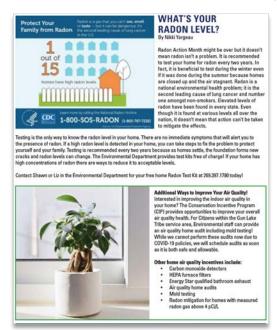
The Match-E-Be-Nash-She-Wish Band of Potawatomi Indians (Gun Lake Tribe) is a federally recognized Indian Tribe located in southwest Michigan with 588 enrolled members. The Reservation is composed of 735 acres held in trust by the United States Government for the Tribal community and possesses no exterior boundary. The 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 filter
- Mold testing
- Radon mitigation for homes 4 pCi/L radon gas or higher
- Radon detectors
- De-humidifiers

The Gun Lake Tribe has had to cancel all "in-house" indoor air quality audits for Tribal Citizens in 2021 due to COVID-19 restrictions. The back log continues to grow! The Tribe has increased air quality education through Facebook/Instagram posts and monthly newsletter articles. The Tribe continues to gain training and air quality equipment to grow capacities to nizhokmëwak Nokmëskinan "protect Grand Mother Earth" for the next seven generations.

- Mnoyén- Gun Lake Tribe





The Gun Lake Tribe's Non-Point Source Management Plan was approved by the EPA in 2019. The Tribe is excited to be implementing projects identified in this plan. Recently, all agricultural properties now have a mandatory 100' buffers along waterways and wetlands.



Menominee Indian Tribe of Wisconsin

Jeremy Pyatskowit - 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 v 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 because we filled a gap within the state for collection. One of the reasons the air funding was cut was because there is not a huge issue with acid rain or mercury levels within the Reservation. There is no industry on the Reservation except a Tribally operated sawmill in the Village of Neopit.

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. For most of 2021, Departments have been working back in the office as last year staff worked from home due to Covid 19. This has put all field work, report writing, and grant writing behind.





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

Charles Jirô Lippert – Air Quality Specialist Program in Existence since – 1996 Program Projects –O₃, IAQ, MTERA, PurpleAir Location – east-central Minnesota

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

The Air Quality Program actively addresses air quality improvements at all levels—personal, indoor, outdoor, local ambient, regional ambient, and international ambient—to ensure Band members are not dispossessed of their right to clean, healthy air. The Band continues to cooperate with MPCA in monitoring for O3 and will be seeking re-designation as a Class I airshed, and will restore monitoring of Hg, Met, and continuous and speciated PM25 to characterize, model and inventory air pollutants affecting the air-shed. 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 operated in a minimal bases but was ramped back up in order to meet the programmatic obligations to its citizens. In 2021 the Air Quality Program assisted the Band's Minisinaakwaang Leadership Academy in remote northern Minnesota to acquire a PurpleAir sensor. The sensor allowed the school to include study of air quality and particulate trends in its science curricula and kept students safe and connected to the school remotely. Through public outreach, the Air Quality Program recruited Band citizens and others in Minnesota and North Dakota to join in the PurpleAir particulate sensing. On July 29, 2021 Minnesota's worst Canadian and Western US Fires smoke event occurred. An air quality monitor in nearby St. Cloud, MN registered an AQI of 441—the highest ever value in Minnesota's recorded history, while the Mille Lacs sensors through AirNow Fire and Smoke Map reported AQI equivalence exceeding 600. Data from both the local air quality monitors

and sensors helped inform Mille Lacs' elected leadership on taking necessary public health safeguards to protect the health of all Band citizens.

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) is 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 USEPA grants. The MCT EP develops projects to assist in the protection of MCT land both on and off the 6 component Rreservations. This requires protecting the quality of the water, air, and land resources by supporting the basic infrastructure of the MCT 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 Tribe 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 constituent Band Aair Pprograms 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 John Rodwan-Environmental Director Program in Existence since - 2001 Program Projects - Radon, El, 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 from non-local wildfires is also a concern. 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.

To date, NHBP-managed structures have had 197 radon tests and 28 mitigations and show average radon levels of 1.7pCi/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. This year, even during pandemic scheduling, we were able to get our Radon QAPP finalized and approved by EPA.

Current staff working on air projects are part-time, and like many other Tribes, also serving in other environmental positions. In addition to this, the COVID-19 pandemic has slowed our efforts to complete an El. The Tribal Air Monitoring Center was a great help in providing us with contacts to explore the potential for outsourcing this work.

NHBP is interested in particulate pollution as it impacts community health. Studies from reputable air quality control agencies indicate high levels of correlation between PurpleAir (PA) sensors and expensive, commercial-grade sensors used by EPA. In 2021, we constructed protective housings for an additional 16 PA monitors. With help from our Communications Department, we created a social media post to ask for volunteers and were thrilled with the response from our Membership. There are currently 16 NHBP AirKeepers. We cited each monitor at Tribal Member homes in 7 counties in Michigan. Five are currently having wireless or electric connectivity issues (not connecting to the public map), and 2 are waiting to be hooked up after NHBP Government pandemic scheduling allows.



Our ambient air screening for particulate pollution with low cost air sensors has kept us connected with our members, in an era when staying connected has proved difficult. It also gives our members ownership of a significant environmental initiative and gives them direct information about the condition of their own air. We hope to summarize screening trends in some way for our membership in 2022.

Purple Air Tribal AirKeepers sensor and housing.



Oneida Tribe of Indians of Wisconsin

Victoria Flowers-Environmental Compliance Coordinator Program in Existence since – 1988 Environmental, Health & Safety Division established Program Projects – Capacity building, IAQ, Radon Location – Oneida, Wisconsin

The Oneida Nation Environmental, Health and Safety Area has secured an EPA CAA grant to reestablish and expand its Indoor Air Quality Program.

The goal of this grant is to establish programmatic capability by training staff to serve as a resource for the Oneida Nation and be active in EPA Region 5 initiatives, such as participating in regional dialogue, performing home IAQ assessments, working with the Oneida Comprehensive Housing Department and Oneida Department of Public Works to be resource for home rehabilitation and supporting Healthy Home programs.

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

Due to the COVID19 pandemic, Oneida Nation citizens are spending more time indoors at their homes and many are working from home. Sources for indoor air pollution are diverse, ranging from radon, mold, moisture, improper venting of combustion sources, improper maintenance and operation of heating sources, smoking, as well as the types of cleaning products used in a home.





Pokagon Band of Potawatomi Indians

Jennifer Kanine - Department of Natural Resources Director Kyle Boone - Environmental Specialist Program in Existence - 2000 Program Projects - Comprehensive Planning, Testing Air Sensors, El Location - Dowagiac, MI

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

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

The staffing limitations that were experienced in 2020 were alleviated in mid-2021. However, the prolonged loss of staff created a backlog of project objectives that the Pokagon Band needed to accomplish. Furloughed staff worked diligently once they were brought back, and many projects are making progress again. However, the extra attention given to the backlog did limit the amount of time that could be dedicated to air quality.

In 2021, the Pokagon Band Department of Natural Resources (PBDNR) was able to trouble shoot its recently acquired PurpleAir sensor. The air sensor is now monitoring for particulate matter at the PBDNR campus in Dowagiac, Michigan. Data from the sensor has not yet been analyzed. Data downloads should begin at the end of 2021 or beginning of 2022.

In 2018, the PBDNR was one of three Tribes in Michigan to be selected by the Natural Resources Conservation Service (NRCS) for the installation of a Tribal Soil Climate Analysis Network (TSCAN) weather station. There were some setbacks in installation due to an early onset of winter in 2019, followed by the pandemic, but in November 2021 the PBDNR assisted NRCS with the TSCAN installation on Pokagon Band lands near Dowagiac. PBDNR will now have access to an array of climate data such as wind speed and direction, precipitation, air temperature, and evapotranspiration. This data will be used to help PBDNR better understand the airshed of the Dowagiac area.

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





Prairie Island Indian Community

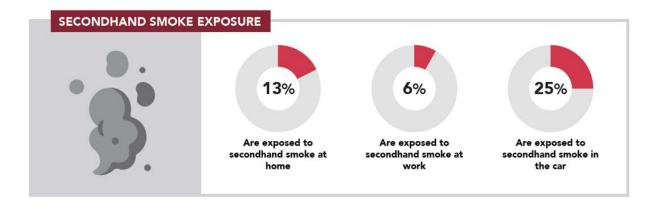
Gabe Miller - Environmental Programs Manager Program in Existence since - June 2014 to October 2017 Program Projects - IAQ, Outreach, Radiological Monitoring Location - Welch, MN

Prairie Island Indian Community (PIIC) is located between the Mississippi River and Vermillion River in southeastern Minnesota, downstream of the Twin Cities. In 2014, PIIC established an Air Quality Program under 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 just three blocks away from the community with spent fuel casks storage on-site, which is a high priority concern for the community. Sampling for radiological particulates has been ongoing since 1993 with a new monitor installed in late 2019, thanks to contract funding with the BIA.

An assessment of 142 Prairie Island Tribal members was conducted in 2019 in partnership with the American Indian Cancer Foundation (AICAF) and the PIIC Tobacco Cessation program. The data shows that 13% of respondents were exposed to secondhand smoke at home, and 25% in the car. 86% of respondents do not allow smoking in their home.

Tribal land is located in a high-risk zone for radon and flooding, further contributing to indoor air concerns. Testing for radon in Tribal community homes and combating mold growth has been important and was previously conducted under the Tribe's Emergency Management and Housing Departments through Minnesota Department of Health (MDH) testing kit support, though this project has also been halted due to staff turnover. Additionally, railroad, KFOS, and agriculture, as well as ethanol plants to the north surround the Tribe. These all contribute to ambient air concerns. A change in Tribal administration priorities would be necessary to re-start the Program and address air quality concerns.



Tribal Tobacco Use Project II Key Findings Report for Prairie Island Indian Community (AICAF)



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 eleventh 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 VW Settlement, and studying PM2.5 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. Also, the Air Program and NTAA worked with these entities in providing informational webinars for the re-opening of Tribal Buildings during the COVID Pandemic, in which two complete webinar series are available on the NTAA website. Current collaboration with the Red Cliff Community Health Center staff is ongoing during the COVID Pandemic as it pertains to Indoor Air Quality.

The Program has received continued CAA 103 funding 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 been 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}, Hg Leaf Litter, Outreach Location – Red Lake, MN

The Red Lake Reservation is a federally recognized closed Reservation encompassing over 835,000 acres of north-central Minnesota. The Reservation is the largest within EPA Region 5, comprising greater than 59% of the Federal Indian Trust Land of the Region. The Tribe currently has just over 15,000 enrolled members, of whom about 7,500 reside on the Reservation. Preserving the Reservation's abundance of natural resources is critical to Band members' health, welfare, traditional ways of life and economic viability.

The Red Lake Department of Natural Resources (RL DNR) began an Air Quality Program in December of 2007 with GAP funding and in the spring of 2009 secured CAA 103 funding. With the approval of its TAS application, the program transitioned to CAA 105 funding in 2014. In 2016, the CAA 105 funding was incorporated into a Performance Partnership Grant (PPG).

Red Lake operates and maintains a BAM 1020 $PM_{2.5}$ 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 four older diesel vehicles and is in the process of replacing two more diesel vehicles with Volkswagen settlement funds. These funds were also used to install four electric vehicle charging stations on the Reservation. Red Lake has partnered with MPCA to provide woodsheds to Red Lake community members and to install a PurpleAir sensor in Warroad, MN. There are plans to install additional PurpleAir sensors at other locations on the Reservation in the future.

Although ambient air quality has been the primary focus of the Program, indoor air quality (IAQ) remains a concern. Basic IAQ home assessments of homes on the Reservation are available upon request.

The Program is currently waiting for responses to a community survey done to collect opinions on where to focus time and attention as far as which air quality issues are of most concern. Prioritizing concerns will help shape the Air Quality Program to better serve the Red Lake communities. Other community outreach continues.

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

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



Saginaw Chippewa Indian Tribe of Michigan

Sally Kniffen - Environment Specialist Program - Currently working with ITCM Program Projects - Climate Change, El, IAQ, Air Quality concerns for petroleum extraction operations Location - Mt. Pleasant, Michigan

The pandemic has made it challenging to work, as things tend to take a longer time to complete now due to many factors. Due to Covid and staffing issues the Saginaw Chippewa Indian Tribe of Michigan was unable to be reached for a submission. This highlights the fragility of Tribal programs when staffing and capacity building is sidelined by an outside stressor such as Covid.





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 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. In October 2021, the Sault Tribe took a step forward in asserting its sovereign authority through submitting a TAS application under CAA 105, 505 a(2) authorities.

Despite the challenges the current global pandemic has brought, our Air Quality Program (AQP) has been able to persevere. The AQP has began operating 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. It was extremely challenging getting a site set up during a pandemic as we faced significant hurdles, however we are extremely pleased as it is now operating.

In-person IAQ assessments were able to resume in early spring with additional safety measures in place, only to be later suspended in the late fall due to Covid. We will continue to offer virtual assessments and assist answering any Tribal members questions as it relates to IAQ.

Outreach and training events occurred through a mixture of in person and virtual events. The AQP was able to set up educational outreach booths at two events this year. One at the annual "Engineers Day", in Sault Ste. Marie MI and the other at the Sugar Island Powow, Sugar Island, MI. It was wonderful seeing Tribal members being able to "swing and sway the Anishinaabe way" again. The program gave away free self-test Rn kits and kid orientated educational outreach bags that included AQ coloring books, markers and particle catcher experiment they can conduct at home, they were a huge hit! Sadly, a few events were canceled due to the pandemic this year, but this left room for a virtual collaboration with JKL Bahweting School on creating social media content to promote the Sault Tribe AQP.

In addition, the Tribe was accepted into the 4th funding cycle of the VW settlement this year. The Tribe participated in the 2nd and 3rd VW Settlement funding cycles that gave the Tribe the ability to replace two older diesel trucks with cleaner and more efficient diesel trucks. The AQP has also been gaining capacity and experience on reviewing air quality permits.



Sault Tribe NADP Site



Sault Tribe Environmental Department participating in orange shirt day to honor those who survived the Indian Residential Schools and those who did not.



Shakopee Mdewakanton Sioux Community

Simeon Matthews – Industrial Hygienist
Steve Albrecht – Operations Administrator
Program in Existence since – 2011
Program Projects – Sustainability, Renewables, Composting, Tribal NSR Location – Prior Lake & Shakopee, MN

When SMSC was first organized under federal Reservation status in 1969, it was confined to 260 acres of rural land. In 2021, our community covers more than 4,700 acres, south of Minneapolis. That growth has brought many improvements to quality of life for SMSC and our neighboring communities, but also new challenges. We're affected by air pollution from traffic, industry, and even the wildfires that are setting new records more and more often.

We continue responding to the pandemic; relying on funding from the CARES Act, BIA, and the EPA GAP Program to protect our community against this airborne threat. ITEP and NTAA have been more important than ever this year, keeping us informed of new resources and the constant changes in Indian Country. Our ancestors lived in balance with *Uŋcí Maká*, Grandmother Earth; the carbon from their fires was re-captured to form the next generation of all living things. But the industrial revolution changed all of that, releasing all of the excess carbon that fossils are meant to lock away. Synthetic gases were invented that trap thousands of times more heat than CO_2 . So we're searching for a modern return to balance, for every generation to come. Our clean water, ambient air, and lands are localized resources, but our atmosphere is the one resource that we truly share with everyone; our actions to reduce greenhouse gas emissions benefit all of *Uŋcí Maká*.

In late 2020 we tried to expand our electric vehicle (EV) infrastructure with an electric shuttle bus pilot project cost-share; one year later, the state is still trying to navigate federal contracting requirements. We may have to abandon that hope soon. We also hope to divert even more food waste from landfill, but the state's compost permitting process is ongoing. In late 2021 we began several other projects to assist us chart an aggressive path to carbon neutrality: Investment-grade energy audits of 19 buildings, our first Community-Wide Greenhouse Gas Emissions Inventory, our first Climate Vulnerability Assessment, a Community-Wide Ground Cover, Tree Canopy, and Carbon Sequestration Baseline study, Micro Heat Island Characteristics Baseline study, and Walk Score/ Bike Score Heat Mapping. These studies will conclude in the spring of 2022, to help identify ambitious and effective next steps towards carbon neutrality and a return to balance.

It took several months this year to find a provider for comprehensive home energy audits (the state-subsidized Home Energy Squad only serves customers of the state's two largest utilities).

As we participated in the state's "MN CIP Tribal Initiative" this year, we learned that even though the energy burden is much greater for homes without access to natural gas, a family that relies on propane or fuel oil can't use the CIP to improve their home's heating efficiency. Ten or more utility providers divide some Nations, and each utility uses its CIP funding to assist (or not) the families in its service area as it sees fit.





Sokaogon Chippewa

Tina Van Zile – Environmental Programs Manager Nathan Podany - Hydrologist Program in Existence since – No formal program Program Projects – Building CAA 103 program Location – Mole Lake, Wisconsin

As all of us know, 2020/2021 were tough years. COVID came and normalcy went out the window. Projects were put on hold and community events were canceled. Things that were easy, such as meeting with coworkers, became difficult. In some cases, we lost loved ones who can never be replaced. Due to Covid and staffing issues the Saginaw Chippewa Indian Tribe of Michigan was unable to be reached for a submission. This highlights the fragility of Tribal programs when staffing and capacity building is sidelined by an outside stressor such as Covid.

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





St. Croix Chippewa Indians of Wisconsin

Jamie Thompson- Air Quality Coordinator Program in Existence since - 2004 Program Projects - Indoor and Ambient Air Quality, Radon 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://stcroix ojibwensn.gov/resou rces/epa/





St. Croix Tribal Member: Conrad St. John with his 2 eldest daughters, exercising their treaty gathering rights, harvesting this sturgeon during the spring spearing season.



Stockbridge-Munsee Community Band of Mohican Indians
Antoinette Tourtillott-Environmental Program Coordinator
Program in Existence –No formal program
Program Projects – IAQ, Develop IAQ program, Radon
Location -Wisconsin, between Green Bay WI. And Wausau, WI.

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

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

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





Upper Sioux Community ~ Pezihutazizi Oyate

Amanda Wold - Environmental Director Sydney Finn - Environmental Specialist 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 (AQMP). An AQMP is possible in the future and would be a major step for providing site specific, scientific data for the USC. This Program could be utilized to compare air quality information between the USC and other Tribes within Region 5 and nationwide.

Air quality monitoring is an important program that would allow the USC 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, 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 USC.

The USC's main concerns revolve around a changing climate and how climate change, along with agricultural activities are impacting air quality. Specific air pollutants that are likely to increase with climate change and result in negative health impacts include PM, O3, pollen, and mold. According to the Asthma and Allergy Foundation of America, Tribal communities are exposed to higher rates of air pollution than other communities. Climate change may affect exposures to air pollutants and allergens in three main ways:

- Creating both more windiness and more air stagnation events: On calm days, air can be stagnant, and pollutants can hang in the air as smog. On windy days, smoke and other air pollutants can blow into the region from other places causing poor air quality.
- Increasing temperatures: Rising temperatures increase the demand for air conditioning, which leads to an increased use of fossil fuels that contributes to air pollution.
- Lengthening the growing season: Climate change is lengthening the allergy season, increasing the potency of allergens, and introducing plants with more allergenic pollen.

On-road vehicles; heating sources; off-road vehicles and equipment such as those used in construction and agriculture; and power plants/factories all contribute to USC's air pollution. With the USC located within an agricultural epicenter, the Community is surrounded by PM from agricultural industries. Agricultural activities are exempt from the majority of the CAA

regulations; as such, the USC has not had an opportunity to address concerns created by agricultural activities. One question that the USC has is what are the cumulative impacts to human health due to these agricultural activities, including burning emissions, pig and turkey farms, agricultural vehicles and tractors, bare soil (roads and fields), and pesticides? Access to funding would allow the USC to support a robust Air Program that would be able to investigate and respond to these questions.





White Earth Band of Ojibwe Gaa-waababiganikaag

Jessica Tolifson - Quality Assurance/Business Manager Program in Existence - No formal program Program Projects - Radon, Carbon Monoxide, Air toxics ocation - Mahnomen, MN

The White Earth Band of Ojibwe (Gaa-waababiganikaag), a sovereign nation, is entrusted to protect the land base, natural resources, treaty rights, and the culture and identity of our members. The White Earth reservation, located in Northwest Minnesota, was established in 1867 by a treaty with the United States Government and Mississippi Band Ojibwe. Status as a Tribal Government provides the White Earth Reservation with broad powers, ensuring various protections for the Tribe and its individual members. The Reservation boundaries include 36 townships which encompass all of Mahnomen County and portions of Becker and Clearwater Counties. The area includes five incorporated cities and five major villages.

The Natural Resources Department was established to protect, manage and enhance the resources of the Reservation and is responsible for daily management and monitoring of Tribal resources of the Reservation. Air quality is of great importance to White Earth. Indoor air quality projects are currently in the GAP workplan, however we look forward to the consideration of a formal air program in the future. The current COVID-19 pandemic has made outreach to individuals more difficult in the social settings we are used to such as Tribal events and gatherings. This has resulted in less personal communications in distanced media forms like newspapers and social media. We are looking forward to those face to face conversation's again once we are done with this pandemic.

Healthy Homes environmental education and engagement "Think Green - Live Green" campaign provided information for 100 households on the risks of carbon monoxide and how it can enter your home. Along with, education, there was a CO detectors provided to participants. We had another opportunity to provide carbon monoxide information to fishing derby participants addressing the risks and dangers of CO in fish houses and what to look for if exposure is suspected.

Projects on the horizon:

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







1854 Treaty Authority

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

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

The Bands retain treaty rights to hunt, fish, and gather in the 1854 Ceded Territory (CT). Due to these rights, the 1854 TA is concerned about the availability and health of the resources. The 1854 TA 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 CT, with many projects ongoing and new projects being proposed. The 1854 TA 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 CT.

The 1854 TA does not have a formal Air Program, however 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. In summer 2021 much of the 1854 Ceded Territory was in drought which led to several wildfires, the largest being the Greenwood Fire which burned 26,797 acres in the Superior National Forest. The fires here and in Canada impacted air quality and an alert was issued by the Minnesota Pollution Control Agency for a large portion of the 1854 CT on 8/24/2021 due to conditions expected to be unhealthy for all people.





Air filled with smoke and haze from the Greenwood Fire (Photo: KSTP/Kristen Swanson)

Bad Rover Band of Lake Superior Chippewa

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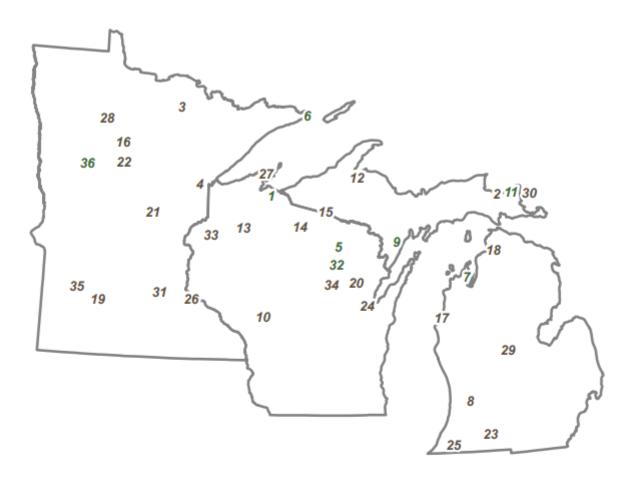
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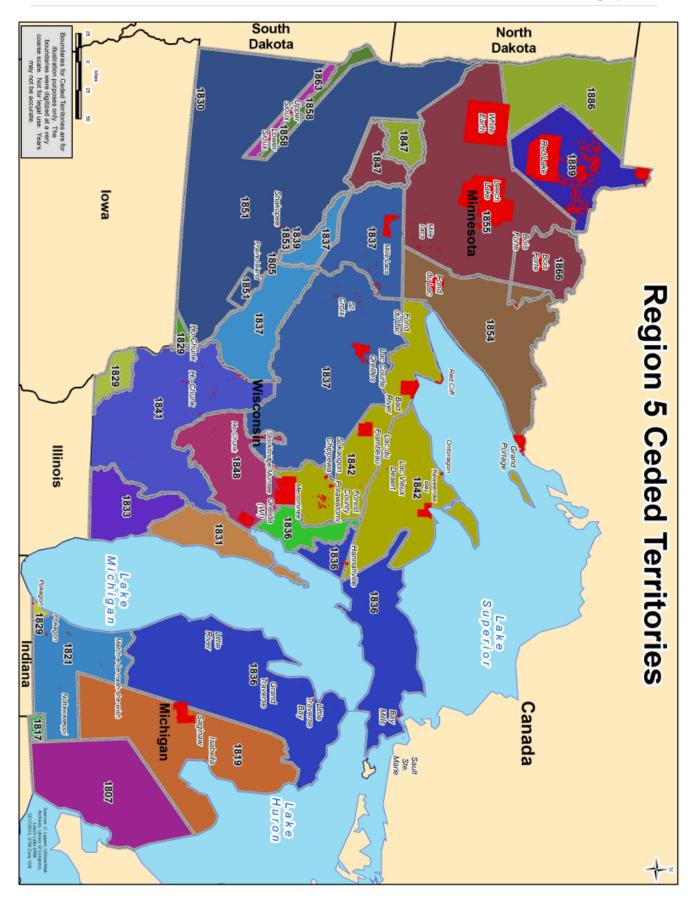


US EPA Region 5 Tribes



- 1 Bad River Band of Lake Superior Chippewa
- 2 Bay Mills Indian Community
- 3 Bois Forte Band of Chippewa
- 4 Fond du Lac Band of Lake Superior Chippewa
- 5 Forest County Potawatomi Community
- 6 Grand Portage Band of Lake Superior Chippewa
- 7 Grand Traverse Band of Ottawa & Chippewa
- 8 Gun Lake Band of Potawatomi Indians
- 9 Hannahville Indian Community
- 10 Ho-Chunk Nation
- 11 Inter-Tribal Council of Michigan, Inc. (Consortia)
- 12 Keweenaw Bay Indian Community
- 13 Lac Courte Oreilles Band of Ojibwe
- 14 Lac du Flambeau Band of Lake Superior Chippewa Indians
- 15 Lac Vieux Desert Band of Chippewa
- 16 Leech Lake Band of Ojibwe
- 17 Little River Band of Ottawa Indians
- 18 Little Traverse Bay Bands of Odawa Indians

- 19 Lower Sioux Indian Community
- 20 Menominee Indian Tribe of Wisconsin
- 21 Mille Lacs Band of Ojibwe
- 22 Minnesota Chippewa Tribe
- 23 Nottawaseppi Huron Band of the Potawatomi
- 24 Oneida Tribe of Indians of Wisconsin
- 25 Pokagon Band of Potawatomi
- 26 Prairie Island Indian Community
- 27 Red Cliff Band of Lake Superior Chippewa 28 Red Lake Band of Chippewa Indians
- 29 Saginaw Chippewa Indian Tribe
- 30 Sault Ste. Marie Tribe of Chippewa Indians 31 Shakopee Mdewakanton Sioux Community
- 32 Sokaogon Chippewa Community
- 33 St. Croix Chippewa Tribe of Wisconsin
- 34 Stockbridge-Munsee Community
- 35 Upper Sioux Community
- 36 White Earth Band of Chippewa



Note: This representative Ceded Territory map is in process of updating. We tried to get it done in time for this publication, however it will be available in early 2022. The updated map will be included in the 2023 TARJ publication and other 2022 publications as appropriate. Thank you -the Editors