

Treaty Natural Resource Division

Red Cliff Band of Lake Superior Chippewa



Ganawenjigaade

It is taken care of, protected...We take care of, protect, keep it



Volume 3, Issue 2

Summer 2014



*Makwa enjoying the view from a zhingwaak (white pine) near the
Division's offices earlier this summer*

Special points of interest:

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Employee of the Month

An office is only as good as its staff. And we hear at the Treaty Natural Resource Division we have some of the best. The following team members were nominated for Employee of the Month in the last three months by their fellow co-workers. By: Chad Abel

April Employee of the Month – Linda Nguyen, Water Resource Manager



Linda has been at the center of the positive changes that have occurred in the Water Resource Program the last couple of years. Thanks to her dedication, water sampling on Red Cliff lands has tripled under her management, and Red Cliff is now in the process of achieving authority for water quality standards. The Environmental Department is also doing a restoration project this summer to the settling ponds at Legendary Waters, thanks to a grant proposal that Linda wrote. Thanks Linda for all of your hard work!

May Employee of the Month – Trevor Wilk, Natural Resource Specialist



Trevor was hired in the climate change program in January of this year and has made an immediate impact in the Division. He restarted the Climate Change Committee and applied for further climate change funding shortly after he was hired. Trevor has also provided a lot of extra support for other projects that have come up in our office, always willing to put on his boots and gloves when there is a job to get done. His work on the thinning project at the new clinic site in particular was extremely helpful. Trevor has quickly become an indispensable member of our team!

June Employee of the Month – William “Bim” Gordon, Transfer Station



Working at the Transfer Station day in and day out can be a thankless job at times. With the nomination of Bim as Employee of the Month in June, the staff would like to recognize Bim for his years of service. His contributions stand out especially during the annual spring clean-up each year. Many thanks and gratitude, Bim! Keep up the good work.

RED CLIFF TREATY NATURAL RESOURCES DIVISION

OPEN HOUSE EVENT

**Wednesday, August 13th
5:00– 7:00 PM**

Everyone is Welcome!

**Stop by and visit with our departmental
programs**

**“Fry Master” Joe Duffy will be cooking up
fresh Lake Superior Whitefish.**

**Located at the Red Cliff Tribal
Fish Hatchery**

Red Cliff Spring Clean Up 2014

was a success thanks to all who assisted!!

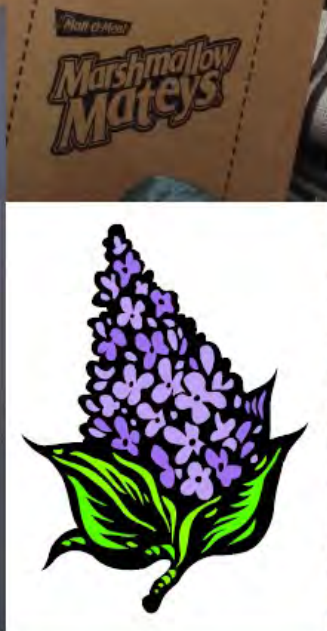
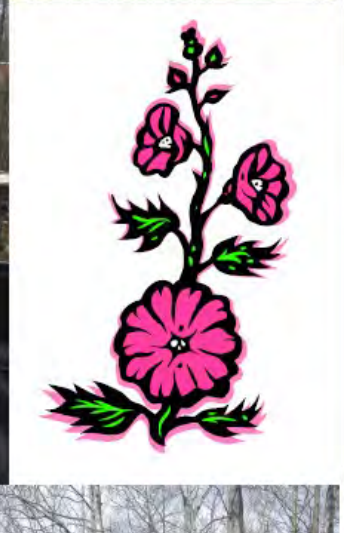
During the week of April 18th–24th, 2014 the Environmental Department organized and carried out our Annual Tribal Spring Clean Up which was a great success to all those who assisted us!! Special thank you goes to those volunteers who carried out road side efforts prior to our actual clean up week, in recognition of the years of efforts by the late Joseph Peacock Sr. Also thank you goes to those who assisted us during our actual week which includes: Transfer Station staff & volunteers, Environmental Staff, Tribal Facilities Staff, Tribal Housing Maintenance Staff, Conservation Wardens, and most importantly our daily, hard working volunteer, Aron Basina Jr.

Thank you also goes to those who assisted indirectly or behind the scenes such as our Tribal accounting staff, Tribal Council members, Treaty Natural Resource Division, additional housing staff, and more. We fully appreciate the cook out held on Friday of the clean up and all the effort put into making it happen. We couldn't have possibly carried out our successful efforts without you all!! Thank you to the community who participated by cleaning up and taking pride in their homes and surroundings.



Lastly, thanks to all, we carried out 11 dumpsters of waste from the transfer station, 12 bags of debris from the New Housing wooded area adjacent to the park, and large amounts of additional debris out of areas such as Sand Pit, Emil Road, Old Dump Site, Pagant Road, Bishop Road, and many other areas.





Sea Lamprey Control: Red Cliff Creek

Written by: *Michael Defoe*

It is the Sea Lamprey (*Petromyzon marinus*) spawning time of year in Gitchi Gumi, or Lake Superior. The Red Cliff Treaty Natural Resources Division, fisheries staff have been monitoring in Red Cliff Creek to capture spawning sea lamprey upstream. A fyke net is used to capture sea lamprey as they migrate from the lake to spawning grounds (Image 1). From 2006-2014 a total of 160 sea lamprey have been captured in Red Cliff Creek. The past two years have yielded zero sea lamprey captures.



Year	Sea Lamprey Captured
2014	0
2013	0
2012	7
2011	34
2010	29
2009	63
2008	4
2007	6
2006	17
Total	160

Image 1: A Blue Heron wandering around the fyke net set to capture Sea Lamprey.

A Sea Lamprey is generally between 12—20 inches long and eel-like (Image 2). They are members of an ancient family of “jawless fishes” that were around before the time of the dinosaurs. Their mouths are circular with circular rows of teeth as seen in Image 3. Sea lampreys are an invasive species and they feed on native fish populations, such as lake trout and whitefish. An adult sea lamprey can consume approximately 40 lbs of fish in its lifetime.

Considering an adult female sea lamprey can lay approximately 10,000 eggs and the average adult can consume 40 pounds of fish. A single female sea lamprey can lay enough eggs to consume 400,000 pounds of fish.



Image 2: Sea Lamprey captured. A length, weight, and sexual orientation are collected.

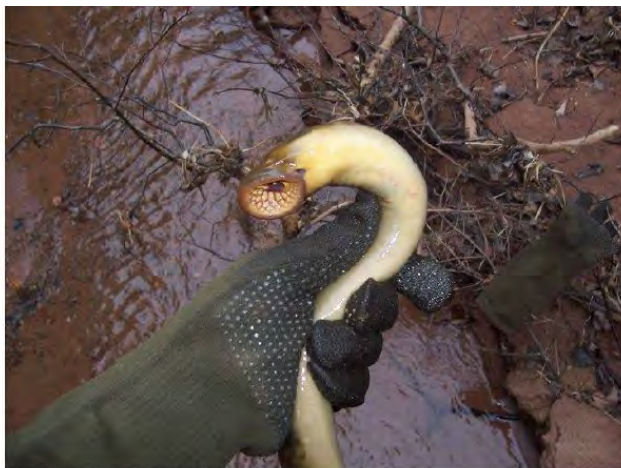


Image 3: A Sea Lamprey is easily identifiable.

ICEBERGS AND BOAT REPAIRS

By Bryan Bainbridge, RCNRD Fisheries Lead

Due to a chi-gisinaa biboon(extremely cold winter) and back order of parts for our research vessel our Fisheries Management Team will be get a late start on our scheduled Ziigwan Namegos(Spring Lake Trout) and Near Shore electro fishing assessments. As the steel hulled commercial fishing tugs battled the sometimes debilitating ice conditions along with unusually late giant icebergs our thin aluminum hulled research vessels would never stand a chance this Ziigwan(spring) out on Gichigami (Lake Superior).



Although we had to wait for parts and most of the ice to leave we will be back on schedule with all of our other routine and newly developed assessments and monitoring projects. Our vessel will be in Gichigami the first part of Ode'imini giizis(June) and our crew will be busy all season long making sure we do our part in monitoring and protecting one of our most cherished natural resources and life blood Gichigami.

NIIBIN - IT IS SUMMER



Maniwiigwaase – she/he gathers birch bark

Makak - a basket

Bagwaji zhigaagawanzh – wild leek



Aabita niibino giizis-July

Miini giizis-August

Manoominike giizis-September



Gizhaate - it is hot outside

Giizhoote - it is warm inside

BAGIZO - SHE/HE GOES SWIMMING

BADAKIDOO - PLANT IT / PLANT SOMETHING



Aniibiishan - leafs

Ojibikan - roots

Shiizhinsan - stems

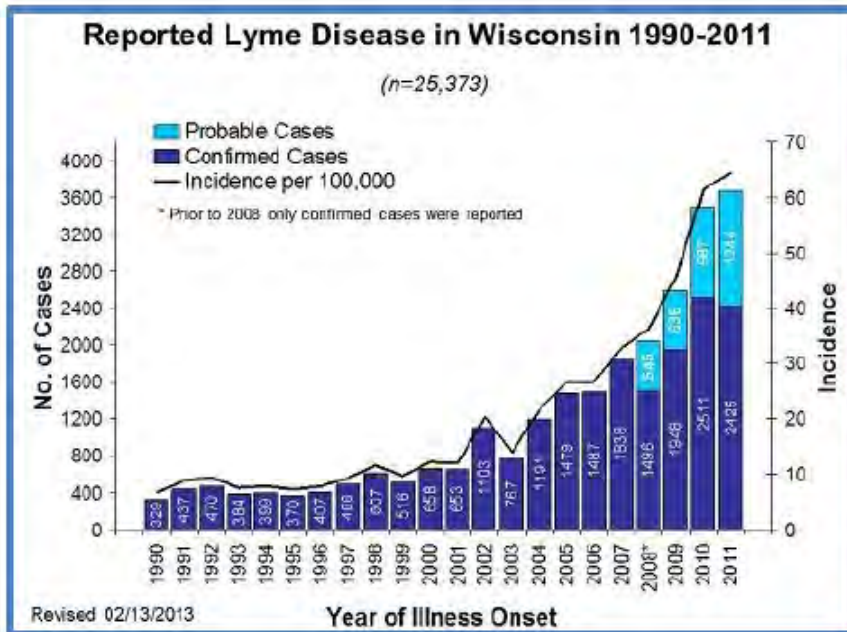
MASHIKI - MEDICINE



Climate Change Impacts: Ticks and Lyme Disease

The impacts of climate change are vast and many: rising seas, changing forests, stronger storms, and longer droughts. The list is truly endless. Climate change has, is and will affect all of our lives. Climate change is going to bring with it a deviation from the norm. What we saw and experienced in years past isn't going to be what we see and experience in the future.

Reported Lyme disease cases in Wisconsin have steadily risen since 1990. This is a growing public health concern as Lyme disease is the most prevalent vector-borne disease in the United States with over 100,000 cases reported since 1982. Why the sudden and drastic increase in reported cases? Have we simply become more aware of Lyme disease and thus reported more cases than we used to? Or might climate change be a factor?



Because climate has a well-documented role in the maintenance of vectors and pathogens in nature, some studies have predicted that the present warming phase of the Earth will result in the redistribution of many vector-borne diseases ([Reeves, Hardy et al. 1994](#); [Patz, Epstein et al. 1996](#)).

Climate change and the increase in average temperature it brings with it will have the following effects on deer ticks: An acceleration of the tick's developmental cycle, an extension of the tick's developmental cycle, an increase in egg production, an increase in population density and a shift in risk areas.

A recent Yale University study has an interesting perspective on the link between Lyme disease and climate change. Deer ticks live for two years and have three stages of life – larval, nymphal and adult and must feed on blood during each stage. If the source of the first meal (a mouse, bird or other small animal) is infected with the bacterium that causes Lyme Disease, the tick also becomes infected and passes it on to its next meal source – be it wildlife or human – in its second life stage as a nymph.

It's the seasonal cycle, which is heavily influenced by climate, of feeding for each stage of the tick's life that determines the severity of infection in a given region. In the moderate climate of the Northeastern United States, larval deer ticks feed in the late summer, long after the spring feeding of infected nymphs. This long gap between feeding times directly correlates to more cases of Lyme disease reported in the Northeast. When there is a longer gap, the most persistent infections are more likely to survive. These persistent bacterial strains cause more severe disease in humans, leading more people to seek medical attention and resulting in more case reports.

But in the Midwest, where there are greater extremes of temperature, there is a shorter window of opportunity for tick feeding, and therefore a shorter gap between nymphal and larval feedings. Because of this, Midwestern wildlife and ticks are infected with less persistent strains, which correlates with fewer cases of Lyme disease reported in the Midwest.

The distinct repercussion of this study is that, as the planet warms, the Upper Midwest could find itself in the same situation as the Northeast: longer gaps between nymphal and larval feeding, and therefore, stronger, more persistent strains of Lyme Disease.

This Yale study offers us an interesting, plausible perspective on why Lyme disease is becoming a more prevalent vector-borne disease. Whether or not climate is the reason Lyme disease is increasing isn't really the point after all though. The point is that it is increasing. And therefore we need to continue educating ourselves about the risks and repercussions of living in an area with Deer ticks that carry Lyme disease.

Deer Tick Season

Tick season is here! Recent warm weather has brought ticks, including deer ticks, out of their winter dormant state. This means extra precautions when entering tick infested areas, especially for children.

Lyme Disease Prevention



- Avoid Tick Infested Areas
 - Deer Ticks
 - Pictured Above
- Use Insect Repellent
 - For Adults: Use 20 – 30% DEET on Clothes and Skin
 - For Children: Use 10% DEET on Clothes and Skin
 - Use Permethrin on Clothes and Camp Gear ONLY
- Wear Protective Clothing
 - Long Pant and Sleeves Help Keep Ticks off Skin
 - Light Colored Clothes Help Spot Ticks
 - Tuck Pants into Socks or Boots
 - Tape Area Where Socks and Pants Meet

Lyme Disease Symptoms

- Early Lyme Disease Signs
 - Bulls-eye Skin Rash
 - Picture Below
 - Fatigue
 - Chills and Fever
 - Headache
 - Muscle and Joint Pain
 - Swollen Lymph Nodes
- Late Lyme Disease Signs
 - Arthritis Appears in Brief Bouts
 - Nervous System Symptoms
 - Numbness, Pain, and Nerve Paralysis
 - Problems With Memory or Cognition
 - Rarely, Heart Rhythm Irregularities



Red Cliff Community Health Center, Environmental Health

Bridge Arrives at Frog Bay Tribal National Park

By Chad Abel

The long-awaited steel truss bridge was installed at Frog Bay during the first week of June. The pedestrian bridge spans 130' over the deep ravine near the parking area for the park. It was located at this site to connect hikers on the North Ravine trail loop from the beach to the parking area.

We would like to thank the Wisconsin DNR for providing half of the funding needed for the pedestrian bridge from their stewardship funding program. Larry Balber and Bryan Bainbridge were a big help in writing the successful grant application.



Pet Waste and Water Quality:

Not just on Your Lawn, but in Our Water Ways

By Linda Nguyen



Scooping your pooch's poop isn't just a courtesy for those walking behind you; it is also the healthy and environmentally sound thing to do. Untreated pet fecal matter is harmful to waterways. Rain washes dog waste and the associated disease-causing organisms, such as giardia, E.coli, and salmonella, into rivers, beaches and bays via storm drains. Enough bacteria make water unsafe for drinking and swimming and also contribute to beach closures.

The Water Resources Program is reaching out to community members to improve water quality through pet waste education and deploying three (3) pet waste stations. Pet waste station locations have been picked based on: moderate/high human traffic, reoccurrences of left-behind pet waste, and high E.coli levels. These stations will be located at Raspberry Campground, Point Detour Campground, and Legendary Water Casino's Campground. Pictured to the right is an example of a station. The biodegradable bags are located in the higher box; after scooping poop, a water-tight waste container is conveniently provided for easy discard.



Make a Difference

Fact: A little pet waste goes a long way; according to Washington DNR, a day's waste from one large dog can contain 7.8 billion fecal coliform bacteria, enough to close 15 acres of shellfish beds!

If you're not near one of these stations, there are still ways to help ensure improved water quality:

- ✚ Bring bags with you on walks.
- ✚ Dispose of waste in community or personal trash bins.
- ✚ Don't let your pet pollute, and encourage those around you to be responsible pet owners, too.

What we hope to accomplish with this outreach and project:

- ✚ Bacterial contamination from dogs will be reduced in the waterbodies.
- ✚ Watershed residents and tourists will pick up after their dogs and dispose of the waste in a safe and environmentally sound way.
- ✚ Reduce stepping in poop occurrences.
- ✚ Reduce public health risks associated with domestic dog poop (campylobacteriosis, cryptosporidium, round worms, and toxoplasmosis).
- ✚ Increase awareness that water carries this and other types of pollution into water bodies that people use to swim, fish and recreate.

For more information, contact the Water Resources Program at 715/779-3650 or Linda.Nguyen@RedCliff-nsn.gov.

Links:

U-W Ext. Program - <http://clean-water.uwex.edu/pubs/pdf/pet.pdf>

EPA - <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=4>

Vet- http://www.drsofostersmith.com/Articles/clean_up_waste.cfm

Red Cliff Fish Hatchery



Pictured above are a few youngsters trying their best to hook into a coaster at the annual kids fishing day at the Hatchery.

Pictured below is the gear the kids used to for the annual kids fishing day.

Pictured below right is of Joe Newago Jr. showing off the catch of the day.



G G R D W X T H P T M V V T I
W N X U O N H W E T R U M W N
N J I G K Y V W R Y M O F V A
U R M H R Q M I C P T U U Q Q
G G E E S Q G Z T P D P U T M
E P Z R L I J Y O K Y A H B O
Y I A X M K F P R K C Z U E G
E G N I W G I K A U N A X M L
L C F W K L U S L A E K N T U
L G H D C B L T F R B A R D N
A M T N N V U L I O L F Y H Q
W R I X Y R M Z N Q X A C D B
B F U A E N I F E S O P I D A
F I S H F R Y W N G J V C L F
G F G T E B B N O B R X U N K

ADIPOSEFIN
FISHFRY
TROUT

AQUACULTURE
FISHING
WALLEYE

FINCLIP
PERCTORALFIN



Current Hatchery Updates/ Highlights / News

- ◇ Collection of Walleye eggs
- ◇ Plumbing of new RAS Equipment
- ◇ Filling of Walleye Ponds
- ◇ Annual ECC Fishing Day
- ◇ Releasing first tanks of 2013 Coaster Brook Trout
- ◇ Distributing Coaster Brook Trout to various organizations/people
- ◇ Donation of fish to Great Lakes Visitor Center for their annual kids fishing day



Pictured top Right is the completed plumbing of our new RAS tanks. **Pictured bottom left** is a coaster brook trout showing a pectoral fin clip (one of the many for the year of class of 2013).

Solutions to Crossword

G	+	+	+	+	+	+	P	T	+	+	+	+	+
+	N	+	+	+	+	+	E	R	+	+	+	+	+
+	+	I	+	+	+	+	R	+	O	+	+	A	+
+	+	+	H	+	+	+	C	+	+	+	U	Q	+
+	+	+	S	+	+	+	T	+	+	+	U	T	+
E	+	+	+	+	I	+	O	+	A	+	+	+	+
Y	+	+	+	+	F	P	R	+	C	+	+	+	+
E	+	+	+	+	I	+	A	U	+	+	+	+	+
L	+	+	+	+	L	+	L	+	+	+	+	+	+
L	+	+	+	C	+	+	T	F	+	+	+	+	+
A	+	+	N	+	+	U	+	I	+	+	+	+	+
W	+	I	+	+	R	+	+	N	+	+	+	+	+
+	F	+	+	E	N	I	F	E	S	O	P	I	D
F	I	S	H	F	R	Y	+	+	+	+	+	+	+
+	+	+	+	+	+	+	+	+	+	+	+	+	+

Any Questions or comments please feel free to contact the fish hatchery

(715)779-3595 or (715)779-3750

chase.meierotto@redcliff-nsn.gov

HELP! I HAVE A BEAR PROBLEM!

It is that time of year when encounters with black bears in residential areas are increasing. At this point, many of you may have had encounters or have at least seen bears near your homes. But before you contact the



wardens and request attempts be made to remove the bear, there are some things to think about.

As both human and bear populations increase on the reservation, so will the bear/human conflicts. Seeing and encountering bears in residential areas is becoming more normal and may be unavoidable. There are ways to reduce CLOSE encounters with bears near your home.

In almost all cases, nuisance wildlife, in the spring and summer seasons are looking for food. If you have a dumpster at your home, you have a bear's equivalent to thanksgiving dinner sitting in your driveway. You may want to consider having the dumpster removed for the spring and early summer months. You may also want to consider upgrading to a "bear proof" dumpster with a metal lid. These types of dumpsters are highly effective in keeping out unwanted pests and are usually available for an additional fee. If this is not a viable option for you, then you may want to consider other means to secure your dumpster such as placing boards under the lids and securing them with straps or chains. For other ideas on ways you can secure you dumpster, call the Red Cliff Wardens. It is important to remember that no attempt to "bear proof" a dumpster is 100 percent effective and the only way to eliminate the problem is to have the dumpster removed.



Also if you have a grill that is stored outdoors, a bird feeder or garbage that is left outside, **YOU ARE** attracting bears. This also applies to other nuisance wildlife such as raccoons and skunks. Do not store garbage outside for even a short period of time. Go to the dump frequently. The Red Cliff transfer station is open three days a week (Sunday, Tuesday, Thursday from 800am-600pm). Something as small as a discarded juice box or empty tuna can may be enough to attract the attention of unwanted wildlife.



Sadly, some wildlife have or will become dependent on humans for food, can destruct property and can become a threat to public safety. If you are continuing to have animal issues, call the Red Cliff Wardens. The wardens can help you by providing additional information to help you reduce or eliminate your animal problem and if needed, remove them.

THE RED CLIFF WARDENS CAN BE REACHED AT 715-779-3732



ATTENTION CAMPERS



Fee-exempt Camping at National Forest Campgrounds

Through an agreement between participating GLIFWC member bands and the U.S. Forest Service, Tribal members may camp for free with a permit in U.S.F.S. campgrounds. The free camping permits are available at the Red Cliff Wardens Office (715-779-3732).



To Use A Fee-Exempt Campground You Must:

1. Be a Red Cliff Tribal member or member of another Band that has ratified the Tribal/USFS Campground Agreement.
2. Obtain a Tribal camping permit from the Red Cliff Wardens. Call to make an appointment A list of fee-exempt campgrounds, and the booklet entitled *Regulations Summary: National Forest Treaty Gathering and Camping* are available at the Wardens Office.
3. Follow the camping registration procedures at the campground. Generally, this involves providing information requested on the registration envelopes found at the campground and placing it in the deposit box. Free parking passes are also available.
4. Camp only at the campsite for which you have registered.
5. You may not leave your possessions unattended at a campground for more than 24 hours. If left unattended for 24 hours or more, your possessions may be confiscated and retained by GLIFWC law enforcement personnel.

Other information regarding to camping or other Treaty Rights may be found on the GLIFWC website or by calling the Red Cliff Wardens at 715-779-3732.



Mining Update and New Staff

Aaniin, Sandy nindizhinikaaz. Makwa nindoodem. Wiikweyaang nindoonjibaa. I recently started working in the Tribal Environmental Department as the Mining Resource Specialist. I went to college at UW-Stevens Point for three years before transferring to Northland College where I earned a B.A. Degree in Native American Studies. I grew up here. This is my home, and also my reason for transferring schools. Since the mine was proposed in the Penokee Hills I have been working independently and with others on ways to stop it and educate others on the risks that come with mining.

Enbridge: Enbridge is a corporation that ships and refines crude oil throughout North America.

Why you should be concerned about it: Enbridge is proposing to expand the output of heavy crude oils through existing pipelines in the Lake Superior region, as well as constructing two new pumping stations in Superior, WI. They are also proposing to ship diluted bitumen (Dilbit) across Lake Superior. If dilbit were to spill into Gichi Gami, it would be impossible to clean up, since this heavy form of oil sinks in water.

Though shipping crude oil through pipelines is much safer (in terms of spills) than rail or ship, we still have our concerns. The only REAL way to stop the extraction of Tar Sands is to stop using oil all together. This does not seem like it will happen anytime soon, so pipelines are necessary for the time being; that does not mean that safety, maintenance and regulation cannot be increased.

Enbridge is responsible for the costliest oil spill on land (2010 Dilbit spill into the Kalamazoo River) and many other spills in Wisconsin, Michigan and Minnesota. How can these be prevented in the future? It's possible to install remote control shut-off switches to allow faster response to leaks, but the company says installing remote control shut-off valves would be too costly. To which we respond, what is the cost of cleaning up spills that could have been prevented with a remote control shut-off valve, and how much is a healthy environment worth in comparison to the cost of installing the remote control shut-off valves?



The 2010 Enbridge oil spill in the Kalamazoo River involved heavy crude that sank to the river bottom, significantly complicating cleanup efforts. Removal of oil-contaminated sediment is still ongoing, years later.

Science on Tap in Minocqua: Mining Forum

By Sandy Gokee

On June 5, I attended an informational panel in Minocqua funded through the UW Alumni Association and Science on Tap. The panel consisted of six people from different occupational backgrounds:

Dr. Craig Benson- Chair, Department of Civil and Environmental Engineering, UW-Madison

Ann Coakley- Director of Waste and Materials Management for the WI Department of Natural Resources

Steve Donohue- Director of Mining Sector Services, Foth & Van Dyke Green Bay, Wisconsin

Dr. Tom Fitz- Associate Professor, Department of Geosciences, Northland College

Cyrus Hester- Environmental Specialist for the Bad River Tribe

Dr. Dominic Parker- Assistant Professor, Department of Agricultural and Applied Economics, UW-Madison

The panelists each had different things to say about the mine in the Penokees, though most of their comments were to be taken as not specific to GTac's mine.

Dr. Craig Benson spoke of geomembrane liners for tailing ponds that are said to last 1,000 years. My questions regarding these liners are:

How could anyone know these will last 1,000 years? Even if the liners DO last 1,000 years, what happens then? According to the Flambeau Mining Company (the poster child for safe mining) it would take 4,000 years for pollution levels in the back filled pit to go back to baseline. Mind you, the Flambeau mine is tiny compared to the proposed GTac mine. We're talking a half mile compared to 22 miles. As Anishinaabe people, it's up to us to protect our future's resources, and if the liners only last (in theory) a quarter of the time the pollution levels are said to remain high, then how are we supposed to protect the resources after that?

Ann Coakley spoke about the permitting process. When she was asked about the amount of water that will be used for the project she responded with a slight chuckle and said, "a lot... A lot of water." Many people walked out of the event after this comment was made as a result of the disrespect they felt.

Steve Donohue spoke about the process of mining, from the exploration process to the reclamation process. What he really stressed was that everything is regulated. But we have to remember, regulation does not necessarily mean protection.

Dr. Tom Fitz spoke about the geological formation of the Penokees. The forms of rock located within the mine site contain both sulfates and asbestiform materials. He informed us that when sulfates are dug up, they're exposed to air and water and can potentially cause sulfuric acid, but even if it doesn't create sulfuric acid, it is still a danger to the aquatic plant and animal life. Asbestiform particles, when airborne, can cause respiratory health problems similar to asbestos exposure.

Cyrus Hester spoke about watersheds and the interconnectedness between the health of all levels of watersheds, plant life, animal life, erosion, and Lake Superior. The mine in the Penokees would disrupt the natural flow of water through the ecosystem by diverting streams, filling in wetlands, and causing contaminated runoff.

Dr. Dominic Parker spoke from an economist point of view: "on this hand... but on the other hand..." He weighed both pros and cons of a natural ecosystem and developing a mine. Part of his presentation was on real estate related to the water system houses are on in mining towns. The result is that houses on the city water lines, the real estate value went up over 10%, but houses on well water, the value went down over 12%.

ITS HOT DOG SEASON!!!

TIPS ABOUT ANIMAL SAFETY AND OTHER PET ADVICE FROM THE RED CLIFF WARDENS

The Red Cliff Wardens would like to remind pet owners to keep their dogs safe during the hot weather season. Just remember that even in Northern Wisconsin the interior of a car can reach 160 degrees in a matter of minutes. That means if you travel with your pet, parking in the shade with the windows cracked just won't do. It is easy to get distracted and leave your pet waiting longer than intended, and it's not worth the risk.

If you keep your dog outside, the Red Cliff Code of Laws requires you to provide for your dog, access to appropriate shelter/shade, clean water and food. Making sure your dog has access to water is one of the most important factors in preventing your dog from overheating. Dogs that are tied up or secured by chains can often tip over water dishes. It is recommended you use "tip proof" water dishes or consider digging a hole and putting the water dish in it so the dish is below or at ground level. This will greatly reduce the risk your dog will tip over the water dish. It is also recommended during hot days that you check on your dog frequently.



Heat stroke in dogs can develop rapidly and can lead to organ failure and death. Pets with shorter noses, like bulldogs are more susceptible to heatstroke than breeds with longer noses because there is less area for heat to evaporate. Dogs don't sweat through their skin like humans. Dogs cool themselves by rapid breathing and when the temperature outside is hot and close to their internal body temperature, it means dogs must work even harder to stay cool. So when it is hot for you, it's even hotter for them!

Signs of heat stroke include heavy panting, agitation, glazed eyes, rapid pulse, staggering, vomiting and a deep red or purple tongue. If you think your dog has become overheated, place them in a cool place and apply cool (not cold) water all over its body. Apply ice packs or cold towels only to the head, neck and chest. Let them drink small amounts of cool water or lick ice cubes and immediately contact a veterinarian.



If you have concerns about the welfare of a dog or have other animal control concerns please contact the Red Cliff Wardens at 715-779-3732. If you do not get an answer, leave a message, messages are checked frequently. If you have an emergency, contact the Bayfield County Sheriff's Department Dispatch at 715-373-6120.

Red Cliff Summer Youth Interns



My name is Dalton Gordon. I live in Red Cliff, Wisconsin. My job is the Summer Youth Program Intern. My hobbies are basketball. I like to do that. I played football. My grade is the 9th grade. My age is 14 years old.



My name is Mikayla Topping-Defoe. I am 15 years old and I live in Red Cliff, Wisconsin. My job is the Summer Youth Intern. It's a really good job and you work hard for your communities. My hobbies are basketball, being with friends, working, being outside and four-wheeling. I'm glad I got this job.

Hi. My name is Jolene Topping. I am the new Red Cliff Summer Youth Crew Leader. I was born and raised on the Red Cliff Reservation. I graduated high school this year and I plan to attend Gogebic Community College in the fall for Criminal Justice. I enjoy outdoor activities such as going to the beach.



Native Plant Restoration at the Casino Retention Ponds

This summer, the Red Cliff Water Resources Program will be planting native wildflowers, grasses, and shrubs along the two stormwater retention ponds at the Legendary Waters Casino.

Regular monthly water quality sampling at the Lake Superior beachfront adjacent to the casino has periodically shown levels of nutrients—phosphorus and nitrogen—in the water. Runoff from the parking lots and mown grass contributes nutrients from fertilizers and geese and pollutants from automobiles. By planting deep-rooted, long-lived perennials in a buffer around the ponds, water infiltration and nutrient absorption will be increased, resulting in purer water at the beachfront, and a beautified landscape that supports bees and butterflies!

The Water Resources Program will also be conducting more thorough water sampling at the pond sites and outflows to Lake Superior, in an effort to understand and document how the introduction of native plants can reduce the nutrient-loading and pollutants entering the Lake.



One of the casino's current retention ponds, with mown turf grass. Below are examples of what the pond may look like in a year or two!

Creating riparian buffers around any water body—ponds, streams, even ditches and ravines—can greatly improve water quality, fish habitat, and can protect our sensitive red clay soils from erosion during heavy rains. Choosing not to mow close to the water's edge is a good first step; introducing native plants can have an even greater positive impact! If you are interested in seeing more native plant riparian buffers on the Reservation, or have a particular concern about a water body that you believe could benefit from further study and restoration, please contact the Water Resources Program at (715) 779-3650.





MEYERS BEACH PARKING



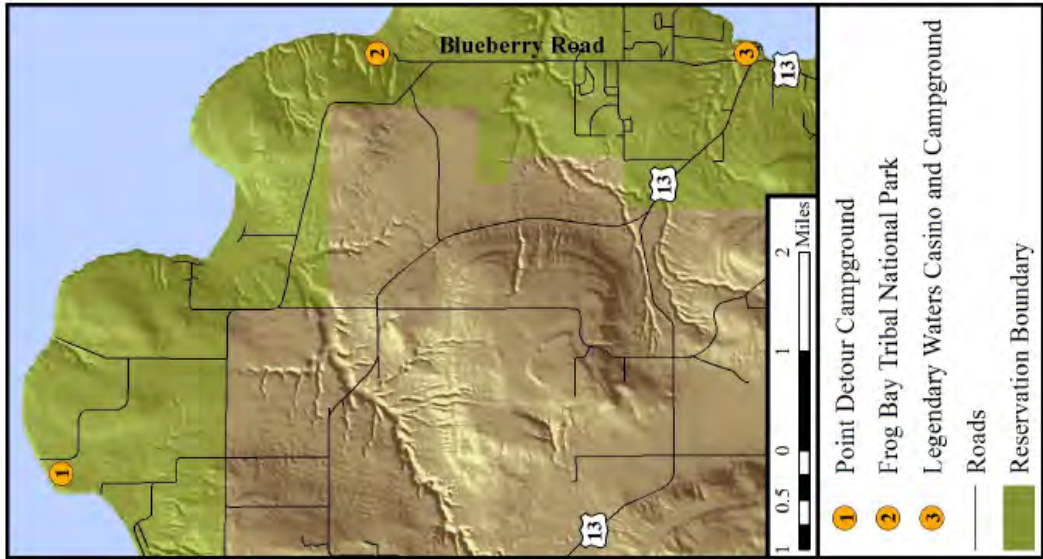
To enhance the opportunity to exercise treaty-retained rights within the Lakeshore, **NO-FEE PARKING** may take place at Meyers Beach subject to the following conditions:

No member shall park at Meyers Beach without providing the following information **ON AN AVAILABLE FEE ENVELOPE (insert no money)**:



- 1) Member's Name
- 2) Member's Address
- 3) Member's Tribal Affiliation
- 4) Member's Enrollment Number

LOCATIONS WHERE VISITORS MAY VISIT TRIBAL LANDS



Frog Bay Tribal National Park is managed through the Treaty Natural Resource Division of the Red Cliff Tribal Government. For questions, comments, or donation information, please use the contact information below.

Red Cliff Band of Lake Superior Chippewa

Treaty Natural Resource Division

88385 Pike Rd, Hwy 13
Bayfield, WI 54814
715/779.3750
FAX 715/779.3763

Primary Contacts

Bryan Bainbridge bryan.bainbridge@redcliff-nsn.gov
Chad Abel chad.abel@redcliff-nsn.gov

Frog Bay Tribal National Park



Red Cliff Band of Lake Superior Chippewa

2014 Update: The **Beach Trail** and **North Ravine Trail** are open to visitors. In June this year, the 130' pedestrian bridge will be complete! Completion of the bridge will connect the parking area to the **Beach Trail** and **North Ravine Trail** loop. You may notice some work continuing on the **North Ravine Trail** this summer, but the trail is in good condition and ready for hikers! Due to site conditions on the **Marsh Trail** we are reconsidering the completion of this trail loop. We plan to assess the site conditions of the **Marsh Trail** this summer and decide if this area will become part of Frog Bay Tribal National Park's permanent trail system. Happy Hiking!



Park Rules

1. Park hours are from sunrise to sunset.
2. Please do not litter.
3. Absolutely no motor vehicles are allowed in the park. This includes ATV. (RCCL 23.4.3, minimum fine \$100)
4. When you see park boundary signs like this one:



You are about to leave the park. Please respect property lines and do not proceed.

5. If you wander outside of park boundaries while on the beach, **YOU MUST KEEP YOUR FEET IN THE WATER** at all times. If your feet are in the water, you are not trespassing. Please respect the private beach located south of the park.



Bayfield High School Students Assist with Trail Work at Frog Bay Tribal National Park (FBTNP)

Water Week, May 27th-May 30th, 2014

During a heavily bug infested week at Frog Bay Tribal National Park (FBTNP), multiple groups of Bayfield High School volunteers assisted in trail development and walk way construction. The students and staff assisted by hauling multiple loads of wood chips for the trail bed, clearing the trail of downed woody debris, and hauling logs to raise the trail bed above the high water line. Most of the trail development was conducted on the lower portion that connects to the Beach Trail.

Walk way construction was located on the North Ravine Trail prior to installation of the 130 ft pedestrian bridge. This task required strong backs and the ability to haul long distances into construction sites. The deck boards ranged from 2 ft to 3 ft in length, which are all recycled boards from the Red Cliff commercial fishing dock. Runner boards hauled out to construction sites were 12 ft and 13 ft long (Walk way lengths). We were able to construct two walk ways, hauled enough timber to build three more walk ways, and laid enough wood chips to cover approximately 100 ft of trail.

All of this effort will coincide with the rest of the work that has been ongoing at FBTNP. The more time and effort we put in developing the trails and building walk ways the closer the 1.6 miles of trails will be tied together. Now that the 130 ft pedestrian bridge crossing the ravine is complete the hikes at FBTNP are going to be more enjoyable for everyone!

The Red Cliff Treaty Natural Resources Division owes thanks to the students and staff that helped out at Frog Bay Tribal National Park.

Written by: *Michael Defoe*



Flambeau Mine: The poster child for safe mining de-bunked

By Sandy Gokee

Laura Gauger published a report on March 10, 2014 that assessed Flambeau Mining Company's (FMC) groundwater contamination at the Flambeau Mine site near Ladysmith, WI. The Flambeau Mine has been used as an example that mining can be done safely without environmental damage by multiple mining companies. Her research proves that FMC has indeed contaminated both ground and surface water at the mine site.

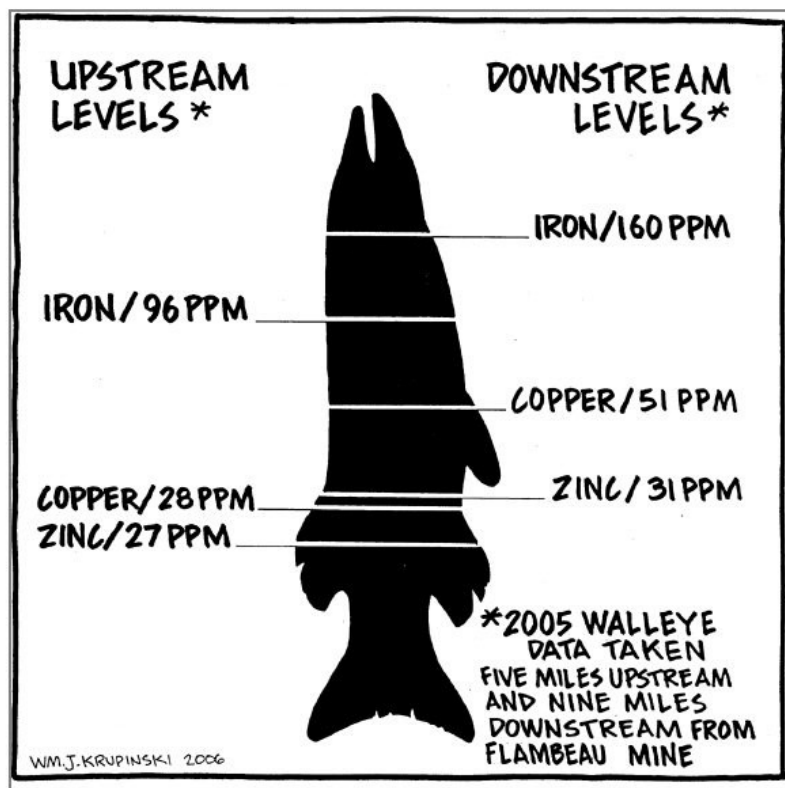
According to her report, based on FMC's own data, ground water between the back-filled mine and the flambeau river have extremely high levels of manganese (a chemical that causes nerve damage similar to Parkinson's Disease); 25 times the Flambeau Mine Permit enforcement standard. FMC reported that the groundwater is seeping into the Flambeau River through a fracture in the bedrock between the mine and the river.

Stream C is a tributary into the Flambeau River, and has been put on the Environmental Protection Agency's "impaired water list" for copper and zinc toxicity as a direct result of the Flambeau Mine. The surface water contamination of Stream C (adjacent to the mine site) is ongoing, even though the mine has been closed for over 15 years. This is happening because the runoff from the mine area still has high copper concentrations as a result of the site not being fully reclaimed in the area near Stream C. Acute toxicity levels of copper to protect fish need to be at or under 8 ug/l. FMC reported the level in Stream C was at 81 ug/l in October of 2013.

A lawsuit was filed against FMC, but they were not successful in prosecuting the company after the appeals process. In one of the court cases, FMC was found guilty, but because they saw the contamination of Stream C as lacking significance, the company was only charged minimal civil penalties of \$275. This decision was appealed and later dismissed.

If ground water is contaminated, why weren't they charged? The company couldn't be charged in Federal Court for groundwater contamination because the Federal Clean Water Act only relates to surface water. According to Wisconsin State law, groundwater contamination within a mine site and for up to 1200 feet from the edge of a mine site is legal.

As can be seen by the report, the Flambeau Mine really is not free of pollution, rather the pollution is legal. The Flambeau Mine is only a small fraction of the size of recently proposed mines. If this level of contamination of ground and surface waters can come from a small mine that was deemed a success, what can we expect from the larger proposed mines?



Sustainability Update

by Mike Balber

Recently the Red Cliff Tribe submitted comments to the WI DNR opposing the Enbridge Pipeline 61 plans to double the carrying capacity of line 61 which runs from Superior to central Illinois to an ultimate 1.2 million barrels daily.

Enbridge Inc. is a Canadian energy company most closely associated with the Tar Sand Oil fields in Canada and the controversial Keystone pipeline in the Midwest. Regionally the company is responsible for the Kalamazoo River spill (840,000 gallons) and several spills and ruptures in Wisconsin alone. Enbridge wants to increase flow in all its pipelines in the Lakehead system including a 60 year old line that crosses the Straits of Mackinac. Plans are in the works for 2 new storage tanks in Superior and eventually barge and tankers to ship oil across the great lakes. Tar Sand Oil is known as one of the least environmentally friendly fuels available. It is described as a “Dirty, Volatile and Corrosive Oil” The extraction process involves strip mining, drilling large swaths of boreal forests, and it is extremely water and energy consumptive. The oil produced is very dense and must be mixed with other chemicals in order to move it through pipelines. This makes a spill in waterways difficult or impossible to clean up. Red Cliff has recognized the threat to unique critical habitat, our fresh water, and to the entire ecosystem, and has voiced its opposition to this project.

How is the Tribe promoting sustainability locally?

The Red Cliff Tribe has long history in conservation and management of resources and has implemented several new and long-running initiatives to promote these sustainable ideas.

The RC Mino Bi Ma De Se Win Community Garden Project- has an open plot for families and shares expertise, tools, promotes healthy sustainable lifestyles, recipes, demonstrations and more.

The RC Miskwaabekong Transit- recognized that rural transportation can be difficult, especially for seniors, disabled or young riders. It offers local mass transport and connects with BART lines.

RC Roads Division- has incorporated walking and bike paths into Hwy 13 and Blueberry Rd. planning.

RC Housing- is building Energy Star rated housing that uses efficient appliances and solar water heating.

RC Health Clinic- promotes healthy living and uses geothermal heating and many energy saving devices and lighting.

RC Natural Resources Division- uses the most clean burning, energy efficient engines available on their boats, and the fish hatchery is upgrading mechanicals to use less water and energy. The division also helps protect the environment by monitoring, fish, wildlife, native plant species and pollution levels.



Red Cliff's new clinic uses geothermal heating

New Employees

in Collaboration with

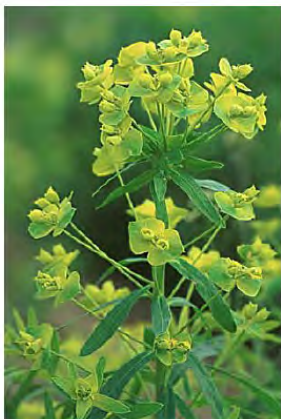
the Wisconsin Tribal Conservation Advisory Council (WTCAC)



Boozhoo, my name is **Edward Boyd Jr.** and I'm working with the Wisconsin Tribal Conservation Advisory Council (WTCAC) in cooperation with the Red Cliff Tribe as the Invasive Plant Specialist. I worked on this project in 2013 during which my crew located all invasive plants inside of the Red Cliff reservation boundaries, so every plant we found was mapped and saved for future reference. Now this year our crew will be controlling, reducing, or eliminating populations of invasive plants on tribally controlled lands. The control methods we will be using are hand pulling plants, mowing plants with weed trimmers, or applying herbicide on the plants with backpack sprayers. We will target many invasive plants with more of an emphasis on priority plants like Phragmites, Purple Loosestrife, Giant Knotweed, Japanese Knotweed, Leafy Spurge, and Spotted Knapweed. Along with these plants we will be looking to eradicate plants like Tansy, Canada Thistle, Crown Vetch, Bird's Foot Trefoil, Forget Me Not, and

Sweet Clover in our culturally significant areas. For example the stretch of highway from the Red Cliff boundary sign from Bayfield to the Veteran's park will be an area of concern where we will try to erase invasive plant populations. I would like to welcome Josh Lafernier as my sidekick to help with these problem plants in which we will be putting the hurt on. I would like to thank the Red Cliff tribe and WTCAC for the opportunity to take care of these ugly weeds. We want to stop them now so they're not spreading to take over our native plants and ruining our beautiful landscape within the Red Cliff reservation. Miigwetch, Edward Boyd Jr.

Hello everyone, my name is **Josh Lafernier**. I was born and raised here in Red Cliff. I was recently hired by the Wisconsin Tribal Conservation Advisory Council through the Red Cliff Natural Resources (RCNR) to help control the rapid spread of invasive plant species on our reservation lands. The crew that I will be working with will be locating any invasive plants and using many different methods, such as cutting, hand pulling and spraying, to remove and or stop the spread of them. If you have any questions or know anything that could help us in our project please contact the RCNR at (715) 779-3795.



Leafy Spurge



Spotted Knapweed



Giant Knotweed



Red Cliff warden Lucas Cadotte, left, out on Gitchigami with DNR staff. Remnants of one of the coldest winters in recent memory still drift on Lake Superior, June 6th, 2014.

RED CLIFF BAND OF LAKE SUPERIOR CHIPPEWA

Treaty Natural Resource Division



Fisheries	715-779-3750
Tribal Historic Preservation	715-779-3795
Environmental	715-779-3650
Natural Resources	715-779-3795
Transfer Station	715-779-0171
Conservation Wardens	715-779-3732