

MNRD Warden HOTLINE

Call 715-682-7123 Ext. 1560

The Warden Hotline provides the tribal membership with the opportunity to confidentially report suspected wildlife, recreational and environmental violations.

These violations may include fishing, or hunting out of season, deposit of harmful substances in lakes or rivers or illegal storage or disposal of hazardous waste. All these violations seriously affect the natural resources of our reservation.

Information received on this line will be relayed to a Mashkiiziibii Conservation Warden for investigation. You don't have to leave your name when reporting a violation. However, it is often helpful to an investigation if a Conservation Warden can follow-up on your report to verify essential facts. If you provide, your identity and any information that may identify you, that information will be protected and kept confidential.

If response is needed immediately please feel free to call or email one of the following Wardens:

Brad Bigboy

715-292-7256

chiefwarden@badriver-nsn.gov

Augilucho (Auggie) Godinez

715-292-3118

BRNRWarden@badriver-nsn.gov

Helpful info when reporting a violation

Who is the violator? Describe the people, including their physical description and clothing

What is the violation?

Where did this violation take place? (be as specific as possible)

When did this occur?

If possible, please take pictures, and license plate numbers, anything to help identify the suspects.

Job Opportunities within MNRD

- Stay Tuned for Upcoming Job Opportunities within MNRD!

**To See the Tribe's hiring incentives along with other opportunities, Full Job Descriptions, and Printable Applications visit: www.badriver-nsn.gov/careers/

~MISSION STATEMENT~

The Department strives for resource management which both conserves the natural resources for the future generations and provide for the needs of the present. The departments existence reflects the importance the Bad River Tribe places on its right and ability to exercise sovereignty, self-determination and self-regulation in the area of natural resource management.



Mashkiiziibii Natural Resources Department

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Were on the Web!

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Mashkiiziibii Natural Resources

COMMON GROUND

2025 NIIBI (WINTER) EDITION

What Water Resources Permits do I need?

Kristen Vensland, Wetlands Specialist - wetlands@badriver-nsn.gov

The Bad River Reservation has over 52,000 acres of mapped wetlands, 475 miles of streams, and 38 miles of Lake Superior shoreline. Many of the water resources have cultural and ecological uses that benefit Tribal members and the natural communities. Because of the significance of the water resources and their uses, governing agencies like the Bad River Tribe and the U.S. Army Corps of Engineers issue permitting decisions through different regulations, including tribal codes, to make sure projects are designed and completed so that impacts to water resources are avoided and minimized.

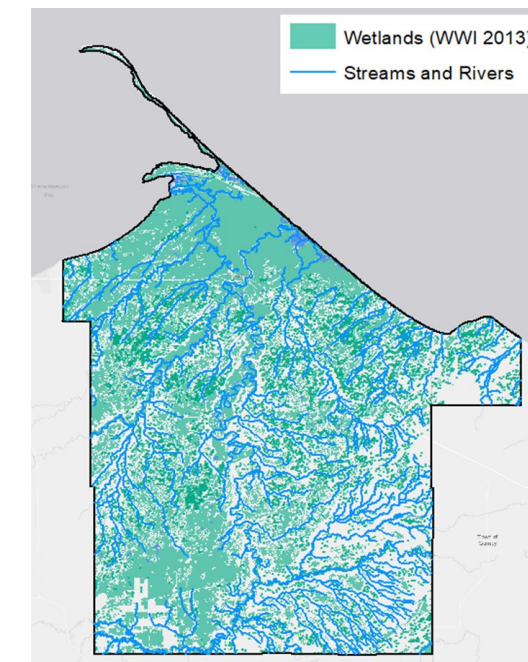
The Mashkiiziibii Natural Resources Department (MNRD) Water Resources Program (WRP) administers three different permits and approvals that you may need if you want to start a project within the Reservation: the Antidegradation, the Clean Water Act 401 Certification of a federal permit, and the Bad River Reservation Wetland and Watercourse Protection Ordinance.

Antidegradation Policy

- The Antidegradation Policy provides for the maintenance and protection of the water quality of surface waters within the Reservation to ensure that all designated and existing ecological and cultural uses are met and maintained as described in the Tribe's Water Quality Standards (2011).
- A project applicant must submit an Antidegradation Demonstration when a proposed project may lower water quality of nearby water resources through discharges to surface water or alterations to the land or waters.
- It is also called the Antideg.
- The Antidegradation Policy requires a 30-day public comment period, and the WRP's recommendations must be brought before Tribal Council for a decision.

Clean Water Act 401 Certification

- The Clean Water Act is a federal regulation that manages the discharge of pollutants into the waters of the United States to help control water pollution.
- The Clean Water Act (CWA) 401 Certification is a requirement under Section 401 of the Clean Water Act where a project applicant must get a water quality certification from the Tribe when any federal permit or license is needed, including—but not limited to—



The map shows all the streams, rivers, and wetlands that have been mapped within the Reservation. For a closer look at the water resources near you, visit the Bad River Water Quality Designations mapping tool: <https://www.arcgis.com/apps/View/index.html?appid=6f44c371217e4ee8b5f1c2c705c7c7c5>.

permits for dredging and filling wetlands from the U.S. Army Corps of Engineers.

- The CWA Section 401 is a direct grant of authority to states and Tribe's with "treatment as a state" (TAS) status which allows the authority to grant a certification with or without conditions, deny certification, or waive.

- It is also known as the 401, CWA 401, 401 Cert, Tribal Water Quality Certification (Chapter 3.12 of Bad River Tribal Codes).

- Once the permit application is deemed administratively complete, a 30-day public comment period is held. After the comment period, the WRP's recommendations for the CWA 401

Special points of interest:

- Non Local Beings Program Update
- 2025 Sea Lamprey Updates
- Brownfield Program Update
- Air Quality Update
- Indigenous Arts & Sciences (IAS) Program Update
- Pig Problem!

Inside this issue:

How is fine particulate pollution monitored in Odanah?	2
2025 NLB Field Season Update	3
2025 Water Quality Sampling	4
Manoomin Community Project	5
2025 Mashkiiziibii Sea Lamprey Activities	6
Brownfield: Caring, Continuity, and Progress	7
Manoomin Gabeshiwin 2025	8
Dust, the catchall of small particulates	9
NIXLE Alerts	10
The Pig Problem	11
Warden Hotline & Job Opportunities	12

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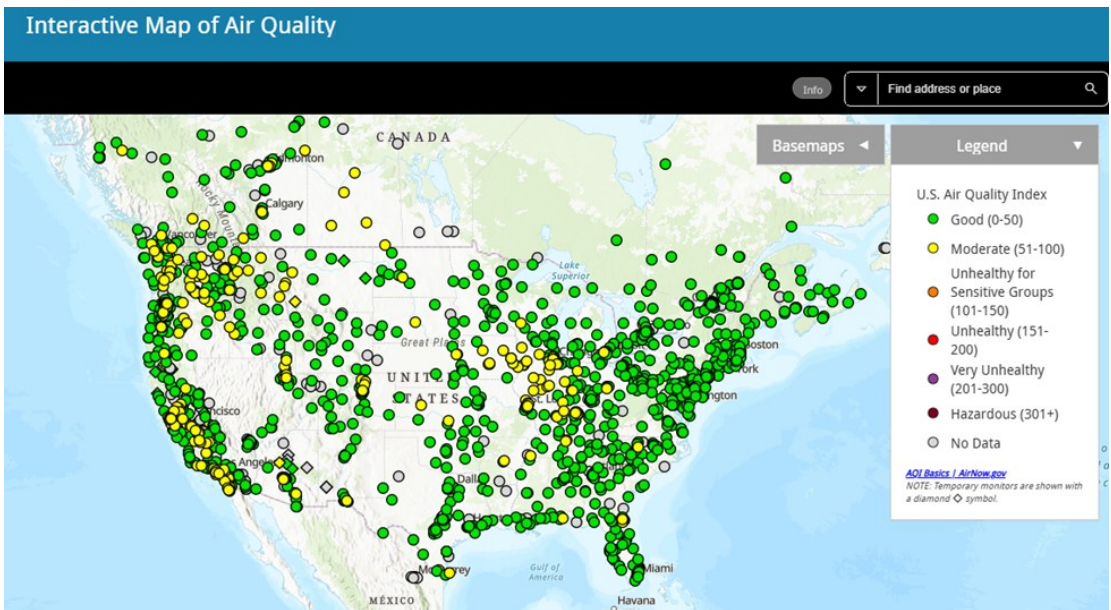
How is fine particulate pollution monitored in Odanah?

Nathan Kilger, Air Quality Specialist - airquality@badriver-nsn.gov

There are air quality monitoring sites spread out across the country. Many are owned and operated by states, typically each state's department of natural resources or environmental quality, but some are owned and operated by tribes. Four of the sites in Wisconsin are owned by the Bad River Band (in Odanah), Forest County Potawatomi Community (near Crandon), and the Ho-Chunk Nation (near Black River Falls and Tomah).

Air monitoring sites can consist of different sampling equipment. The site in Odanah includes a sampler that measures fine particulate pollution. Fine particulate pollution (particles smaller than 2.5 microns) is used as the size threshold because particles this small can cross into the bloodstream when they enter human lungs.

Fine particles can come from burning



(like fires and smokestacks), construction sites, and from vehicle and equipment activities (like unpaved roads or farming fields).

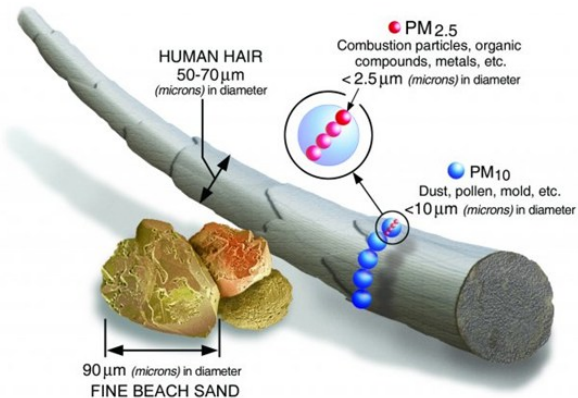
The fine particulate samplers in Wisconsin are all the same model, for consistency in data collection, and they are a model called T640. The photo of the blue box is what a t640 looks like. >>

Data from the T640 in Odanah is collected continuously and is uploaded to the main Wisconsin server in Madison. Servers in each state send their information to EPA servers so that the data is brought together for the entire country.

Bad River operates a T640 for several reasons. First, to monitor human health levels during wild-fire smoke episodes like



those we've experienced in 2021, 2023, and 2025. Second, for a background measurement that is used by state and federal policy to protect human health on a larger scale. Bad River uses the delegated authority in the Clean Air Act to monitor fine particulate pollution which is then linked to topics such as state and federal air permits, and the ability to compare annual or daily measurements to the National Ambient Air Quality Standards (NAAQS).



Brownfield continued...

The "yes, and..." approach:

This perspective of a comprehensive, backward-and-forward view, meant that most times when presented with something new, the answer would be to say 'yes.' Effective in both brainstorming sessions and improv-comedy à la Whose Line Is It Anyway?, 'yes, and...' allows for more thought, more action, and often, more progress. After saying yes enough times, this program had the opportunity to work with federal partners on topics like: disaster debris management planning for the Bad River Reservation, presenting nationally to the US EPA's Community of Practice on Environmental Justice series, and contributing to a scientific paper and framework project on evaluating disaster-driven landscape changes, stream hydrology, and water quality on the Bad River Reservation.

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This brownfield program over the past six years has functioned with a sense of quiet discipline. Some goals or ideas were more or less written down: planning thoroughly, questioning further, taking the extra moment to look, to secure, to speak up. Some of the goals simply came from a different perspective: emergencies, when they come, rarely announce themselves in time, which is why preparation must be steady, ongoing, and utilize lessons learned in the past. Mitigation strategies are not simply procedural checkboxes, they are the lifelines we extend to future workers and community members, ensuring that what threatens us today becomes only a lesson for those who follow. Over the years, the brownfield program has watched these habits take

root in teams and communities, practices taught now becoming instinct, caution turning into culture. Those things will continue to take place, not because someone is watching, but because they have inherent worth. The world around us is worth caring about, the individuals around us will continue to be protected, and progress will certainly be made to create a safer and healthier community than the one that was inherited. In work or in life, one often chooses to do things in a good way, in the right way, or in their own way, and sometimes, you can choose all three. Miigwech.

The Pig Problem

Elle Lozinski, Wildlife Program Manager - wildlife@badriver-nsn.gov

Over this past summer and through the fall, the wildlife program had received multiple reports of wild pig sightings. These reports started to come in around August, but it was just sightings. In September, the wildlife program got the first photo of pigs, and just a week later, we were notified that 2 of them were shot by a hunter. Tissue samples were collected from the pigs so we could figure out what the breed make-up was. Since those initial pigs, 4 additional pigs have since been shot, and genetic material from 2 of those 4 have been sent in. While pigs being on the landscape is terrible news, all of the pigs that have been shot appear to be sub-adults, so there hasn't been any documented breeding yet. We have gotten results on their breed, and they were a cross between the guinea hog and mangalitsa breeds. Pigs will be destructive to the landscape, so if you spot one please contact us at Wildlife@badriver-NSN.gov or at (715)292-2933. We appreciate the communities help with dealing with the pig problem.



2 pigs shot off government road

Sign up for Nixle Alerts



TEXT 'BADRIVER' TO '888777'

There has been a change to the Nixle alert system. You will only need **ONE** key word to sign up for each of the following

- **Tribal Events & Operations**
Gives you warnings of emergencies... (ex. forest fires, floods, amber alerts)
- **Alerts & Advisories**
Gives you updates on community happenings...(ex. poll location times, unexpected department closures)
- **Pow Wow**
Gives you updates on Pow-Wow and other community feasts and celebrations.
- **Public Works**
Gives you updates on road closings and hydrant flushing.

Do you want to know what is happening??

Sign up for Nixle Alerts **NOW!**



BAD RIVER BAND OF LAKE SUPERIOR CHIPPEWA INDIANS

2025 Non-Local Beings Field Season Update

Noah Arbuckle, Nonlocal Beings Technician - nlbtech@badriver-nsn.gov

In the 2025 field season we started looking for Garlic Mustard, Eurasian Honeysuckle, and Glossy Buckthorn on the southern reservation where the Marengo meets the Bad River. We walked in from the first corner on Jusala Rd. and spent the day looking around the river bottom. We found a couple small plants, marked the area using the Bad Elf, then did the survey questions in the binder. We then switched gears, adjusted our eyes and started noticing that the Wild Parsnip was starting to show itself in areas that we dug out this past year. We realized that the Wild Parsnip wasn't as bad as last year in the areas we dug out and bagged them. So, it seemed to be working that way, just checking those areas each year, and marking any new ones as we went along. Cow Parsnip is also around, we continued to use the same method bagged, survey, and mark with Bad Elf. Canadian Thistle was located as well. We continued with those few for a while until Purple Loosestrife started to show up all at once it seemed. Our control method was dig up and remove Purple Loosestrife as much as possible put in a contractor bag, survey, and mark it. I did notice that there were Loosestrife Beetles on most of the plants we harvested, but they can only eat so much, and the Purple Loosestrife was abundant this season. As for Cattails, this was our first year getting certified using the Mobitrac Mb5070 cattail harvester. We got approved to use Cattail Harvester in two spots down on Beartrap Creek (Goslin Rd.). We launched out of Haukaas's boat landing since the

Tribe acquired the land. The Mobitrac worked great. Everybody took turns on it doing both cutting and raking. We ended up with 4 dump trailers full, brought the cattails to Big Lake Organics where they take the



compost materials they collect from designated areas and compost the materials to make top-soil. Recently we cut down some Black Locust we marked

in Franks Field, and some in Old Odanah down by the Bad River. We did partnerships with GLIFWC, and Forestry Dept., forestry cut the trees down, GLIFWC treated the fresh cut tree stump with Garlon along the cambium layer and helped load up dump trailer. Then disposed of it at the Ashland City compost site to get chipped up. After all those objectives it seemed to be a productive year, crew seemed to enjoy the changes in control methods, scenery, using different machinery and most of all being safe.

Water Resources Permits continued...

Certification is brought before Tribal Council for a decision and then submitted to federal agencies for approval.

Bad River Reservation Wetland and Watercourse Protection Ordinance

- The Bad River Reservation Wetland and Watercourse Protection Ordinance protect wetlands and watercourses by ensuring that damage to surface waters from proposed project activities are avoided or minimized to the greatest practical extent so that projects that have the potential to impact water resources do not cause public hazards or destroy natural wetland functions and values important to their general health and uses.
- A permit is usually needed when a proposed project will have temporary or permanent impacts to or near wetlands and watercourses; for a complete list of prohibited activities, please review Section 3.11.070, which can be found in the Law Library: <https://law.badriver-nsn.gov/us/nsn/badriver/council/code/3.11.070>.
- It is often also called the WWPO and Chapter 3.11.
- A permit is often issued once a complete application has been submitted. If an Antidegradation Decision or a Clean Water Act 401 Certification is needed, then a Wetland and Watercourse Protection Ordinance permit is typically issued after the Antidegradation and Clean Water Act 401 Certification decisions have been made by Tribal Council.

All proposed projects located within the exterior boundaries of the Bad River Reservation must submit a project review application so that the WRP can review project plans and identify what permits are needed. A

project cannot start until the necessary permits have been issued or it has been determined that permits are not needed. If you feel that your project is an emergency, then please complete a project review application and reach out to MNRD to let us know the circumstances so we can work through the project review process and initiate emergency permitting procedures if they are needed. For information about the Project Review Process, please visit the Natural Resources Project Reviews webpage: <https://www.badriver-nsn.gov/natural-resources/projectreviews/>.

During this process, it is important to stay in communication with the MNRD in case additional information is needed to complete the project review application. Some projects may need to gather additional environmental data and information before MNRD's review can be completed and permits can be issued. Because some environmental data can only be collected during the growing season, project applicants should plan for at least one growing season to pass before you get permits or approvals if they are needed.

If you have any questions about the WRP permits or would like to discuss your project, please reach out to Kaylee Houle at waterreg@badriver-nsn.gov or Kristen Vensland at wetlands@badriver-nsn.gov. By working through this process together, we can protect the water resources on the Reservation while the Bad River community continues to grow.

2025 Water Quality Sampling Season

Mark Arbuckle, Water Quality Technician - wrTech@badriver-nsn.gov

With the 2025 sampling season completed, the Water Resources Program (WRP) team at the Mashkizibi Natural Resource Department (MNRD) would like to provide you with a recap of the amount of sampling that took place and cover some of the highlights of our results. First, we would like to provide a little insight into what kind of sampling took place and why we continue to do so.



Surface water sampling can be captured with a simple grab sample which is typically a 1000-ml bottle for rivers, streams, and wetlands. A 125-ml bottle is used for beach monitoring. "Grabs" take place within a 3-ft spectrum of a body of water. Within that spectrum we can monitor the

quality, trends, and needs of the tribal surface waters, not to mention, notify the public of any contingencies related to the monitoring of tribal beaches, rivers, streams, and wetlands. Along with grabs, an "in-situ" is completed using our sonde and digital surveys. Our sonde is an instrument with probes that relay real-time information such as dissolved oxygen, pH, turbidity, temperature, and specific conductance.

As of 2011, the department implemented monitoring tribal beaches to evaluate potential health risks related to potential pathogen exposure during bathing or swimming activities. Being more fair-weather activities, beach monitoring typically takes place from Memorial Day to Labor



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Dust, the catchall of small particulates

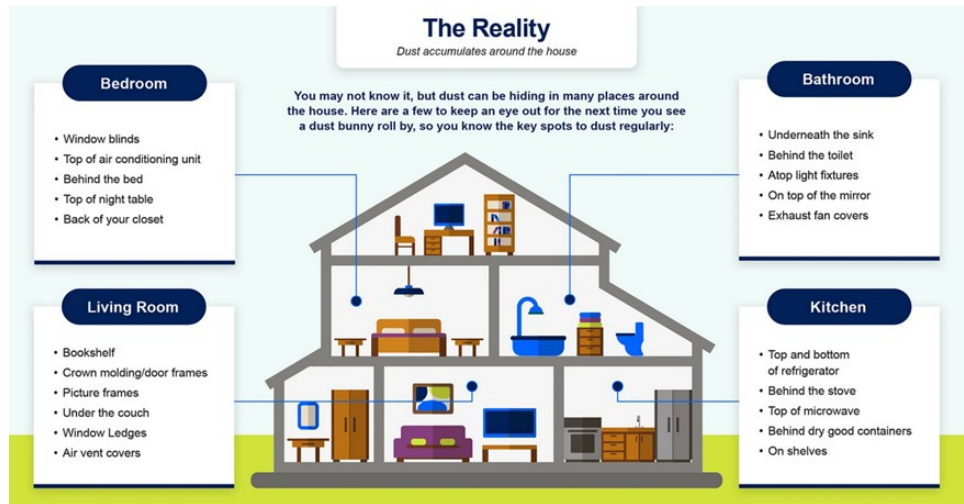
By Zakk Zander ; Indoor Air Quality Tech - airqualitytech@badriver-nsn.gov

We have all heard the term dust before, but have you stopped to think about what you are actually breathing in while indoors and outside? Starting with a broad definition, dust can be anything that is smaller than a half a millimeter in size (500 micrometers) and does include smaller particles like PM10 (10 micrometers) and PM2.5 (2.5 micrometers). PM 2.5 has been in the news recently because of wildfires out west and in Canada. If you want to read more about outdoor dust, read the Spring Common Gound article Blowing Dust from Texas reaches Wisconsin. At the end, I'll go over some clean air /cleaning tips to keep on top of this Sisyphean task.

Bringing this back to indoor air quality, the majority of the dust, about 30-50% that you will be breathing in, will be made of dead skin/hair cells form well anything with skin like dogs, cats, people, lizards, birds, *et cetera*. If it has skin or hair dead cells will be shedding from it. Once the skin flakes are drifting freely in the air they become food for a number of things, such as dust mites. These tiny mites (200-300 micrometers) that specialize in eating dead skin cells and live alongside you in unknowable numbers. While they do provide a valuable service in keeping things clean, they are also a very common allergen for folks with asthma. Often a dust mite allergy is shortened to a dust allergy but as we will see there is far more in dust that could be causing allergy symptoms.

The other fraction of particles held within dust can be a hodgepodge of things. We'll briefly cover a few of the more impactful ones. As I'm sure people are aware, a common component in this mix is plant pollen; I'm sure folks are aware that pollen can cause allergies in people. This portion of dust in the home does change with the seasons, with spring and summer naturally having higher pollen counts due to plants growing and doing their thing. Once the plants senescence (fancy term for a plants ageing and dying) another common allergen starts to grow in, this of course is the mold and fungi. Folks may start to notice it more in the fall and wintertime as things are starting to decompose. However, the mold that is found indoors does best when the temperature is around the mid-70s with about 60% humidity, which happens to also be around what we keep our homes at. The spores of the mold and the mold themselves produce many different compounds with most of them aimed at defending against being eaten or being able to digest whatever surface they are growing on. These compounds have a wide range of effects on the human body with some being used as antibiotics while others can cause life-threatening reactions. I'll leave it there with the mold talk because I will be writing a future article just on that fascinating group of organisms.

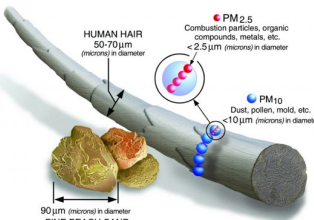
So far, this has just been a walk through the organic component of dust, which is a complex enough topic on its own and



one I have only scratched the surface on. In the interest of space, I'll briefly say this on the inorganic side. It can be as simple as sand being kicked up on windy days and getting brought indoors. Or as complex as figuring out where the asbestos is located within a building. The inorganic side of dust will also be covered in a future article.

So those cleaning / clean air tips I promised. Reducing the humidity to about 50% within the home can slow the growth of both dust mites and mold. Replacing carpets removes a large area that traps dust and mold. Carpeting is prime real estate for dust mites; it's basically an all-you-can-eat buffet and a home wrapped into one. While you are doing the typical cleaning, use a damp mop, damp cloth or duster that can trap and lock dust to reduce the amount that is stirred up when cleaning. Areas around your home that accumulate dust frequently are baseboards, molding, blinds, and shelves. If you have an HVAC system installed, it's a good idea to check every few months and replace HVAC filter at least twice a year. While none of these are particularly flashy or new methods of cleaning, they are just as important as ever. Remember areas that are typically thought of as out of site and out of mind still contribute to the breathing environment and you are inhaling old skin, hair, pollen, mold, and many other substances. So be better than 62 % of millennials and dust your home.

[Dust & Indoor Air Quality Briefing | American Lung Association](#)



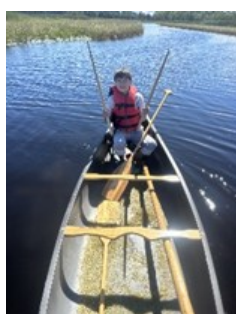
Manoomin Gabeshiwin 2025

Nathanael Secor, IAS Coordinator - IAS@badriver-nsn.gov

This past August 20th and 21st, Mashkiiziibii had another successful manoomin camp at the Tribe's Goslin landing property on Beartrap Creek. This second annual manoomin gabeshiwin had strong community participation with roughly 150 total participants over the two days. The camp highlighted tool making, traditional and mechanized processing, harvesting, and cattail harvesting for making mats.

Waabizheshii Martin Powless opened the gathering with a prayer in Ojibwemowin. Elder Vern Stone led knocker making, with around 20 people including many youth completing pairs of knockers. During the first afternoon, around 10 youth went out harvesting, most for the first time. Their rice was collected and dried to be processed later on day 2. Aiyana Perry taught the traditional method of bundling manoomin with wiigoob (basswood fibers) prior to harvest. The first evening there was a manoomin-themed cooking contest with Bill Roundwind winning first place!

The second day focused on processing the manoomin harvested the day before along with a few additional workshops. David Nevala and Kathy Smith demonstrated how to make traditional push poles with forked hardwood Ys. Sasanehsach Jennings led the traditional jigging demonstration with a number of young helpers contributing. Bickering



Canoe processors - Maria Nevala and JD Lemieux demonstrated how to process manoomin with their portable processing equipment. April Stone led cattail harvesting for cattail mat making. Russ Blanchard cooked food for the gathering the second day including frying fish caught by David Nevala and Adam Oja.

Overall, this was a very fun and engaging camp...chi miigwech to all who participated and especially to the demonstrators!

2025 Sampling continued...

Day with subtle overlap. During the season, we monitored 14 beach locations along with 6 tributary sites. The 14 beach locations are ranked as Tier 1 (most used), Tier 2 (moderate), or Tier 3 (least/lowest) based on the use of the beach and the potential risk to human health presented by pathogens. (e.g. Waverly - Tier 1 - sampled weekly)

In total, 243 beach samples were collected by staff from May to September! We did see 4 exceedances for E. Coli this season at both Waverly and Second Landing 07/16/25, 09/09/25. At that time, you may have seen a swim advisory come across as a Nixel alert, a post to the department's Facebook page, or seen a sign at one of the locations notifying an advisory had been issued.

Since 1997, MNRD has been collecting surface water data within the Bad River

watershed which we refer to as Rivers, Streams, and Wetlands. Currently, we monitor 25 primary sites and 10 secondary sites for rivers and streams throughout the year when applicable. June through August is referred to as the "growing season," during which, approximately 8 variable wetlands sites are monitored along with 4 historical sites. Once collected, rivers, streams, and wetlands samples are then analyzed by water staff for in-house parameters while a separate sample bottle is shipped out for contractual comparison analysis. In-house parameters include Total Suspended/Dissolved Solids, Nitrate, Phosphate, Hardness, Chloride, and E. Coli.

Rivers and Streams collection efforts produced 196 samples (including duplicates) from 178 site visits from January through

November. Wetland collections added an additional 13 samples from 11 site visits over the summer. That's 209 samples that were analyzed by our staff!

This Fall, the water team also collected over 30 macroinvertebrate samples from 19 different sites during the month of October. These samples are used as additional indicators for habitat and water health based on their sensitivity to pollutants. Staff will begin the identification and counting process before contracting for further analysis.

Stay tuned for a Spring 2026 article on some of the findings from the data that was collected during the 2025 sampling season.

Manoomin Community Project

Dan Powless, Manoomin Ashkaabewis - manoomin@badriver-nsn.gov

Bad River MNRD was awarded GLRI FY2025 funding in the amount of \$122,687 to increase the community's awareness of threats to the Kakagon -Bad River Sloughs wetland system. At different times during the 2025 growing season program staff got to identify the Brown Spot fungal disease at various locations within in the sloughs. They found an increase as the season progressed for the disease to be more prevalent.

Community-based efforts have valuable implications for stewardship practices involved with habitat management. An important objective of this project is to integrate community members' personal experience and knowledge of the Sloughs with biological monitoring and increasing traditional ecological knowledge concepts in order to develop strategies for wetland monitoring and habitat enhancement. Their participation in wild rice stewardship efforts, will result in improved community health objectives while learning to monitor the wild rice beds. Also, this project will increase the Tribe's understanding of current conditions, factors influencing wild rice health, and traditional management practices, resulting in more effective protec-

tion and restoration efforts through community engagement.

This project has four objectives:

- 1)** The main objective of this project is to better understand the prevalence of the brown spot fungal disease impacting wild rice beds as well as other possible contributors. This objective includes field survey activities by manoomin program staff throughout the growing season to identify the extent of prevalence and assessment of life cycle conditions of wild rice.
- 2)** Conducting brown spot survey during the open ricing season by tribal harvesters that will provide hands-on interaction with the manoomin resource and increase community engagement.
- 3)** Increase participation of Tribal youth in becoming stewards of the wild rice ecosystem. This objective includes hosting events for youths to attend field outings to observe Brown spot conditions at identified sites. Attend Field trips to identify phenological cycles of manoomin and learn about phenological functions of Wild Sage node sensor. Observe and support events such as the Manoomin Pow wow, Lake Superior Days, Ma-



When infection occurs in the seed, unfilled grains or spotted or discolored seeds are formed. The most observable damage is the numerous big spots on the leaves which can kill the whole leaf

noomin camp activities, integration of Ojibwe language, etc.

4) Increase the success of wild rice restoration efforts. This objective includes improving wild rice restoration efforts with proven technology to harvest native and non-native competitors /invasive plant species with the Tribe's new Mobitrac harvester. It will include competitive native plant species removal and reseedling of wild rice.

2025 Mashkiiziibing Sea Lamprey Activities

Jacob Rodmaker, Fisheries Specialist - fisheryspecialist@badriver-nsn.gov

Mashkiiziibii Natural Resources (MNRD) in conjunction with the United States Fish and Wildlife Service (USFWS) and the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) have managed the Sea Lamprey population within Mashkiiziibing for decades. This year MNRD assisted USFWS with juvenile Sea Lamprey surveys and applying TFM to the Potato River. During the spring spawning run GLIFWC set adult traps to estimate the adult Sea Lamprey population that utilized Mashkiiziibing for reproduction. In June MNRD assisted in applying TFM to the Potato River after Tribal Council approval was received. In summer USFWS and MNRD evaluated the Potato River for larval lamprey for post-treatment efficiency. We found that a backwater of the Potato River had residual larval Sea Lamprey. In November MNRD manually removed 153 larval lamprey from the backwater that had

residuals from the TFM application. These lamprey would have resulted in the loss of 6,120 lbs. of Lake Superior fish. The MNRD is working with other tribal entities to utilize traditional methods on stewarding Sea

Lamprey within Mashliiziibiing.



If you have any questions or concerns feel free to contact MNRD's Fisheries Specialist, Jacob Rodmaker at 715-682-7123 ext 1552 or via email at fisheryspecialist@badriver-nsn.gov.

Brownfields: Caring, Continuity, and Progress

By: Andrew Spychalla, Brownfield Specialist, a.spychalla@badriver-nsn.gov

In every season of both work and life, our relationship with the world around us is shaped by the care we choose to give it. The land, the water, and the air do not ask for much, only that we remember they are finite, and that what we take from them we must also replenish. Commitment to caring for the environment is not simply an obligation of policy or procedure, it is an act of stewardship, a promise passed from one set of hands to the next. Small acts of attention, especially regarding hazards in the home or community: disposing of hazardous materials properly, preventing a spill before it begins, reporting one without hesitation when it does, can ripple across years and protect people we may never meet and places we may never stand.

The caring approach to brownfield science:

The goal of most 'brownfield programs,' on paper, is that the program must identify hazards that could negatively affect human or environmental health when future development occurs. Really, it means to care. To care about spills and their occurrence, to care about something done in the past and figure out if it might hurt someone in the future. If development is planned near a parcel of land where activities took place that could affect environmental or human health, future occupants would want to know. The brownfield program's efforts to discover PFAS compounds in groundwater and soil on-Reservation were, at the time, a shot in the dark to discover if the community was at risk from these chemicals. Much to the surprise of other Tribes at the time, due to high costs and uncertainty in finding what was being sought, that effort ensured that progress can be made toward remediating those areas that do indeed contain PFAS. By caring about these hazards, the community in the present knows the risks are there, as will the Seventh Generation.

Continuity in planning for future risks:

Another goal of a brownfield program is planning ahead for future risks. This risk planning is an effort in community continuity; when things might

turn bad, don't let them get worse. Depending on the age of the reader, many were likely taught how to "duck and cover" or "stop, drop, and roll." Personally, our family had a meeting place if an inextinguishable fire broke out in the home – by the mailbox in the front yard. Preparation for emergencies is of utmost importance for any government, community, or otherwise. The brownfield program has coordinated many Tribally held emergency response roundtable meetings and group exercises over the years. There has been planning for disasters, through contributions to mitigation efforts and disaster management. There has been preparation, utilizing the incident command 'language' throughout those efforts that all emergency responders would understand, as to keep individuals and families in the community safe if an emergency did occur.

Progress can be self-appointed:

Goals that are written down are certainly important to strive for. Again, the main brownfield goal is the identification of hazards, which once known and addressed, would protect human or environmental health. But that doesn't take into account that some places are not in need of massive developments. Some places are better left pristine, beautiful, and unmarred by the very thing that one might think defines the program itself. In my self-introduction in this Common Ground Newsletter, winter 2019-2020 edition, I wrote regarding the land, "...we can't simply throw it away and 'ask for a new one.'" Sometimes, keeping your lands healthy, full of life, and allowing one's background or lifestyle to thrive is the best use of all. To this effort, the brownfield program took a place in helping shape part of Bad River's cumulative impacts assessment project. If there wasn't an immediate risk, nor an obvious one to plan for, why not look into the past to help shape a better future? The passing down of culture, of stories, of life lessons from elders can be the best way to decide how someone younger wants to approach their own future.

...continued on page 11...