

Treaty Natural Resource Division

Red Cliff Band of Lake Superior Chippewa

Volume 4, Issue 1 Spring 2015

Ganawenjigaade

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



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“Duff in the Rough” Mark Duffy gathers sap at his sugarbush.

ZIIGWAN - IT IS SPRING



Iskigamizige giizis-April
Zaagibagaawi giizis-May
Ode'imini giizis-June

Mino giizhigad - It is a nice day

BAZHIBA - TO SPEAR
BAZHIBA'IGE -SHE/HE SPEARS THINGS



Aniibiishan – leafs
Ojiibikan – roots
Shiizhinsan - stems



WAABIGWANIIN - FLOWERS

Employee of the Month

An office is only as good as its staff. And we here at the Treaty Natural Resource Division think 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



January Employee of the Month – Sandy Gokee, Mining Specialist

Sandy was hired into her position in 2014 to help Red Cliff address the numerous mining proposals cropping up throughout the Lake Superior basin. The GTAC proposal in the Penokees was particularly troublesome as it was in the headwaters of the Bad River. Sandy has helped to organize Red Cliff's response to outside agencies that permit mining and pipeline applications, and she improved education and outreach to the Red Cliff community about these activities. Her role in orchestrating the Mining Alternatives Summit at Red Cliff in January deserves special recognition, and for that she was nominated employee of the month. Thank you Sandy!



February Employee of the Month – Beth Raboin, Sustainability Coordinator

Beth also joined our staff in 2014 to guide sustainability efforts in the Red Cliff community. I appreciate Beth's approach of looking both within and outside of Red Cliff in defining what sustainability means for this community. Beth was particularly involved with coordinating the Tribe's opposition to the corporate farm that wants to operate a CAFO near Ashland. Through intense grassroots advocacy, future CAFO proposals have been suspended by county moratorium for at least the next 12 months, allowing time for proper zoning and baseline data collection. Thank you Beth for your continued passion in guiding sensible sustainability strategies!



March Employee of the Month – Fran Cadotte, Hatchery Technician

Throughout the winter months, work in the hatchery does not slow down. Eggs and milt need to be collected from our brook trout broodstock, and good eggs need to be separated from the bad. There is also fin clipping, tank cleaning, and feeding that needs continual attention. For that, our Division relies on Fran. He quietly goes about his job and keeps things running smoothly. He is also just a nice guy to have around, and he is the first to offer a hand to others who need it. Thanks Fran for being the person you are.

Red Cliff Spring Clean Up 2015

SUN APRIL 19TH—FRIDAY APRIL 24TH!!

SUN, TUE, THUR 8:00AM-6PM / MON, WED, FRI 8:00AM-4:00PM

**LET'S KEEP OUR MOTHER EARTH CLEAN!!!
TAKE PRIDE AND VOLUNTEER IN OUR
COMMUNITY CLEAN UP EVENT!!!**



Appliances—\$5.00
Appliances w/Freon—\$25.00
Electronic Waste per component—\$10.00
Tires—\$2.50
Every Full Truck Load—\$40.00
Every 1/2 Truck Load—\$20.00

NOTE: Black or other non-clear garbage bags will not be accepted at the Transfer Station. Recyclable items (paper and cardboard, aluminum cans, bimetal cans, glass, plastic) must go in the recycling bins, not the compactor.

There will be incentives for volunteers!!

We encourage the community to pull together and get their spring cleaning done! Please Recycle! No household garbage bags/green bags in the dumpster.

You must haul your own waste unless you are disabled and/or have no means of transportation. Must pre-arrange pickup's and pay in advance at Red Cliff Tribal Administration. **Wood, Metal, and Miscellaneous must be separated at curbside.** Household garbage will not be picked up. Please contact the Red Cliff Environmental Dept. to answer questions and schedule pickups at 779-3650!

Community Roadside Clean-Up Friday April 24th, 2015. For details on how to volunteer please call our Environmental Dept. at 779-3650.

Miigwech!!!

Sponsored by the Red Cliff Treaty Natural Resource Division, Facilities Management, Conservation Wardens, Environmental Program, Community Health Clinic, Housing Authority, Tribal Administration
Special Thanks to community members and Tribal staff who have helped beautify our community every year.



Celebration of the Wolf Event April 26, 2015

The celebration of the wolf event was successful, with over 60 people in attendance. In addition, the event and *Wolf Protection Plan* received a tremendous amount of positive feedback and support in the days leading up to the event. Numerous news agencies, social media sites, and websites carried coverage of the plan and event. The event consisted of an opening ceremony performed by Brian Goodwin and Marvin Defoe, with Marvin also acting as MC. There was also a community meal for all in attendance. The presentation featured background information on wolves in the state, wolf biology and ecology, current status of wolves in Wisconsin, and critical information to be found within the Wolf Protection Plan. The presentation also featured a question and answer session as well as a myriad of photos from wolves in Red Cliff and around the world.



A Big Win for Lake Superior

GOGEBIC TACONITE WITHDRAWS MINING APPLICATION

Work on the Gogebic Taconite mine sputtered to a halt this February with the company's announcement that the project was proving infeasible. Bob Seitz, former spokesman for Gogebic, cited concerns that the EPA's water quality standards could prove prohibitively restrictive in light of recent precedents set by the EPA's treatment of the Pebble Mine in Alaska. Seitz also pointed to the abundance of wetlands in the region, stating the company was concerned over the cost of adhering to the state's standards of remediating wetlands with 1.5 acres of wetland replacement for every acre destroyed by mining activities.

According to the Wisconsin Department of Natural Resources (WDNR), Gogebic has withdrawn its pre-application notice, and will soon reopen the land associated with this application to the public. The WDNR plans to work with Gogebic to ensure adequate site remediation and maintenance of the 3,500 acres within the Penokee Hills.

We at the Treaty Natural Resources Division would like to extend a sincere thank you to everyone who worked to stop this mine. Each of you played an important role in the massive collective effort that ultimately succeeded in protecting this place *and* its people. We would like to send a special thanks to our very own Sandy Gokee, who was instrumental in organizing the hugely successful and informative Mining Alternatives Summit in January. Sandy has been a tireless leader here at Red Cliff and beyond. Thank you also to the countless people who helped to make the Summit a great event. From organizers, to presenters, to attendees, we are grateful for your contributions and enthusiasm.

Along with celebrating Gogebic's retreat, now is a great time to reflect upon all we can achieve when we come together and put our heads and our hearts to action.

By: Beth Raboin





WHAT'S HAPPENING WITH THE PIGS?



By: Beth Raboin, Sustainability Coordinator



Reicks View LLC's application for permitting to develop a 24,000 animal swine breeding facility in Bayfield County has raised a big stink with many stakeholders. The proposed facility raises local concern over the management of the annual production of 6.5 million gallons of waste. In addition to threats to our water quality, other concerns often associated with factory-scale livestock production include: irresponsible and excessive antibiotic use, negative impacts on human health and quality of life, animal welfare abuses, negative impacts on the tourist economy, and negative impacts on regional farmers.

On December 22 Red Cliff's Tribal Council passed a resolution in opposition to Concentrated Animal Feeding Operations (CAFOs) on the reservation, in Bayfield County, and in Ceded Territory. Tribal Chair Rose Gurnoe-Soulier also sent a letter to the Bayfield County Board that states the tribe's opposition to CAFOs and requests Bayfield County enact a two year moratorium (or hold) on CAFO development within the county. On February 18 the Bayfield County Board of Supervisors voted to enact a one year moratorium on CAFO development with the option for a six month extension of the moratorium.

There is some question as to whether the moratorium applies to Reicks View LLC, because they submitted permit applications that could technically exempt the proposed facility from the moratorium depending upon the now contested legal definition of whether the applications were complete before the moratorium went into effect and whether these applications signify Reicks View holds vested interest.

Whether or not Reicks View is found vested will determine what will happen next. The Wisconsin Department of Natural Resources (WDNR) also has the option to require an Environmental Impact Statement (EIS) be completed before the proposal moves forward, but this project review process is not mandatory. The Red Cliff Treaty Natural Resources Department stands in favor of requiring an EIS, as the review process would provide stakeholders a greater capacity to mitigate potential impacts. An EIS would also provide opportunity for a public comment period.

Members of the Red Cliff Treaty Natural Resources staff have been working with staff from Bad River and the Great Lakes Indian Fish and Wildlife Commission to gather information and collaborate with the WDNR, Bayfield County, and the other invested stakeholders to ensure we protect our waterways, our environment, our local farmers, our health, and our quality of life.



Industrial-scale swine production in Bayfield County? Perhaps when pigs fly...



Lake Superior Barrels Project Update



Status of Investigation Report

Between 1959-1962, the U.S. military dumped 1437 barrels of classified ammunition waste (Blu-4 cluster bomblet) and 300 crates of .50 caliber ammunition from WW2 and other production line debris. As a result of this dumping in Ceded Territory, with funds made available from Congress through the NALEMP program, we have been doing a thorough investigation to find out more of what is down on the lake bed in Gichi Gami (Lake Superior) and what harm can come to the environment and human populations around the North and South shores of Gichi Gami.

Currently, the U.S. Army Corps is in the process of reviewing the Investigation Report, prepared after the initial release of the Draft Remedial investigation Report. This report will characterize everything that has been found in the 25 barrels that were pulled in 2012. Samples that were collected in 2012 were submitted to an analytical laboratory for analysis of organic constituents, conventional analytes, and metals. Samples of sediment and water from the environment surrounding the dump sites (environmental samples) were also collected and analyzed for the same analytical parameters as the barrel samples. We will know more in the near future when we receive the document back from the Army Corp and start the draft Summary Report, which will be take place 2015-2016.

If you would like to know more about the project, please call Gary Defoe Jr at 715-779-3650, or stop by the Environmental office. You can also email at, gary.defoejr@redcliff-nsn.gov.
Chi-miigwech!

New 2015 NALEMP Project Logo



Proposed changes to Subpart J of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP)

Spring Newsletter 2015

The U.S. Environmental Protection Agency (EPA) is proposing to amend Subpart J of the National Contingency Plan (NCP) requirements for the use of dispersants, and other chemical and biological agents to respond to oil spills in waters of the U.S. This is a result of an incident that took place on April 22, 2010, when the mobile drilling unit DEEPWATER Horizon sank after an explosion and a severe fire. The US Coast Guard implemented its responsibility to lead the federal environmental response actions in the coastal zone and oversaw all response operations.

The USCG, in consultation with the EPA, other federal agencies and af-

fected states, authorized the use of dispersants on the water surface in an attempt to mitigate the shoreline impacts on fisheries, nurseries, wetlands and other sensitive environments. EPA has conducted research on improved laboratory protocols for dispersants and bioremediation efficacy.

The EPA is initiating consultation and coordination with federally recognized Tribes on the proposed changes in government-government consultation calls. Oil spills and other chemical agents used in emergency response, can impact tribal resources as land, water, or fishing and hunting areas. Info is available on the EPA Tribal portal <http://tcots.epa.gov>



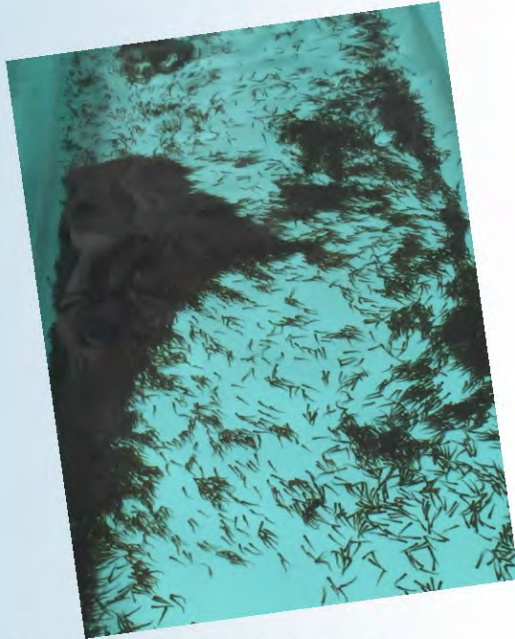
If you would like to know more, please call Gary Defoe Jr at the Environmental office: 715-779-3650 or by email: gary.defoejr@redcliff-nsn.gov.

Proposed Rule Amendments

Over the past several years, EPA has conducted research on improved laboratory protocols for dispersant and bioremediation efficacy. As a result of this research and the lessons learned during the Deepwater Horizon event, the Proposed Subpart J amendments seek to ensure that:

- Chemical and biological agents have met efficacy and toxicity requirements,
- Product manufacturers provide important use and safety information, and
- The planning and response community is equipped with proper info to authorize and use the products in a judicious and effective manner.

Red Cliff Fish Hatchery



Pictured above and below left are the newly hatched Coaster Brook Trout from 2015

Pictured below right are 2013 fish in the new RAS.



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

EGGS
HATCHERY
TROUT

ADIPOSEFIN
FRY
REDCLIFF

FISH
PECTORALFIN
WALLEYE



Current Hatchery Updates/ Highlights / News

- ◇ All of the 2015 brook trout eggs have been sorted cleaned and hatched
- ◇ Excess fish from 2013 have all been clipped with a LP & AD (left pectoral and adipose) and ready for release



Pictured above is a picture of staff collecting the walleye from a drained pond from the 2014 season.



Pictured above one of the walleye reared in 2014

- ◇ The Recirculating Aquaculture System Tanks have been filled with fish and are being monitored
- ◇ Preparation for the spearing season has begun.
- ◇ Walleye eggs will be collected from the pike lake chain for 2015

Solutions to Crossword

Solution

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+ + + + I + + + + + + + + I W
+ + + + F R E D C L I F F + A
+ + + + L + H + + + + E + + L
+ + + + A + A + S S + + + L
+ + + + R + + + T O G + + + E
+ + + + O + + + P C + G + + Y
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Any Questions or comments please feel free to contact the fish hatchery

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

chase.meierotto@redcliff-nsn.gov

World Water Day

By: Linda Nguyen

World Water Day has been observed on 22 March since 1993, declared by the United Nations (UN) General Assembly. Every year since then, there have been specific topics to address a momentous event that occurred in the year previous. This year was named: **Water and Sustainable Development**. Water and use are closely interlinked and interdependent. How and duration of our water uses affects climate change, agriculture, food security, health, energy and livelihoods.

By 2030, it's estimated that the planet's water supply will be facing a 40% shortfall. The UN is working closely with its Member States and other relevant stakeholders to collectively bring its attention to the water supply and demand issues, particularly addressing inequities, especially for the 'bottom billion', which live in impoverished rural areas and survive without access to safe drinking water, adequate sanitation, sufficient food and energy services. It also aims to facilitate the development of policies and frameworks that bridge energy security and sustainable water use in a green economy. Particular attention will be paid to identifying best practices that can make a water- and energy-efficient 'Green Industry' a reality. Past topics have touched upon Water and Culture, Water Scarcity, and Women and Water.

Two summers, I wrote an article about balloons being found by the mouth of Sand River after drifting from several hundred miles away from their original location. This specific event showcases how our human actions are interconnected; what happens in one place can affect an animal, litter a pristine shoreline, or degrade water quality somewhere. On a global scale, here are some hard facts provided by the UN Water Day webpage:

- About 1 billion people world-wide lack access to clean water.
- 3.5 million deaths are water-related diseases.
- Every 20 seconds a child dies from water-related diseases.
- Collectively, 200 million hours are spent every day by women collecting water.
- On average, one flush from a toilet in the United States uses more water than one person in the sub-Saharan Africa will use all day.

Actions begin with us. Here is a reminder of what we can do as individuals on a local level that will have accumulated, positive impacts:

- Join the water conservation movement
- Participate and comment on the Red Cliff Treaty/ Natural Resources efforts
- Calculate personal water usage (<http://wateruseitwisely.com/100-ways-to-conserve/home-water-audit/>) and turn it into a game for the family to cut out excessive usage – same for energy usage
- Collect water in rain barrels to water your garden
- Be on the lookout for WaterSense appliances

World Water Day (Continued)

You won't be alone in your efforts. The Red Cliff Water Resources Program will be implementing and participating in several projects and events this year to help maintain water quality, which include riparian planting around the casino ponds, maintaining 3 dog poop stations, annual spring clean-up event, annual watershed symposium event, drafting the Red Cliff Watershed Management Plan, and continuation of water quality monitoring. Stay tune for flyers!

Water is essential for our survival. It is important to remember that water is not a permanent resource; in some areas of the world, it's not available all year-round. Together we can create a better world for the next 7 generations.



(Raspberry River photo taken by the Water Resources Program staff.)

For more information:

Event info: <http://www.un.org/en/events/waterday/>

<https://www.facebook.com/UNWorldWaterDay>

Tips: <http://wateruseitwisely.com/100-ways-to-conserve/>

<http://www.waterislife.com/>



Stewards of the Land = Sustainable Living

The Environmental Department

“Plans to protect air, water, wilderness, and wildlife are in fact plans to protect man.” - Stewart Udall

“Whatever befalls the earth befalls the people of earth. Man did not weave the web of life; he is merely a strand in it.” -Chief Seattle

“Sustainable living is a lifestyle that attempts to reduce an individual’s or society’s use of the Earth’s natural resources and personal resources.”

Fundamentally, the application of a sustainable lifestyle depends greatly on the choices and decisions we make, with each factor (individually or as a whole), playing a key role in how a biological system remains diverse and productive, in which sustainable design and development are both critical factors.

Sustainable design encompasses the development of appropriate technology, which is a staple of sustainable living practices. **Sustainable development** uses these technologies for infrastructure, which meets the need of the people without compromising the needs of future generations.

Sustainable architecture and **agriculture** are the most common examples of this practice.

Sustainable architecture is architecture that seeks to minimize the negative environmental impacts of buildings by efficiency and moderation in the use of materials, energy, and development space.

Sustainable Agriculture is the act of farming using principles of ecology (the study of relationships between organisms), and their environment.

As “**Stewards of the Land**,” we all need to take part in doing what we can to live in a way that makes a positive impact in and on our surroundings. The following are some examples of sustainable practices that Red Cliff is utilizing at this time.

- A **Geothermal** (heat from the Earth) **Heating System** has been installed at the new Red Cliff Health Center, which is clean and sustainable.
- The new lighting on highway 13 use **LED** (Light Emitting Diode) **bulbs**, with an operational life expectation of up to 100,000 hours (that’s 11 years of continuous operation!!), with an estimated 80 to 90% energy efficiency rating.
- The housing authority is building energy efficient homes that incorporate solar heat collectors, and are also using updated home improvement techniques and appliances in their home improvement/rehabilitation projects, reducing heating costs by up to 50%.
- Many people heat with **wood** or **pellet stoves** in which uses a renewable resource and also helps keep heating costs down.
- The **community garden** utilizes the efforts of a few, to benefit the many. Anyone can participate, and what a way to bring people together!

The **Red Cliff Tribe** and its people recognize the value of sustainable living. Its personal and cultural significance has carried our people through the generations, and will for many more to come. There are many other ways to incorporate sustainable living practices into everyday life. Here are just a few to consider listed below:

Live close to where you want to go. Most long distance methods of travel have an enormous environmental impact, or just take too long (are we there yet?). Consider where your friends and family live, where you work, and where you shop. Learn about the impact of various types of transportation available so you can make a more informed decision.

Take a good look at the energy use and sustainability of your home. Consider insulation, the orientation, location, and the size of your home and how it affects your heating requirements. Consider the hot water system, electrical system, and water use. In many cases, when it's time to replace a major appliance, the "**energy star**" logo can be found on many of these items, which can be used to guide you in finding the right item for your needs, in both efficiency and energy savings.

Keep learning. Things change over time, and we all need to understand whether or not we should change too. It takes a long time to understand the damage or impact we have on our surroundings through the downstream effects of our actions. So by continually striving to make things better for our future generations, we eventually will see our endeavors become reality.

The **Red Cliff Environmental Department** embraces these practices and assists others by providing information and access to resources necessary to make informed decisions. We are "all in" when it comes to the conservation of our natural resources.

With the warming of the weather (finally!!), the most common activities will be in full swing, such as:

Gardening- Sustainably speaking, you can grow your own or use local products. You can plant a simple garden or promote the growth of your favorite native plants, fruits, or berries, just to name a few. And should you become ambitious, you could work your way out to the surrounding orchards, berry farms, and finally to the wilderness for harvestable foodstuffs, fish, game and firewood. Remember, we have a community garden that would love the extra pair of hands!

Housing construction- Ideally one should utilize sustainable materials, such as off grid power (solar panels/wind turbine), certified green building materials, energy star rated appliances, and to do our best to leave a zero carbon foot print. Unfortunately, many of these items are not cost prohibitive initially, but quite literally pay for themselves over time in the form of energy savings.

Gardening and **Housing** ideas are only the tip of the iceberg. There are volumes of resources available via the internet. Key terms to look up include; **Permaculture, Tiny homes, Renewable energy, Bio fuel, Organic and Hugelkultur farming, Aqua culture, Alternative heating**, and the list goes on. However, there are many people in the local community who are very knowledgeable in these practices, and very informative on what works and what doesn't in our area. If you are interested in knowing more, feel free to contact the staff at the **Red Cliff Environmental Department** office, and we can help point you in the right direction. And remember...

"the journey of a thousand miles begins with the first step..."

Marten Den Box Project and Tribal Wildlife Grant

By: Jeremy St. Arnold

American marten (*Martes americana*) are cavity nesters that prefer old growth conifer forest. Red Cliff is fortunate enough to not only have some of these increasingly rare stands featuring hemlock and cedar, but a population of state endangered American marten as well. However, these forest stands are not all contiguous (spanning a large, uninterrupted area), and do not provide enough denning habitat on their own to help marten proliferate. This is where the den box idea comes in. If creating artificial nesting habitat works for other species that utilize trees and tree cavities, then it might work for marten too.



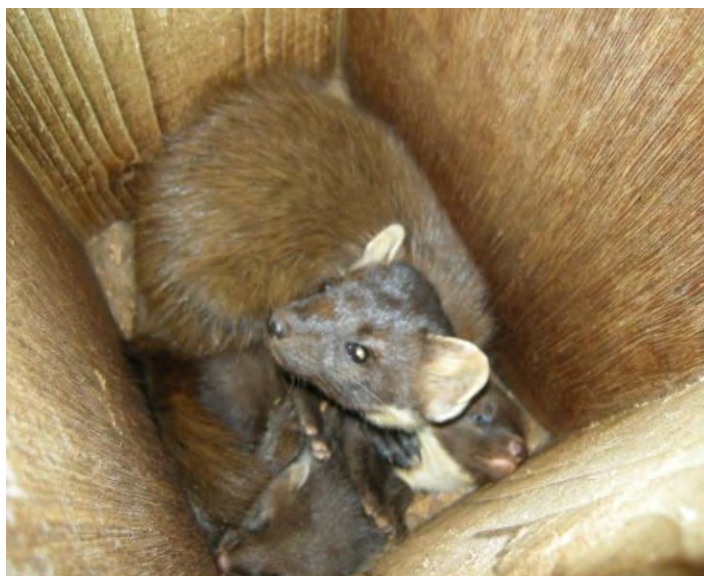
After deciding that providing critical marten den habitat was a viable project, the next step was to locate a design. Although locating a design was not difficult, I soon realized that the majority of traditional designs that have been tried in this region have had little to no success. Finally, I found a design that was just a little bit different from the others, not only in terms of design, but in past success as well. The design happened to be for the American marten's cousin from Europe, known as the Pine marten (*Martes martes*). The den boxes include two entrance chambers and one den chamber, simultaneously providing suitable denning conditions and a reprieve from predators.



The Treaty Natural Resources Division likes to encourage youth to participate in projects and outdoor activities, so collaboration with Bayfield School was an obvious choice. Both Rick Erickson and David Doering's classes have been and will continue to participate in the project, having completed 30 den boxes.

Some students helped out with construction, while others will help with den box placement in late summer after the denning/kit rearing period is over (so as not to disturb any marten).

The den boxes will be monitored using minimally invasive techniques. One technique will be to visually observe scat or other genetic material and collect it for testing.



Another technique involves inspecting the inside of the den boxes with an endoscope to capture photographic evidence of any breeding/resting marten that are inside.

Even if marten do not utilize all of the boxes, they are still beneficial. Did you know that there are over 80 different wildlife species that make use of tree cavities for nesting/denning purposes? Some species include: fisher, red squirrel, mice, bats, owls, bees, raccoon, and a myriad of birds. The Treaty Natural Resources Division asks that you please not disturb any den boxes if you see them around the reservation. Marten are endangered in the state and they are also an important clan animal to the Tribe. Likely places for the boxes to be installed include: Eagle Bay, Sand Bay, Point Detour, Frog Bay, and Raspberry Bay.



*The den box materials were purchased at Olson's Building Materials. Olson's also donated to the project in the form of a discount on the materials. **Red Cliff Wildlife and Forestry would like to give a big thank you to Olson's Building Materials for donating to the project and to Bayfield School for collaborating on the project.** Also, there was an article written about the project in the Bayfield County Journal (BCJ) by Hope Mcleod in early March and it can be found on the BCJ website.

Exciting Research News:

The Wildlife & Forestry Program of the TNR Division was recently awarded a Tribal Wildlife Grant for marten research. The grant funding is for \$200,000. The goal of the 2 year research project is to gather as much data as possible about the Red Cliff American marten population and use that data to generate a biological report/assessment for the Tribe. Staff hopes to learn about marten population dynamics, home range, habitat use, preferred prey/available prey within reservation boundaries, den site and resting site data, source population, and the effects of competition with fisher. Once the funds are received the next stage is to order all necessary supplies including: GPS/telemetry collars, PIT tags (like what people use to ID pets), PIT Tag readers, live traps, remote data download base stations, telemetry receiver with antenna, additional motion sensor trail cameras, and more.

FORESTRY UPDATE

Recently, you may have noticed or heard about trees around the reservation being flagged with green tape (tied around tree at breast height ~ 4.5 ft.). Rest assured these trees are not marked to be cut; they are simply marked so that a percentage of the measurements can be verified later for accuracy and quality control. Trees will be marked around the reservation as part of a Forest Stand Inventory being conducted by the Tribe, with assistance from BIA Forestry in Ashland. The purpose of the inventory is to determine the current status of forest resources on tribal lands for future management decisions. In preparation for this project, Tribal forestry & wildlife staff attended 4 days of training last year to learn the data collection methods, gain familiarity with different equipment, and learn BIA data collection protocols. The classroom portion of the training took place in Ashland while the field training took place here at Red Cliff.

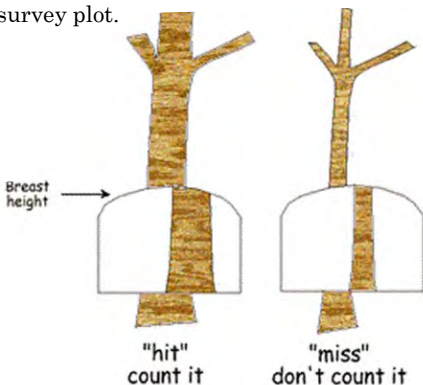
Overall, roughly 8,000 acres will be surveyed; including nearly 2,000 individual plots. Measurements taken by staff will include: total height of tree, diameter at breast height, tree regeneration, species of each tree measured, dominant species represented in the stand, secondary dominant species in the stand, the age of the stand, etc. Measurements will later be compiled into a database and will be updated periodically to account for changes in the resource.

By: Jeremy St. Arnold



Above: Criterion RD 1000=Instrument used to estimate total tree height and other forestry calculations

Below: View through a wedge prism, displaying "out" tree, meaning it would not be counted as part of a survey plot.



Wildlife and Forestry Staff
Performing Tree Stand Inventory

Reducing Federal Emissions

By: Trevor Wilk

Last month, President Obama signed an executive order that requires federal agencies to cut their emissions by 40% and to increase their use of electricity from renewable sources by 30%. The goal of the executive order is to reduce the amount of climate change causing greenhouse gases entering the atmosphere. Though reducing emissions to prevent further climate change is a good thing in and of itself, there are also economic reasons behind the executive order. The federal government has an astounding amount of infrastructure: 360,000 buildings, 650,000 fleet vehicles, and \$445 billion in annual spending. By reducing emissions and increasing renewable energies over the next 10 years the executive order could save up to \$18 billion over the next decade. Here are a few of the details on how federal agencies are expected to achieve these goals.



- Ensure 25 percent of their total energy (electric and thermal) consumption is from clean energy sources by 2025.
- Reduce energy use in Federal buildings by 2.5 percent per year between 2015 and 2025.
- Reduce per-mile GHG emissions from Federal fleets by 30 percent from 2014 levels by 2025, and increase the percentage of zero emission and plug in hybrid vehicles in Federal fleets.
- Reduce water intensity in Federal buildings by 2 percent per year through 2025.

The connection to Red Cliff in this emission reducing executive order is that recently the Red Cliff Energy Team started meeting to achieve some of these same goals. The objectives of the Energy Team are still being determined but there have been some interesting discussions so far on a host of ideas.



There are many ways for buildings and people and governments to reduce energy usage; from an easy approach like turning off light bulbs when not in use to retrofitting a building for solar panels. There are many paths to take to becoming more energy independent, and hopefully with the help of the Energy Team, Red Cliff will make strides down the right path.

THE PORCUPINE

By: Trevor Wilk

Porcupines are an animal that had I never really paid much attention to, that is, until my dog started paying attention to them, usually in the form of trying to bite them. It seems my dog Coal, who by all other standards is an intelligent animal, is rather unintelligent when it comes to porcupines. Every year, without fail, over the last 5 years he has tried (miserably at that) to make a meal out of one of these interesting, solitary creatures. And every year, without fail, over the last 5 years my wife and I spend an evening pulling quills out of his face. Luckily the porcupines seem to go unscathed at these attempts for a meal. This has been my only real connection to the



porcupine, and it hasn't been a good one. So I started to do a little research on them and it turns out that they are a fascinating animal, and have become one of my favorites. Here are a few interesting facts:

- Porcupine quills are coated with an antibiotic. This isn't for predators that try to eat them but because they often impale themselves with their own quills.
- Baby porcupines are called porcupettes and are born with soft quills which will harden in a few hours.
- They are the second largest member of the rodent family only behind the beaver.
- Adult porcupines can have up to 30,000 quills!
- Porcupines don't hibernate through the long, cold winters. Instead they steadily eat their way through winter, subsisting on low-nutrition food like the inner bark of spruce and white birch. Other members of the rodent family, who don't hibernate, like muskrats, rely on caches of highly nutritious food for winter survival. This paradox, of not hibernating or eating highly nutritious food throughout winter seems like a tough way to make it through the season. But porcupines go into winter with a lot of body fat—upwards of 60%, and this is what gets them through the winter. They often lose most of this fat but don't lose any lean body mass.

Our Nesting Neighbors

By: Beth Raboin



The ruby throated hummingbird makes its nest out of thistle or dandelion down and moss held together by spider silk and resin. Adults feed their young on insects and spiders. Adults also feed on nectar and in lean times eat sap (collected from holes made by yellow-bellied sap suckers).



Chickadees are cavity nesters. They will occupy nest boxes and are drawn to areas with standing deadwood. Decaying trees abound with a diversity of insects for the birds to eat and cavities that make good nest shelters like the one to the left.



Ground nesters' eggs can be easy targets for predators. Above left the piping plover uses camouflage to protect eggs. To the right the common killdeer distracts predators away from the nest by pretending to have a broken wing.



The belted kingfisher eats fish, and lives in excavated holes in stream banks and cliff faces. Fun fact: The female kingfisher is one of only a few birds whose feathers are more decreative than those of its male counterpart.



Above: Female Baltimore orioles weave these fine nests that can often be spotted high in the branches of maple trees.



A trick to finding nests: watch for adults carrying food in their beaks. The wood thrush pictured above might be elusive, but chances are high that this one is headed to feed its young at its robin-like nest. (Robin's are also part of the thrush family.)



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 deploy 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 are 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 tourism 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.

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



ICE DANGER AND ICE SAFETY



Before going out onto a frozen lake, pond or river, it's important to take safety precautions to reduce the risk of falling through the ice. Knowing how to judge ice conditions will also help you make more informed decisions while fishing or recreating on frozen lakes.

Springtime can be an especially dangerous time to venture out on a frozen lake. The springtime's warming temperatures can create rapidly changing and unpredictable ice conditions. Remember there is no such thing as ice that is completely safe. Here are some important tips to follow before you decide to venture out.

Carefully Check Ice Conditions

- **Remember** you take a risk anytime you go out onto the ice.
- **Ice thickness is not consistent.** Water currents, particularly around narrow spots, bridges, inlets and outlets, are always suspect for thin ice.
- **When ice fishing**, it is always a good idea to drill test holes as you progress out onto a lake to help judge the thickness and character of the ice.
- **Beware of ice around partially submerged objects**, such as trees, logs brush, embankments or dam structures.
- **Don't judge ice strictly by appearance.**
- **Stay away from cracks, seams, pressure ridges, slushy areas and darker areas that signify thinner ice.**
- **Be aware of ice that forms at the edges of lakes.** Ice melts at the edges first in spring.

Carefully Check Ice Conditions

- **Never go out onto the ice alone.** A buddy should be able to rescue you or go for help if you fall through.
- **When changing locations on the ice always walk at least 10 yards apart from your buddy.** If one person falls through the ice, the other can go for help.
- **Before you leave shore**, inform someone of your destination and expected time of return.
- **Always wear a life jacket or personal flotation device (PFD)**, over an ordinary snowmobile suit or layered winter clothing. Life jackets can provide excellent flotation and protection from hypothermia. Specialized coats that float or dry suits are also highly recommended.
- **Assemble a personal safety kit**, no larger than the size of a man's wallet, and carry it on your body. The kit should include a lighter, waterproof matches, magnesium fire starter, pocketknife, compass and whistle.
- **In addition to the above safety equipment**, carry ice picks, a rope and cellular phone. These items could save your life.
- **Always keep your pet on a leash.** If a pet falls through the ice, do not attempt to rescue your pet. Go for help.

What to Do if You Fall Through the Ice

- If you **cannot** get out of the cold water by yourself, take the appropriate actions to extend your survival time while waiting to be rescued.
- **Stay calm.** Do not attempt to swim; swimming will cause our body to lose heat much faster than if you stay as still as possible.
- **Use a whistle to attract help.** **Act slowly and deliberately to conserve heat** and move slowly back to where you entered the water. Expect a progressive decrease in your strength and ability to move. Make the harder moves to attempt to get out of the beginning while you can.
- **If you are wearing a snowmobile helmet and your face is in the water**, remove the helmet as quickly as possible because it can fill with water and cause you to drown. Hold onto it to keep afloat.
- **Once on the ice, try to push yourself forward on your stomach** or roll on your side to keep the weight distributed over a greater surface area. Do not stand up until you have moved onto the ground or an area of solid ice.

If you would like more information on ice safety, contact the Red Cliff Wardens at 715-779-3732.

ATV SAFETY TIPS AND LAWS ATV USERS SHOULD KNOW

An ATV is **NOT** a Toy

An All-Terrain Vehicle (ATV) is a powerful, motorized vehicle. It can weigh up to 600 lbs. and reach speeds of more than 60 mph. Even the best drivers often lose control of their ATV. A collision or a vehicle rollover can happen quickly. Before allowing any young person on an ATV, think twice...because you only live once.

Who is at risk?

The highest risk age group by far is males under the age of 16. Often these youngsters are riding without protective equipment and with more than one person on the ATV. Risk taking and goofing around while riding is common. Young people represent nearly 40% of all ATV-related injuries and deaths.

Why are young people injured so often?

- No helmet use
- Carrying one or more passengers
- Lack of mature judgment
- Lack of adequate strength and coordination
- ATV too big for their size/age

Safety Tips for All ATV Riders

1. Do not carry passengers. ATVs are designed for one person.
2. Wear a helmet with eye protection.
3. Wear non-skid, closed toe shoes.
4. Wear long pants and a long-sleeve shirt.
5. Never use a 3-wheeler. They are unsafe and no longer manufactured.
6. Attend an ATV driver's safety course.



What is the LAW?

- ATV use is permitted on all roads within reservation boundaries and within the Township of Russell except State Highway 13. State Highway 13 is closed to ATV and snowmobile use **ALWAYS**.
- Children under the age of 12 are **NOT** permitted to operate ATV's on the roadway unless it is for agricultural purposes and they are under direct supervision of an adult.
- Youth ages 12-16 may operate ATV's on the roadway only if they have completed an approved ATV safety course. Youth must carry proof of their completion with them at all times while operating.
- If you are under the age of 18 you must wear a helmet and eye protection at all times.
- You must obey all traffic laws plus additional restrictions like lowering your speed to 10mph or less in residential areas. You also must have functioning headlamp and tail lamp illuminated at all times, even during daytime hours.
- Your ATV must be registered. This service is provided by the Red Cliff Wardens at no cost.
- This is just a summary; additional restrictions on ATV use may apply. If you would like more information on ATV regulations, registration or information on how to obtain ATV safety certification, please call the Red Cliff Wardens at 715-779-3732.



ENFORCEMENT!

Red Cliff Law Enforcement will be stepping up enforcement of ATV regulations. If you are found to be in violation you will be cited. It is also important to note any parent/guardian can be held liable for permitting any minor to use an ATV in violation of Red Cliff Code.





**SPRING TIME IS HERE AND WE
WILL BE WAKING UP SOON!**

REMEMBER...



DUMPSTERS, HOUSEHOLD GARBAGE AND BIRD FEEDERS WILL ATTRACT BEARS. TO AVOID ATTRACTING UNWANTED WILDLIFE CONSIDER TAKING DOWN BIRD FEEDERS IN THE SPRING AND EARLY SUMMER MONTHS. GO TO THE DUMP OFTEN. DO NOT STORE HOUSEHOLD GARBAGE OUTSIDE. IF YOU HAVE A DUMPSTER, **A BEAR WILL FIND IT**. MAKE SURE YOU SECURE THE LID USING BOARDS, STRAPS OR OTHER MEANS. CONSIDER REMOVING OR NOT USING YOUR DUMPSTER IN THE SPRING AND EARLY SUMMER OR UPDGRADING TO A BEAR PROOF DUMPSTER WITH A METAL LID. HOMEOWNERS/RENTERS WILL BE RESPONSIBLE FOR CLEANING UP ANY LITTER CAUSED BY NUISANCE WILDLIFE. IF YOU HAVE QUESTIONS OR WOULD LIKE MORE TIPS ON HOW TO AVOID CONTACT WITH NUISANCE WILDLIFE. CONTACT THE RED CLIFF WARDENS AT 715-779-3732.

Frog Bay Tribal National Park



A Panoramic view from the beach located at Frog Bay Tribal National Park. The Ice is still holding on strong, but the days are getting longer and brighter. Now that spring is in the air why not go out and enjoy it with a hike at FBTNP located in our very own backyard? Admission is free and the trails are beginning to thaw as spring commences.

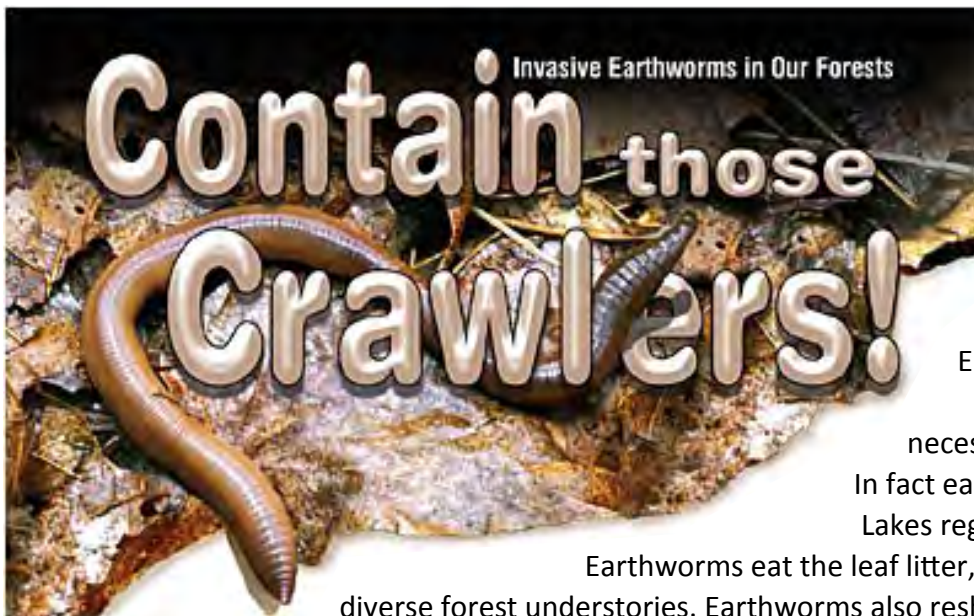


Every trip at FBTNP brings fascinating and new discoveries. For example this fungus covered log along the Beach Trail. On my most recent expedition at FBTNP I came across this low lying bird's nest right along the trail. As the spring thaw disappears, the nature and wildlife are coming out in full force.



Please stay on the trails which are marked with these little blue indicators throughout the trail loop. I hope that you can enjoy this scenic beauty as I have. Please enjoy.

*Written by:
Michael Defoe*



Earthworms, including night crawlers, are NOT NATIVE to Wisconsin.

All 16 species of earthworm found in the Great Lakes region were introduced here from Europe or Asia. Contrary to popular belief, earthworms are not a necessary part of building healthy soils. In fact earthworms negatively impact Great Lakes region soils, woodlands, and wildlife.

Earthworms eat the leaf litter, fungus, and bacteria that support diverse forest understories. Earthworms also reshape soil composition in ways that make it harder for seeds to germinate. Over time, the presence of earthworms depletes forest diversity.



Above on the left you can see a healthy understory of maple saplings. The image on the right shows what happens when earthworms are introduced to an area. Sugar maple seedlings have an especially hard time getting established in an understory that has been transformed by earthworm activity. (Photos courtesy of Great Lakes Worm Watch)

Steps you can take to SLOW THE SPREAD:

- ◇ **DO NOT dump your bait in the woods.**
- ◇ **Dispose of unwanted bait in the trash.**
- ◇ **Tell others what you know about invasive worms.**

On their own, earthworms disperse very slowly (less than 1/2 mile every 100 years). Humans are largely responsible for the spread of earthworms. This means we can all help slow the spread and in turn protect the diversity of our forests.



Left: The hermit thrush is a common but elusive bird of Great Lakes region forests. Although you may have never seen a hermit thrush, chances are you have heard its flute-like song. Studies conducted by the University of Minnesota point to links between invasive worm infestations and population declines of hermit thrushes and other ground nesting birds.

Written by: Beth Raboin

Phragmites australis aka Common Reed Grass

Phragmites australis, or European common reed grass, is a widespread plant that can be found worldwide. The plant can grow up to 15 feet tall and has an expansive rhizome (up to 80% of the plant is underground), or root system. It spreads by seeds, rhizome, and rhizome fragmentation (Pictured below). It has the potential to take over an area and wipe out all other native vegetation by creating “monoculture stands”.



There is, however, a native form of phragmites, subspecies *americanus*, which served a cultural importance to some Southwestern Native American tribes. The Anasazi Indians in Arizona used the plant to make arrow shafts, musical instruments, woven mats, ceremonial objects and other items as well. Europeans also commercially grow phragmites for thatching, fodder for livestock and cellulose production.



The invasive form of phragmites is of special concern to the Red Cliff Treaty Natural Resources Division because it is used for fecal sludge dewatering management at the Red Cliff Waste Water Treatment Plant (WWTP), a system called reed bed technology.

If you have seen this plant, other than at the WWTP, please contact the Red Cliff Treaty Natural Resources Office at 715-779-3750.

*Article Written
By:
Michael Defoe*

A Great ReSource!

A resale store for everyone and everything.

by: Beth Raboin

Whether you're cleaning out the clutter accumulated over a long winter or you're starting a spring project, the ReSource store in Washburn is a place worth checking out. ReSource is a non-profit business with the goal to give reusable materials a new life. Through donations, ReSource stocks a huge variety of new and used building and household materials to sell at great deals. Donating your used goods to ReSource saves you money at the waste transfer station, is tax deductible, and helps keep excess waste out of our landfills. It's also true that one man's trash is another man's treasure. Having worked as a volunteer at ReSource throughout this past winter, I can attest to all the steals and deals and funky, fun, and useful items that pass through the store each and every day.

Want to make a donation?

Resource accepts new and used materials including but not limited to:

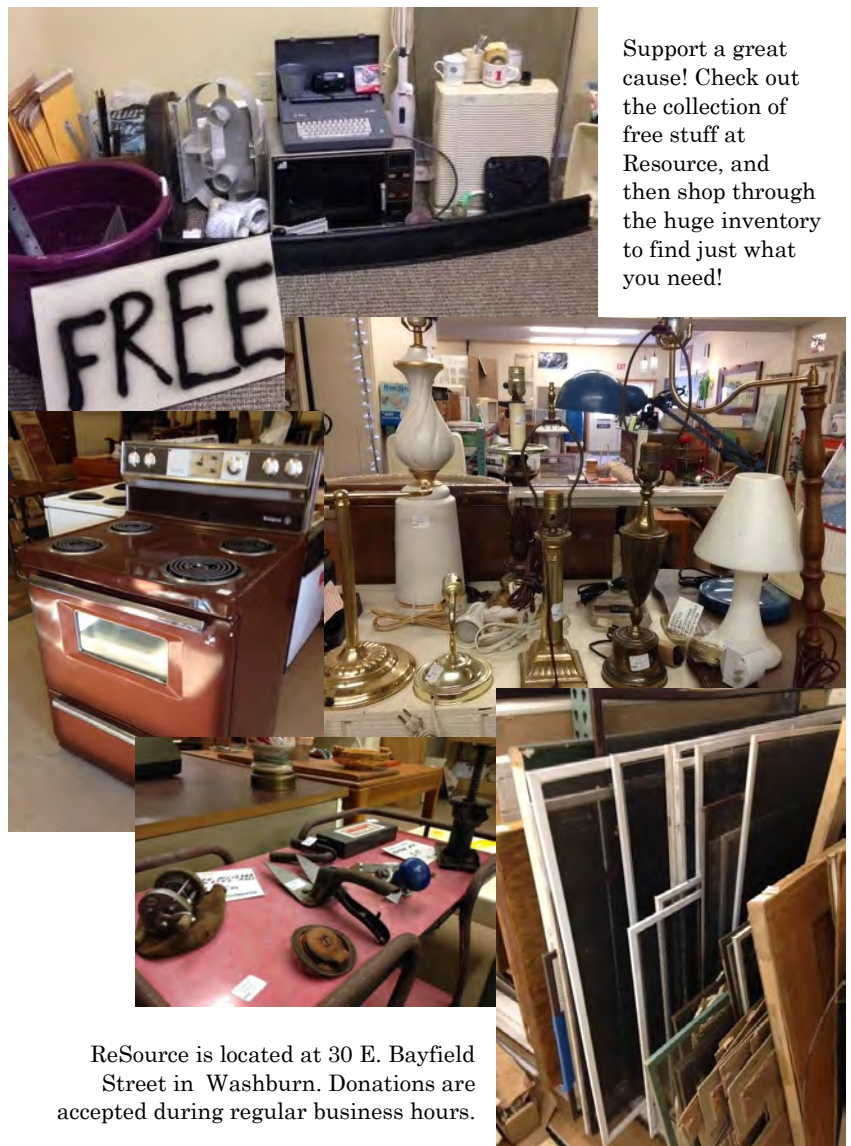
- Appliances (ovens, microwaves, refrigerators, etc.)
- Tools (hand tools and power tools)
- Building materials (lumber, drywall, windows, doors, hardware etc.)
- Electrical components (i.e. outlets, switches, wiring, etc.)
- Plumbing (including toilets, sinks, bathtubs, faucets, piping, etc.)
- Furniture (indoor and outdoor)
- Household items (kitchenware, light fixtures, etc.)

What Resource can't accept:

TV's, dehumidifiers, paint, mattresses, air conditioners, used shower doors, clothing. If you have a question about donations you can call ReSource at (715) 373-2003.

Thrift Shopping!
Giving to your neighbors!

Saving money and the Environment!!!



Support a great cause! Check out the collection of free stuff at Resource, and then shop through the huge inventory to find just what you need!

ReSource is located at 30 E. Bayfield Street in Washburn. Donations are accepted during regular business hours.



RED CLIFF BAND OF LAKE SUPERIOR CHIPPEWA

Treaty Natural Resource Division



Fisheries

715-779-3750

Environmental

715-779-3650

Natural Resources

715-779-3795

Transfer Station

715-779-0171

Conservation Wardens

715-779-3732