

COMMON GROUND

2026 ZIGWAN EDITION
(SPRING)

How is ground level ozone 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 an ozone monitor that measures ground level ozone pollution. Ozone at ground level is a harmful pollutant to human, animal, and plant health.



Ozone is created when two different pollutions (volatile organic compounds and nitrogen oxides) combine with sunshine to create ozone. Certain weather patterns, when there is very little wind to move clean air in, can allow ozone to build up to harmful levels.

The Clean Air Act set national standards that are

meant to protect human health. We compare ozone values to the national standards and can issue health advisories on days with high levels of ground level ozone.

The ozone monitors in Wisconsin are all the same model, for consistency in data collection, a model called T400. In this photo, Bad River's Air Quality Technician is performing annual

continued on page 2.

Special points of interest:

- NIXLE Alerts
- MNRD Upcoming Events
- Piping Plovers Update
- Beach Monitoring Public Notice
- Job Opportunities

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Northern Natural Gas Projects Current and Future

By Zakkary Zander MNRD Air Quality Technician/Radon Program Manager - airqualitytech@badriver-nsn.gov

I'm sure folks have noticed an uptick in the work being done by Northern Natural Gas (NNG/Northern) on the Reservation lately. These activities are focused on pipeline repairs (known as anomaly digs) as well as addressing pipeline exposures on the Reservation. Anomaly digs are the excavation of the pipeline for inspection and possible repair triggered by the results of the surveys completed by

tools sent through the pipelines. I'll be providing a fairly high-level run through of what they have going on currently and what they will be working on in the near future. The map I've included shows the approximate location of the upcoming projects; except for the bull horn installation which will take place all along Northern's pipeline corridor.

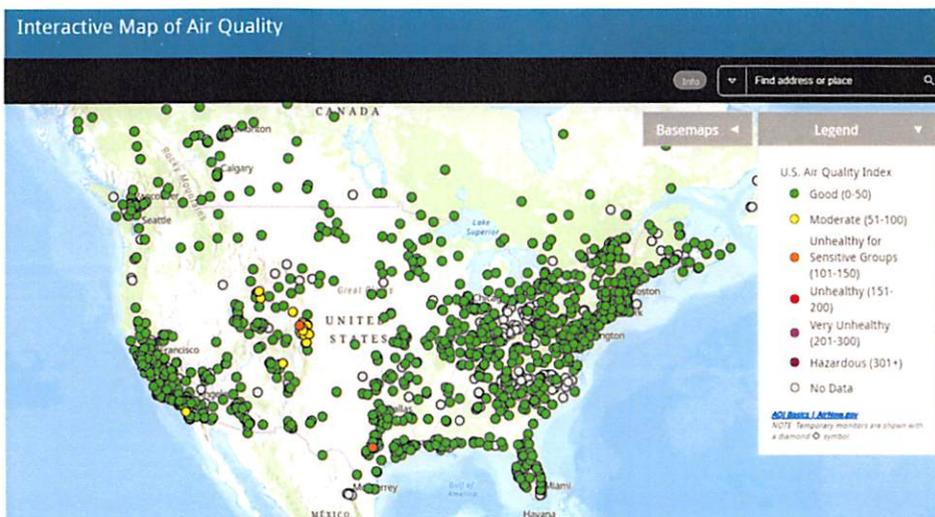
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Ground Level Ozone continued....

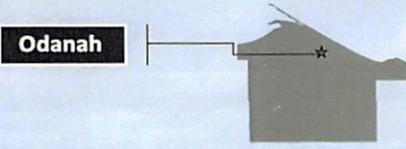
maintenance to ensure the T400 will run smoothly for another year.

Data from the T400 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 T400 for several reasons. First, to monitor human health levels, especially during stagnant weather events that allow ozone to build up. 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).



WINTER CLIMATE SUMMARY

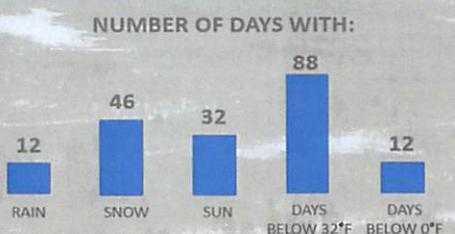


WARMEST 55°F February 27 **COLDEST** -21°F January 23

AVERAGE TEMP 19.1 F 3.3°F Above Average

TOTAL PRECIP 2.82" 1.64" Below Average **TOTAL SNOW** 39.8" 12.7" Below Average

MAXIMUM WIND GUST 36 MPH February 27



Northern Natural Gas Projects continued...

Active projects

Anomaly Digs 105 and FID 41990/41992 (off of Falls Rd.)

This project is taking place near Sugarbush creek and her surrounding wetlands and tributaries. Access to this site is from Falls Road. Dig 105, an immediate dig, has had a few delays due to the cold weather we had in February as well as a longer access route that is taking time to complete. Once work has been completed at site 105 they will begin working their way back out. As they work their way out, they will stop to complete work at site FID41990/41992. Work is expected to continue until late March. Periodic updates will be posted to MNRD webpage here: <https://www.badriver-nsn.gov/natural-resources/threats/>

Anomaly Dig 401 (Birch Hill Community)

This project occurred within the Birch Hill community, in Northern's pipeline corridor. While construction was active the pipeline corridor was closed between Clearcut Dr and Birch Hill Rd for the duration of the project. Inspection of the excavated pipeline resulted in a metal sleeve being added to the pipe for reinforcement. NNG will remove erosion controls once soil is stable with good plant coverage.

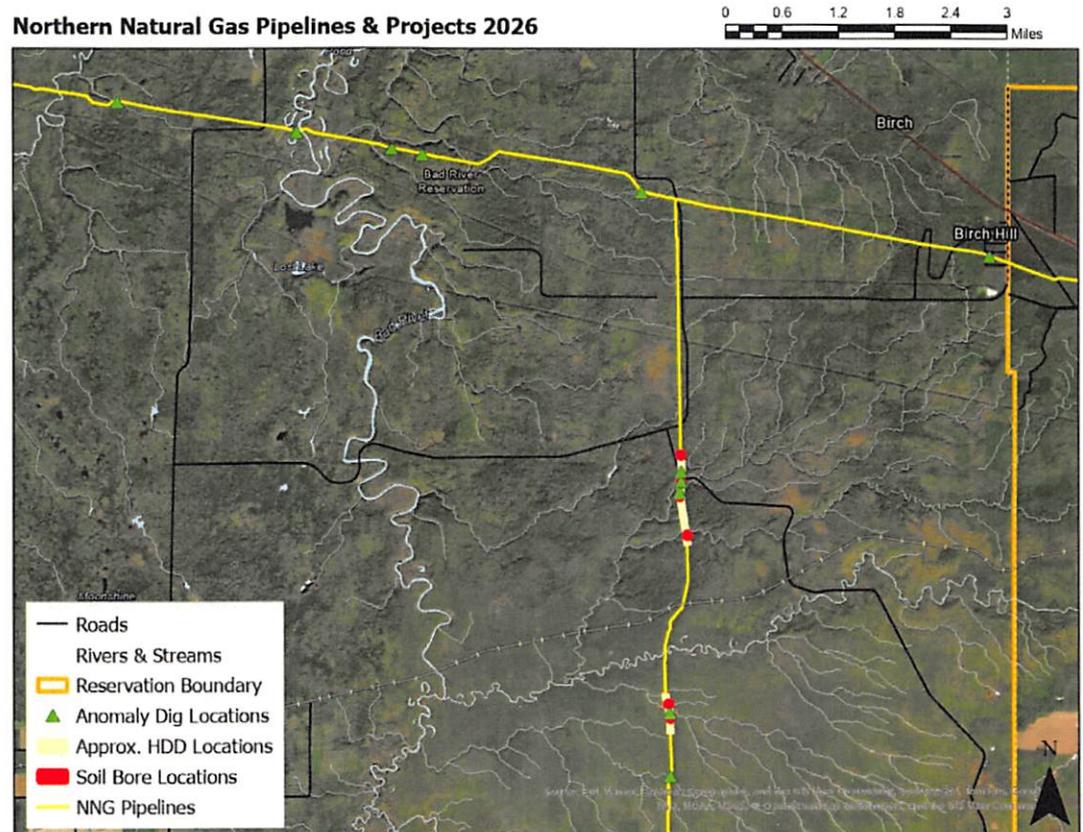
Anomaly Dig 106

This immediate dig near Pine Flats Road was mostly completed by Northern's contractors in February. However, stormwater inspections and restoration efforts will be ongoing into summer until the soil is stabilized with plant cover.

Upcoming Projects

Northern has completed the project review process to conduct brushing along their pipeline corridor. They plan on doing this work while there are frozen ground conditions. This project would take several weeks to complete. MNRD has reviewed the proposed installation of Bullhorn Moni-

Northern Natural Gas Pipelines & Projects 2026



tors. This project would be to install pipeline monitors at locations that lack adequate remote coverage along Northern's corridor. These would be monitoring for corrosion on the pipeline. They do not emit noise; they transmit readings from the pipeline to a computer. Once approvals have been issued and work has started it will take about a month to complete.

MRND is also reviewing a geotechnical investigation for Northern in the Potato River area. This project would gather information about soil and rock underground for another project NNG has proposed. Once approvals are issued and work on this project begins it is expected to take 12 weeks to complete.

The data from the geotechnical investigation will be used for a proposed horizontal directional drilling HDD project to install new sections of pipeline. This new pipeline is proposed to replace two sections of existing pipeline that have exposures. Once this project has all of the needed permits and is able to begin it is expected to take 20 weeks to be completed.

There are currently 5 additional projects under MNRD review for Northern to address anomalies within the Reservation boundaries. Some of these project reviews contain multiple dig locations due to them being located close together. They all have varying timelines with most taking several weeks to complete once permitted.

Piping Plover Wintering Grounds: Big Travels for Little Birds!

Jakob Wohlford, Ornithology Specialist - ornithology@badriver-nsn.gov

Each year, the small but resilient endangered Piping Plover leaves the shores of Lake Superior and heads south to winter along the Gulf and Atlantic coasts. While we focus on protecting nests during the breeding season, their journey doesn't stop there — and neither does conservation.

Why Winter Sightings Matter

Winter sightings are like postcards filled with critical data. Thanks to color bands placed on chicks and adults, we can identify individual birds wherever they travel. Each report helps researchers:

- Track migration routes and important stopover sites (including timing of migration)
- Measure annual survival rates of adults and young birds
- Understand which winter habitats birds rely on most
- Learn whether individuals return to the same wintering areas year after year (site fidelity)
- Identify threats on wintering grounds, such as disturbance or habitat loss

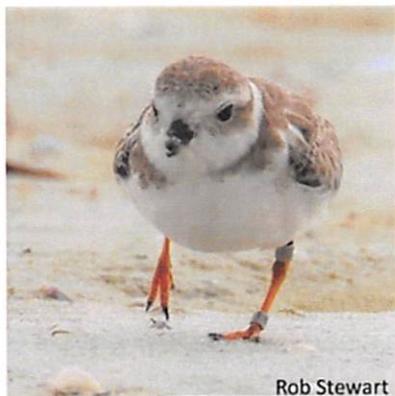
For a federally endangered population like the Great Lakes plovers, every bird matters so this information helps guide recovery efforts. Knowing where birds spend the winter helps prioritize habitat protection, informs partnerships with coastal managers, and ensures conservation plans cover the full life cycle not just the nesting season. Simply put, better winter data leads to stronger recovery strategies.

From the Great Lakes to Sunny Shores

This winter, six Chequamegon Point plovers — three adults and three chicks — have been spotted, from a migration stop in Gary, Indiana to Florida's coastal islands.

A highlight was the Bad River Mouth male, "Extra Large Guy," seen wintering at Cape San Blas, Florida. Even more exciting, two of our region's very first grey-banded chicks (a color exclusive to Bad River for this year) were recorded at Edisto Beach, South Carolina and Outback Key, Florida — the first grey bands from our region ever confirmed on wintering grounds!

Every sighting connects Lake Superior to southern beaches and reminds us that protecting Piping Plovers is a year-round effort. We can't wait to welcome them back this spring!



Rob Stewart



Rob Stewart

Photos captured by Rob Stewart of the grey band Piping Plover in Outback Key, Florida.

Equipment Inspections

Bridget Thornburg, Non-Local Beings Program Manager - nonlocalbeings@badriver-nsn.gov

When equipment is brought onto the Reservation and is intended to be used in areas beyond the main roads, an equipment inspection must be scheduled and completed with the Non-Local Beings Program. These equipment inspections prevent non-local beings from entering the Reservation because these inspections ensure that equipment does not have vegetation, soil, or other debris that may transport non-local beings on it. It is important to allow only clean equipment on the Reservation because construction sites or any earth disturbing work can create the ideal environment for non-local beings to spread. Non-local beings can thrive in conditions that stress native plants, and once non-local beings have established a population it is very difficult to remove them.

The Non-Local Beings Program aims to complete equipment inspections for:

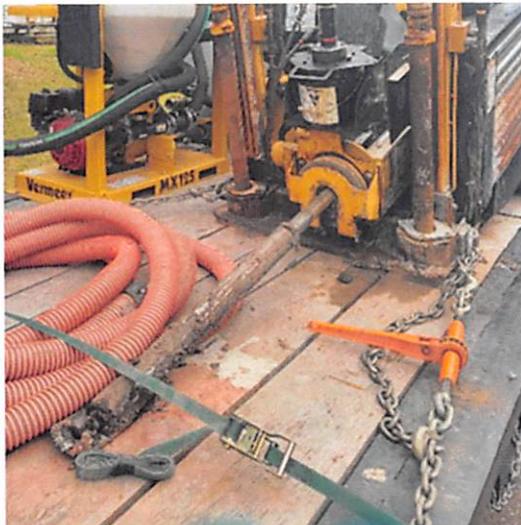
- Equipment transported onto the Reservation from off-Reservation
- Equipment transported from an area with a known non-local beings population
- Equipment that will be used in areas beyond the main roads of the Reservation

The type of equipment that we inspected includes ATVs, skid steers, well drilling equipment, kayaks, cranes, lifts, timber matting, and much more!

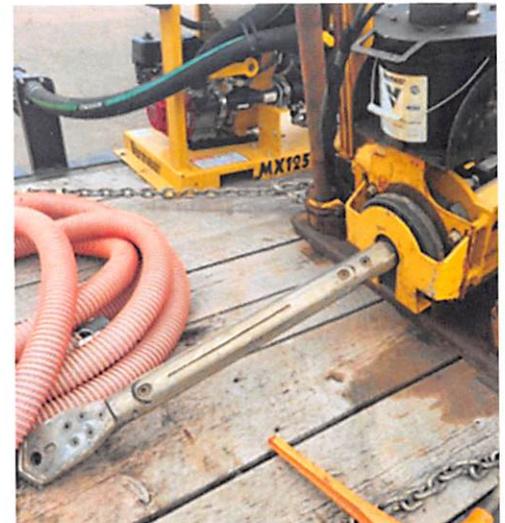
Equipment inspections are completed in the parking lot of the Bad River Casino, which is why you may see various trucks and construction equipment there from time to time. We examine each piece of

equipment for any vegetation, dirt, or debris, and thoroughly photograph it. Then we complete an inspection datasheet that records what the equipment is, what project it is for, what company is using the equipment, and other relevant details. If the equipment is determined to be clean and passes the inspection, it is then sent to the project site. If the equipment is found to be dirty and does not pass the inspection, then the contractor must take the equipment off-Reservation to be cleaned and bring it back for reinspection before they can go to the project site.

So far this year, the Non-Local Beings Program has completed 159 equipment inspections!



The photo on the left shows equipment that failed inspection, the photo on the right shows the same equipment during reinspection after it was taken off-Reservation and cleaned.



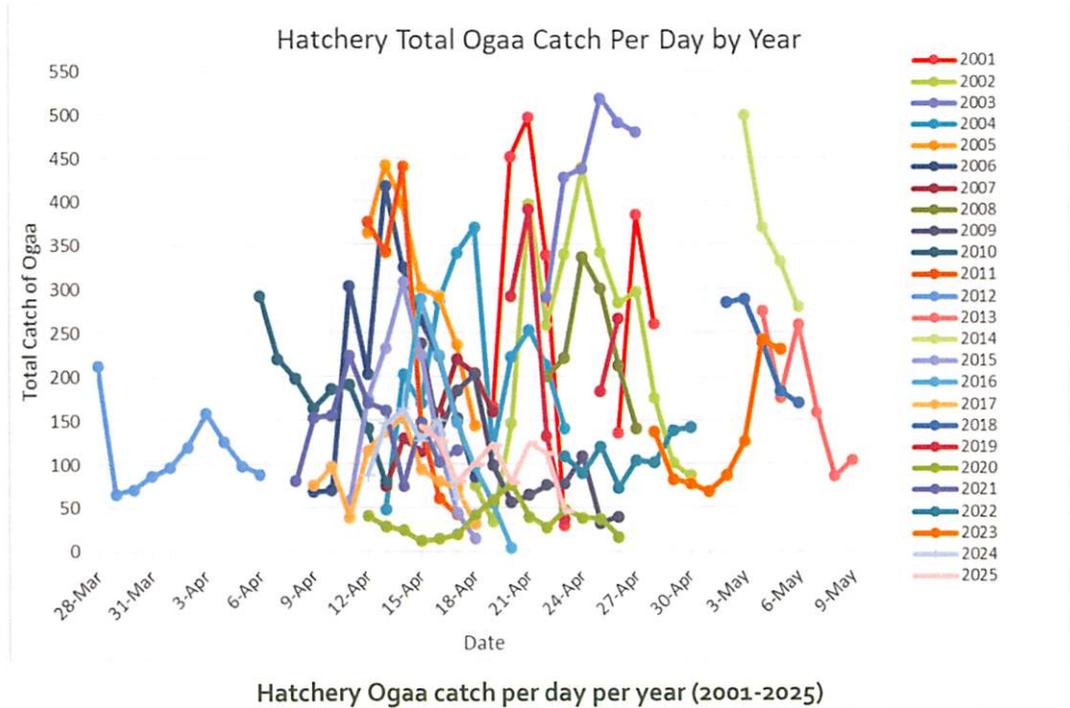
Stop the Spread of Invasive Species!

Fisheries Program Update

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

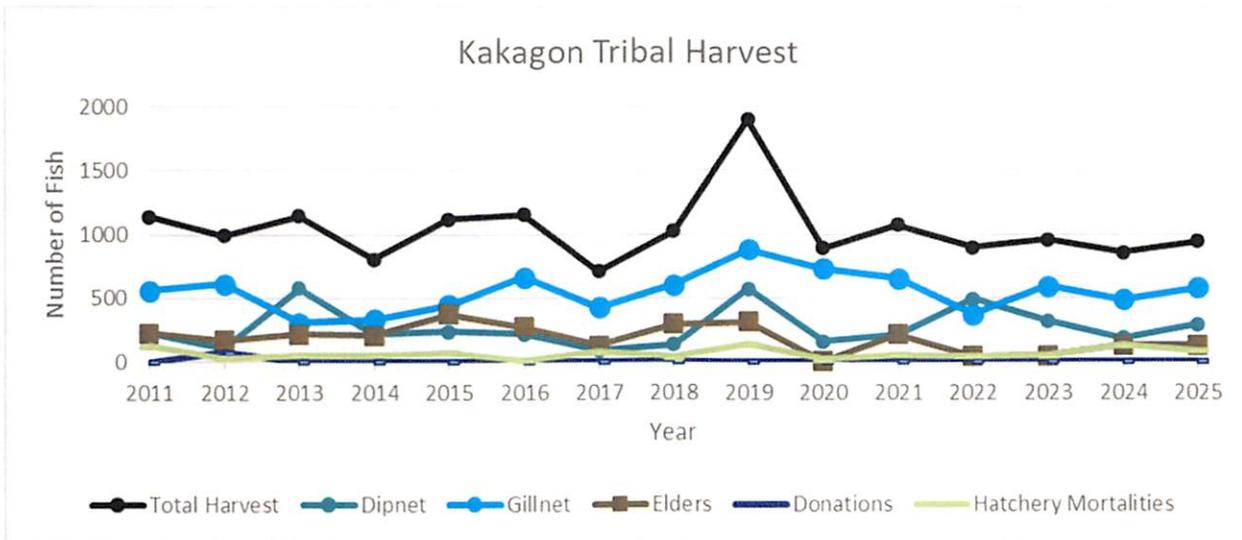
Spring is coming, along with Ogaa (Walleye) spawning season. The Fisheries Program has been monitoring the Ogaa spawning season on the Kakagon River for decades. The Kakagon is closed at this time to fishing except for hatchery or Fisheries projects. Total Allowable Catch (TAC) on the Kakagon is determined annually by the Bad River Fish Hatchery. The hatchery sets hoop nets in the river when the water temperature starts to approach Ogaa spawning temperatures. Ogaa spawn in water temperatures between 42 and 50 Fahrenheit. On average in the last 25 years the spawning window occurs between April 8-29 (Figure 1).

During this time the hatchery does two to four days of tagging and releasing of Ogaa. After approximately 300 fish are tagged and released the hatchery starts to hold fish for producing eggs and milt for production fish. Within a couple of days of holding fish for production dip netting is opened so the hatchery can trade males for females that are caught by tribal members. The hatchery catches more males than females, so trading allows us to hit our production numbers sooner. After the majority of female Ogaa are finished spawning we remove our hoop nets, derive the TAC for the year, and open the river for gill netting. This allows for fish that are not used for hatchery production the opportunity to spawn before being harvested. The average Total Allowable Catch (TAC) of the Kakagon over the last 20 years has been 1520 fish ranging from a low of 1200 to a high of 2700 (Figure 2). Spawning is very stressful for any fish species and so the hatchery sees mortalities from production fish. These fish do not go to waste and are provided to elders at the hatchery. Ogaa harvest by user group for the last

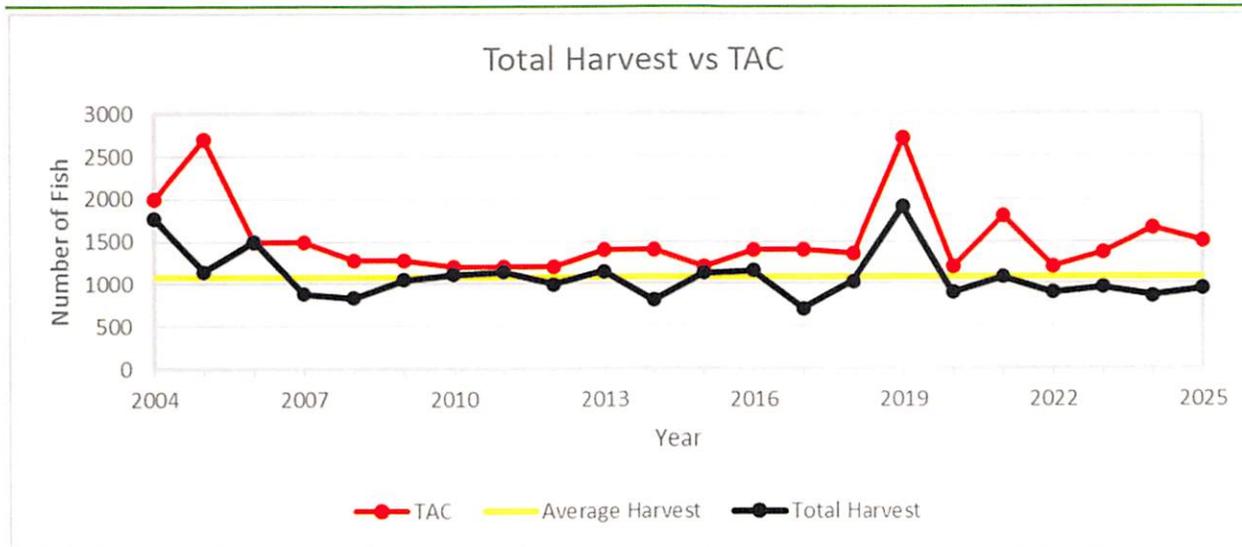


15 years are shown in Figure 3 and the numbers for the last 5 years are shown in Table 1. If you have any questions about Kakagon Ogaa spawning, population, or other general fisheries questions/concerns contact Jacob Rodmaker, Fisheries Specialist at fisheryspecialist@badriver-nsn.gov or 715-682-7123 ext. 1552.

Fisheries Continued...



Total Ogaa harvest by user group of the Kakagon river (2011-2025)



Total Harvest of Ogaa vs TAC of the Kakagon River per year (2004-2025)

Year	2021	2022	2023	2024	2025
TAC	1800	1200	1373	1665	1508
Total Harvest	1077	899	957	858	942
Dipnet	207	492	320	178	288
Gillnet	654	369	594	486	576
Elders	213	38	43	125	126
Donations	0	0	0	0	0
Hatchery Mortalities*	47	38	43	125	78

*Hatchery Mortalities are donated to Elders

Posted: Friday, March 13th, 2026

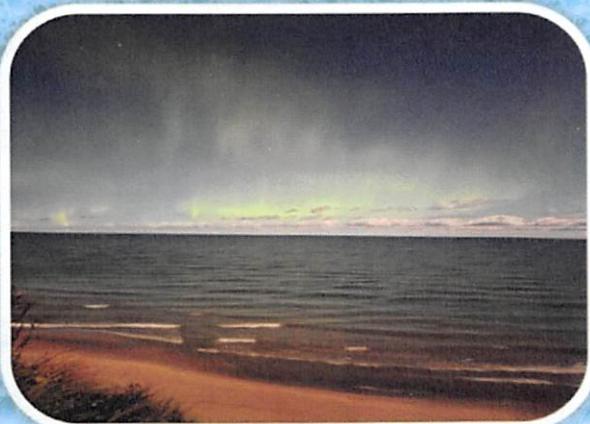
PUBLIC INPUT OPPORTUNITY **Beach Monitoring & Notification Plans for 2026**



The Mashkiiziibii Natural Resource Department (MNRD) is soliciting community input on the proposed 2026 beach monitoring plan and on the methods for notifying the public when bacteria levels exceed water quality criteria.

Comments will be accepted through: 4/13/26

Please submit comments to the Water Resources Technician/Lab Coordinator
watertech@badriver-nsn.gov
 Mashkiiziibii NRD, PO Box 39, Odanah, WI 54861



For more information on our Beach Monitoring Project, visit our website.

Monitoring Location	Tier	Monitoring Frequency
Bad River Mouth East	1	1x per week
Bad River Mouth West	1	1x per week
Madigan	1	1x per week (more if requested)
Second Landing	1	1x per week
Wauerly	1	2x per week
Amnicon Bay (Madeline Island)	2	1x per 2 weeks
Joe Rose Beach	3	1x per season (more if requested)
Morrison Creek Mouth	2	1x per season (more if requested)
Newago Creek Mouth	2	1x per season (more if requested)
Bell Creek Mouth	3	1x per season (more if requested)
Graueyard Creek Mouth	3	1x per season (more if requested)
Honest John	3	1x per season (more if requested)
Long Island East	3	1x per season (more if requested)
Sand Cut	3	1x per 3 weeks
Chequamegon Point North	2	2x per season (more if requested)

Beach Act Funds from the EPA support MNRD's efforts to monitor coastal beaches within the reservation.

Sign up for Nixle Alerts



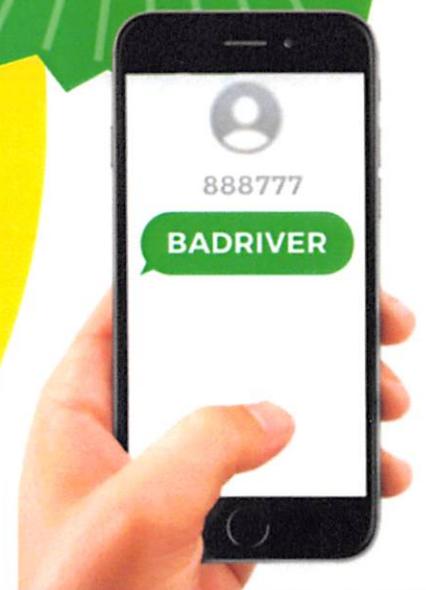
**TEXT 'BADRIVER'
TO '888777'**

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!**



Mashkiizibij Natural Resources Department



2026 Upcoming Events

APRIL 22nd

Earth Day
Celebration

JUNE

Beach Clean-Up

July 17th

Lake Superior Days
Celebration

SEPTEMBER

Beach Clean-Up
#2

Questions or Concerns contact MNRD Outreach Coordinator @ NRDOutreach@badriver1-nsn.gov
(715) 682-7123 ext. 1589

Posted: 02/05/26

Forestry Updates

Gena Abramson, Forestry Specialist - Forester@badriver-nsn.gov

Boozhoo. Mino-Ziigwan 2026! Forestry is excited about all of the work that we're doing to honor and support the Seventh Generation. Here are some of our current projects:

Urban Forestry Hazard Tree Removal Project as part of the greater Bad River Greenspace Improvement Project. This half million dollar project is funded by the Bureau of Indian Affairs as well as the Wisconsin Department of Natural Resources.

Birch Resilience, Utilization, and Management Study – designed to help us make decisions related to paper birch management and the potential of utilization by tribal members for commercial harvest. There is currently a moratorium on any birch pole cutting and this has been constant since 2016. This study is specifically mentioned in the moratorium issued by the Tribal Council.

Urban Forestry Training for Forestry employees who intend to manage urban forestry needs consistently throughout the Greenspace Improvement Project and on into the future.

Mechanized Planting Preparation – Also serves as brushing for tribal gathering access into the Bad River Forest. As seen above, skid steers were used on heavy snowpack and frozen ground to sever brushy species that otherwise make it impossible to get around in the woods.

We intend to plant pine and cedar throughout areas that we brush.

Miigwech for your support of Mash-kiiziibii Natural Resources Forestry. If you have any questions or would like to give your opinion on forestry needs, please don't hesitate to reach out. Forester@badriver-nsn.gov or 715-685-8929.

Gena Abramson and Tyrease James are here to serve the Bad River Communities and their 7th Generation.



Before and after photos of *brushing efforts* made this winter by our forestry technician, Tyrease James, along with assistance from the BIA development forester, Brett Stempa.

This area has been rich with Sawtooth blackberry, a very short ground species that produces a small blackberry. Mechanized brushing will allow tribal members to access the area to harvest medicines. Before the brushing, access was very difficult.



We were asked to remove a red maple that had fallen due to the wind storm a few weeks ago. Tyrease (TJ) bucked it up and put it back in the woods as soon as he heard that it needed to be done. Red maple buds provide excellent winter forage for deer. Falling trees are good for the ecosystem!!

Job Opportunities in MNRD

- Lease Specialist
- Brownfield Specialist
- Deputy Director of MNRD

- Fisheries Aide
- Fish Hatchery Crew Members (2)
- Watercraft Inspector



SCAN QR CODE to view Full Job Descriptions

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.



Mashkiiziibii Natural Resources Department

72682 Maple Street
PO Box 39
Odanah, WI, 54806

Phone: 715-685-7840 - 715-682-7123
Fax: 715-682-7118
Email: NRDOutreach@badriver-nsn.gov

~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.

*Were on the Web!
Visit www.badriver-nsn.gov*

