

COMMON GROUND

2019 Spring Edition

Enbridge Helicopter Crash Bioremediation UPDATE

By: MarKatie Mealy, Brownsfield Specialist

On October 29th, 2018 an Enbridge helicopter conducting an aerial inspection on the Line 5 pipeline crashed in a remote location on the reservation. The pilot of the helicopter did not survive, and the cause of the crash is still under investigation. The crash resulted in petroleum products such as jet fuel, engine oil, gear lubricant, hydraulic fluid, and engine coolant to be spilled onto the surrounding wetland ecosystem. Due to the remoteness of the crash, excavation and backfilling with clean soil was not an acceptable option. Instead, a bioremediation plan was chosen to promote microbial activity and naturally degrade the contamination in-place. Bioremediation has been studied extensively as an effective way to reduce contamination in soils. This is done by allowing the microbes to use the contaminants as a food source and convert them into less harmful or potentially harmless compounds such as carbon dioxide, water, and organic materi-



Figure 1: Construction crew breaking through the frost layer and tilling the soil

(Continued on page 4)

Grass Fire in Old Odanah Sparks Multi-Agency Response and Memories

Suzi Smith, GIS Specialist and Nathan Kilger, Air Quality Specialist

On Thursday June 6, 2019 Bad River Volunteer Fire Department, Ashland Fire Department, Bureau of Indian Affairs, Wisconsin Department of Natural Resources, Ashland



(Continued on page 2)

Special points of interest:

- *NRD Forestry Specialist*
- *NRD Fisheries Specialist*
- *Invasive Species Program Updates*
- *Earth Day Event Photos*
- *Grass Fire in Old Odanah*
- *PDWTS News & Updates*
- *Bad River Leasing*
- *RADON FUN RUN*

Inside this issue:

<i>Enbridge Helicopter Crash UPDATE</i>	1
<i>Grass Fire in Old Odanah Sparks Multi-Agency Response and Memories</i>	1-2
<i>NRD Forestry Specialist</i>	3
<i>Earth Day Event Photos</i>	3
<i>Invasive Species News</i>	5
<i>PDWTS Program Updates</i>	6
<i>Wabigoon Smoke Outlook for 2019</i>	7
<i>Bad River Leasing</i>	8
<i>NRD Fisheries Specialist</i>	8
<i>Pottery Reminders for River Permits</i>	9
<i>Ashland High School Students visit NRD for a day</i>	10
<i>Radon Fun Run & Lake Superior Duck Flyer</i>	12



Grass Fire in Old Odanah continued...

Suzi Smith, GIS Specialist & Nathan Kilger, Air Quality Specialist

County Sheriff's Department, Bad River Conservation Wardens, and Ashland Police Department all responded to a call for an agricultural burn that got out of hand in the old gardens behind Saint Mary's Catholic Church in Old Odanah. Bad River Food Sovereignty had planned to clear some of the dead grass and light brush on a small site within the garden, but lost control of the flames that consequently consumed much of the available fuel in the old farm fields that had been left fallow for many years.

The gardens are located on what used to be Sisters' Field that was cultivated when there was still a convent at the church, according to Edith Leso, Tribal Historic Preservation Officer, and recollections of tribal elders. Back in the early-mid 1900's, when much of the northern portion of the Bad River Indian Reservation was actively cultivated farm fields, large patches of open field were burned regularly by local farmers to clear them for the season. Before then, the same spot was used as a burial ground long before the treaty days and is likely still home to many ancient remains. A total of 4.2 US acres was burned on that Thursday. The area was mapped by walking with a Trimble high accuracy GPS unit, so there were burned portions part way in thick alder brush that were missed. It's estimated that 4.5-4.9-acres were burned in total.

Because of the history of the area and very soft ground, heavy equipment was not driven into or around the perimeter of the burned area to suppress the fire and Ashland Fire Department put out flames using an awesome water cannon launched from Old Odanah Rd. Fortunately, there were natural features of the swampy landscape and green alder thicket that acted as fire breaks around most of the perimeter. While this was not a large wildfire, the location of the fire, its fuel, and weather conditions were used to model how much smoke



Looking east towards Old Odanah. You can see the path of the burn.

Above image courtesy of Joe Bates



would be produced and where the smoke was going to move. When impacts to homes and roads are forecast, emergency personnel can respond if needed and take protective action by either closing a road or advising residents to stay inside with closed windows until the smoke dissipates. In this case, due to the small fire

Continued on page 11.

Bad River NRD Forestry Specialist

Boohoo! I'm Genia Abramson, the new Forestry Specialist for the Bad River Tribe. Big Sioux River in my home state of South Dakota. How wonderful it is to be working here in the Chief Blackbird Center with the rest of the Natural Resources staff. I feel very blessed to have the opportunity to serve the people of the Bad River community. Working with the community and helping them be involved in the forest is one of my top priorities. I will also be working on improving the forest for the long term as well as collaborating with others all through quality forest management.

In 2016 I began working for the Wisconsin Department of Natural Resources just before graduating from Gogebic Community College's Forestry program with an Associate's degree. In January of 2018 I enrolled in Northland College's Natural Resource Program and obtained (just last month) a Bachelor of Science degree with emphasis on Forestry as well as Ecological Restoration. Weekends and breaks were spent working for the WDNR doing inventory and timber sale establishment.

Having taken Native American Studies throughout my time at Northland College I quickly grew in knowledge, but more importantly, I became passionate for the people of our First Nation. It quickly became my goal to dedicate the rest of my

working years serving the Indigenous Community and I'm so thrilled to be here now. It seems too good to be true. I have set a goal of

learning one word per day of Anishinaubeshwin. Please feel free to suggest a word or phrase that has special meaning to you.

I'm eager to get to know the community and how I can help each member become more involved in the forest.



IN MY SPARE TIME I ENJOY RUNNING, SNOWBOARDING, FISHING, GATHERING BERRIES, AND EXPLORING THE WOODS

Bad River's Earth Day Event

On May 15th, 2019 we held our annual Earth Day Event from 1 p.m. to 6 p.m. sponsored by our own Tribal Programs and Departments. We covered all the main areas of the reservation, Birch Hill, Franks Field, Aspen Estates, Madigan & Lake Roads, Old Odanah, and New Odanah. This year we had 124 participants register and we collected enough trash to fill a 15ft garbage dumpster! Great Job Everyone! This year



Continued on page 11

Enbridge Helicopter Crash Site Updates continued...

ats.

From February to March of 2019 Enbridge's contractors and construction crew began remediation work on the site. First, the crew broke through the frost layer in the soil, removing soil to a depth of 12 inches or more and collecting debris from the helicopter to be disposed of (figure 1). Tilling the soil increases oxygen that will promote microbial growth. Then, woodchips that act as a bulking agent and fertilizer that ensures microbes are not limited in nutrients were mixed into the loose soil (figure 2). Finally, a groundwater interception trench was dug so that the contaminated groundwater meets oxygen which increases microbial abundance so that they are better able to breakdown petroleum products (figure 3). Throughout the remediation work soil samples were collected and tested for the quantity of petroleum products present using an instrument that measures gases that the products give off. The data collected was used to determine the depth that the soil needed to be tilled and the site boundaries.

After the first round of remediation was completed, the site was covered in large sheets of plastic that help insulate the soil and reduce water influx that would make the contamination more mobile. Additionally, groundwater monitoring wells were installed down gradient of the crash site and silt fencing was implemented to reduce runoff. At a minimum Enbridge's contractors have done weekly site inspections to ensure all equipment is still in place and installed correctly as well as to document site changes over time. The monitoring wells are sampled monthly for evidence that contamination is persisting/moving through the environment. Bad River NRD staff have been present both during



Figure 2: Fertilizer and wood chips were added to the tilled soil to promote microbial health and activity



Figure 3: Groundwater interception trench greater than 14 inches deep.

remediation work and for every site visit to confirm that the remediation is going according to plan. This spring will mark the start of the second round of remediation which will repeat the process described above. Overall the site is expected to be fully remediated within one year, but the plan may be adjusted if the results of testing show that contamination is persisting.

For more information please contact the Brownfield Specialist:

Markatie Mealy
Brownfield Specialist
Bad River Band of Lake Superior Tribe of Chippewa Indians
Office: (715)-685-7840 ext. 1587
Cell: (715)-685-4440
brownfields@badriver-nsn.gov

Invasive Species News

Darrell Burns, Invasive Species Coordinator

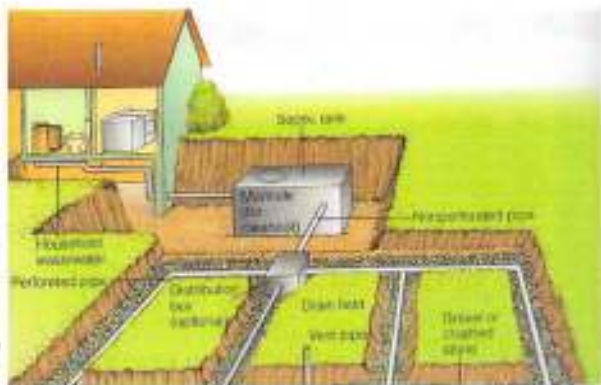
Woff another field season is upon us! And the Invasive Species Crew has been hard at work doing various tasks since May 28th. The crew has many new faces on board, but they already showed how eager they are to learn about the many different invasives and jobs that we will be doing throughout the field season. This year we have two (2) leads Greg Smart & Jon Connors and the crew consist of Geronimo Willis, Cass Corbitt, Chris Arbuckle, Noah Arbuckle, Matt Stone, Tim Couture. So far in the couple of weeks that the crew has been on they had training with clean boats, clean waters and Aquatic Invasive species ID training with Wisconsin DNR. Also, we had right-of-way invasive species training with the Northwoods Cooperative Weed Management. The first thing the crew did was help clean up Stones Road that had a lot of garbage down the road. The crew also helped set-up bear stures as part of a partner project with Wisconsin DNR. The stures are used to take samples of hair off the bears which we collect, and the DNA is analyzed to check out the health of the bear populations.

Later this month the crew will be collecting Galenicella beetles for use on the purple loosestrife with help of GLIFWC. The Invasive crew along with GLIFWC continued the treatment of wild parsnip in the Old Olandi area. Wild Parsnip in this area is our main concern due to how hazardous it is toward people and animals. The biggest spot on the river is around the back side of the pow-wow grounds and all along the roads near there and the church. If your around these areas please be careful and make sure your animals stay clear of the ditch.



POWTS Program Updates

Eugene Bigboy Jr. - POWTS Program Inspector



The POWTS (Private On-site Wastewater Treatment Systems) is beginning summer work after a very wet spring. The ground is still wet/saturated and very soft but we will get what work completed that we can. We have five (5) sites that are ready for construction, and fourteen (14) more applicants in various stages of completion. For tribal members who have begun the POWTS application process, keep it up, this is a process that is time consuming and very dependent on the applicant, to ensure steady progress. We will have a table set up at this year's Health Fair with informational hand-outs, brochures, applications, maps, and drawings available. Stop by our table with any questions you may have, or to check on the progress of your application. This year's health fair is June 26th so see you all there.

Remember that the IHS funding for tribal members is a onetime opportunity. Once you have received funding for a well/mound system you are not eligible again. Due to funding restrictions, IHS has had to make other modifi-

cations/changes to some of its funding criteria. Most tribes will now only assist their tribal members living on their home reservation and within their service area. IHS has a one year "grace" period from the time final inspection is completed, that they will provide repairs/replacements for their work at any of the Bad River tribal sites. After that time frame is expired it is the homeowner's responsibility for all repairs. IHS does not have the funding to provide emergency repairs/replacements or to pump out holding tanks. Holding tanks should be checked annually and usually require pumping out every 2-3 year. Your mound care is also important, mounds can be mowed and should be. Keeping your mound cut will prevent brush and other large weeds and debris from damaging the displacement piping that makes up your mound. Cars, trucks and other large, heavy vehicles, and equipment should not be on your mound. Disposable diapers,

napkins, and cooking grease/oils should not be thrown into the drain/toilet, these are the main culprits that will cause a blockage and build-up. Pumping out your tank can cost from \$100-\$200 per pumping. Our office hours are 8:00am to 4:30 pm M-F. My e-mail address is powts@badriver-nsn.gov We are located in the BRDNR, Chief Blackbird Center.

See you all at the Health Fair, and have a wonderful summer!

Gene "Squeak" Bigboy
POWTS Program Inspector

Hatchery Production 2019

Jacob Rodmaker, Fisheries Specialist

This year during the spring-spawning of Walleye, the Bad River Hatchery crew collected 197.5 quarts of eggs. 197.5 quarts of eggs is the same as 28.1 million eggs. We had a 45% hatch rate this year which is typical for an average year. This year 782,532 fry were stocked into Potato River and 1,422,785 fry were stocked into both the Bad and Kakagon Rivers on May 16th. On May 17th 640,253 fry were stocked in the Bad River and



7,469,620 fry in the Kakagon River. Currently there are 853,670 fingerling Walleye in the five rearing ponds. 40% of these fish are to be stocked in the Kakagon River and 60% are to be stocked between the Bad and Potato Rivers. They are to be stocked before July 12th.

Wildfire Smoke Outlook for 2019

Nathan Kilger, Air Quality Specialist

We smelled smoke from the Pagami Creek Fire in northern Minnesota in September 2011, wildfire smoke from Albert Province in Canada moved across the Bad River Reservation in 2015, smoke from the western United States moved all the way across the continent to the Atlantic Ocean in 2017, and nearby prescribed burning conducted in the Moquah Barrons of Bayfield County made the air smell like campfire smoke on May 29th this year.

The current report from Canada is that there are 87 wildfires burning in seven provinces and two territories this week and 4,415 people have been evacuated from their homes near these fires. Smoke from the Canadian fires did move across our area the last week of May and the first week of June but these fires have been producing much less smoke since then. Besides a haze in the air for several days, the air monitoring equipment in Odenah did not measure any unusual pollution levels.

The current report from the United States fire agencies highlight dry and hot conditions in New Mexico, Arizona, and California, in addition to coastal portions of Washington and Oregon. These hot and dry conditions are forecast to continue in these areas. So far smoke from these fires has stayed close to the fires and has not moved across the country yet.

The forecast this summer and fall highlight the chances of significant fire danger throughout California and the coast of Washington and Oregon.

Air Quality Specialists across the country, including the Air Office here at the Bad River Band's Natural Resource Department, have a variety of tools to forecast and track smoke as it moves across vast distances, watch monitoring data both close to the wildfires and from the monitoring equipment operating in Odenah, and alert the communities and public when smoke will be moving through our area.

Wildfires already burning in several western states point to an early fire season in some locations. If the fire danger is as high as some forecasts show, we could see opportunities throughout the summer and fall seasons for smoke to occasionally impact our communities here.

In addition, there are a few more prescribed fires planned for July in the Moquah Barrons in Bayfield County. While the fire

Pagami Creek Fire Sep 11, 2011



management team for the U.S. Forest Service plan their prescribed burning with public safety and smoke management in mind, we could see some light smoke impacts from these prescribed fires if the wind direction is just right. Dependent on environmental conditions, a prescribed fire may be conducted in the fall of 2019 or the spring 2020 in the Graveyard Creek area by the Bureau of Indian Affairs and the Bad River Natural Resource Department. More information on this event will be posted to the community before the prescribed fire.

In the meantime, the Bad River will continue to monitor the wildfire season and I will post any important information to the website and send out emails if we expect a period of smoke here across the Reservation. Also be sure to check out the flyer in this newsletter from the Conservation Wardens concerning the Bad River Burning Ordinance for information on how to obtain a burning permit, safety requirements, and fire danger information to keep our own communities safe from wildfires.



Bad River Leasing

Bad River Leasing
 Chief Blackbird Center
 P.O. Box 39
 Odanah, WI 54861

715-682-7111 x 1588
lease@badriver-nsn.gov
 Patti J. BigBoy

Introducing NRD's New Fisheries Specialist



school I learned that I could make a career out of working outside and protecting the creatures' populations that I enjoyed so much.

Hello, all!
 I recently joined the Natural and Resource Department as the new Fisheries Specialist. I am excited to have the opportunity to be a part of this team and help improve my area of study.

I'm originally from a rural community outside of Marion Indiana. I grew up deer, turkey, squirrel, and rabbit hunting in the springs and fall. During the summers I always enjoyed fishing farm ponds and the reservoirs for Largemouth Bass, Black Crappie, sunfish, and catfish. In high

I graduated from Northland College in 2018 with a B.S. in Natural Resources with an emphasis in Fisheries and Wildlife Ecology. During my time at Northland I learned that I appreciated working with fish more than wildlife. For the last year I have been working as the E.T. for the Les Voigt Fish hatchery in Bayfield where I gained a lot of knowledge about fish propagation.

Even though I work with fish for a living, in my free time I still enjoy fishing. When I'm not fishing, I enjoy hunting, mechanics, kayaking, spending time with my dog hiking or swimming. I cannot wait to learn about the culture here and help protect such an awesome fishery and maybe even make it better.





Points to remember for Burn Permits

Contact Natural Resources before any burning !!

Natural Resources will advise on the current fire danger, if there is a burning ban, and will confirm the location where the burning will take place. Natural Resources can be reached at 682 - 7123 during normal business hours. More information can be found at <http://x.co/BRburn>. Dial 911 in an emergency.

Burning is not allowed:

- Not on Sundays
- Not on Holidays
- Not when a burning ban has been issued
- Not before 6:00 pm
- Not when fire danger is Very High or Extreme

Please use common sense on days with strong winds!



Burn Barrels and Open Burning are prohibited during Very High Fire Danger. The only exception are attended warming fires.



All fires are prohibited during Extreme Fire Danger!

What are the guidelines to follow ?

- With a signed permit from the Natural Resource Department
- Only when Smokey says Low, Moderate, or High fire danger.
- 6:00 pm until Midnight
- In piles no larger than 5 feet by 5 feet by 5 feet

What can not be burned ?

- No burning of uncut grass, uncut vegetation, or uncut brush
- No recyclable materials or any kind of plastic
- No construction or demolition materials
- No household garbage or kitchen waste
- No chemically treated, painted, or creosote-coated wood
- No roofing materials or tires

Responsibility and Liability

Responsibility falls upon the owner of the land which a burn is conducted, or the owner of the burn barrel, as well as any individual (with or without a permit) to ensure that his/her fire is contained and does not pose a threat. These parties shall be liable for any injury or property damaged by the act of burning or failure to take adequate precautions.

Enforcement

Wardens, the Fire Department, and Bad River Police are authorized to issue fines and citations if any fire does not meet the ordinance guidelines. Penalties may include fines up to \$1000, and restitution for damages caused by violations.



Special points to remember:

- Burn Barrels must be covered with a screen to hold down flying ash
- All fires must be continually observed by a responsible person
- Persons with unattended burn barrels will be considered in violation of the ordinance
- All fires must be completely extinguished before the last person leaves
- Burn Barrels must have a minimum of 10 feet clearance and be located at least 25 feet from buildings
- No open fires within 50 feet of buildings, fences, property lines, and right-of-ways

Ashland High School Students Visit NRD for a Day

Florence Powless, NRD Administrative Assistant

In Spring 2019 a handful of science students visited the Bad River Natural Resources Department for a day. This was the 3rd year that students spent the day bonding while participating in activities that were new to most of the group. During their visit the students were introduced to the invasive species threatening Wisconsin, textured soil properties and behaviors, learned about the historical importance of treaty rights, and spent the afternoon touring the Fish Hatchery along the banks of the Kakagon Sloughs. Towards the end of the field day, the students relaxed at the Fish Ponds and we had the students discuss their favorite parts of the trip.



Indigenous Arts & Science

This field trip is one of the many events NRD & Bad River Education Department collaborate on as part of our IAS program. Our IAS program works with UW Madison Earth Partnership and other tribes & partners to engage youth, educators, and families in cultural, science, math, and art activities. Miigwech to our funders, National Science Foundation & NOAA through their BWET program.



Wild Fire continued...

and good conditions for smoke to disperse, no further actions were needed in response to the smoke. As a reminder, the Bad River Burning Ordinance requires a valid permit to be held by anyone planning to burn on the Bad River Reservation. A ceremonial fire, warming fire, or cooking fire are exempt from needing a permit, but the purpose of the ordinance is to keep the Bad River community safe from fire. Permits can be obtained from the Bad River Natural Resource Department.



Earth Day continued...

we also incorporated activities for the younger children to participate in such as a T-shirt making table, and a DIY craft table where they could make an Earth Day Picture or Mother's Day Picture. We're proud to announce that each participant was able to win a prize this year and no child was left out! Chi Mligwetch to all that helped make this event possible!



-NRD Outreach Coordinator, Berthea Olby



Reminder!

2019 Radon Fun-Run

"Bring awareness to those 23,000 lung cancer deaths that are related to radon-induced lung cancer each year."



When:

June 26, 2019
10AM-2:30PM

(Registration will be open from 10AM-9PM)

Where:

2019 Bad River Health Fair
Nokomis Road, Odanah, WI

(Near the Bad River Casino)



Benefits:

Tribe Indoor Radon Program & the
Bad River Health & Wellness Center

Radon Prizes - Radon Promotional Gifts -

Free Radon Testing Sign-up - Snacks - Water

For More Information contact David Wiggins @ 715-682-7123



SAVE THE DATE!



~Friday, July 19, 2019~

Locations: Joe Rose Residence Lake Rit, Odanah, WI

Dates: Friday, July 19, 2019

Times: 11am - 3pm

(Subject to change based on weather)

2019 Lake Superior Days Celebration

- Natural Resources Department Informational Booths & Fun Gitchigami (Lake Superior) Activities.
- Lake Superior Organizations Educational Booths & Activities.
- PLUS Lunch will be served on the shore of Gitchigami (Lake Superior)



Bad River Natural Resource Department

72682 Maple Street
PO Box 39
Odanah, WI, 54806

Phone: 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