

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 1

Spring 2014



Ziigwan (Spring) 2014

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...and more!



From Sap To Syrup—Sugarbush Camps are busy everywhere

FROG BAY TRIBAL NATIONAL PARK

LOGO CONTEST

CALLING ALL ARTISTS AND PHOTOGRAPHERS!

We are looking for local artists and photographers to help us create the Frog Bay Tribal National Park logo. We have received a couple of entries over the last year, but we really would like to see more local artists step forward!

GRAND PRIZE for the winning logo design will be \$100 gift certificate. Plus your art will symbolize Frog Bay for years to come!

DEADLINE for submissions is June 1st 2014. Please bring your submissions to the Red Cliff Fish Hatchery or email.

CONTACTS for the contest are Bryan Bainbridge or Chad Abel. They can be reached at 779-3750. Email them at chad.abel@redcliff-nsn.gov or bryan.bainbridge@redcliff-nsn.gov.

Employee of the Month

By Chad Abel

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.



January Employee of the Month – Fran Cadotte, Hatchery Technician

We thank Francis for his many years of service in the Hatchery. He brings his humor and easy-going nature to work with him every day, and Fran is willing to take on any assignment at the drop of a hat. Congratulations Francis on being named January's Employee of the Month!



February Employee of the Month – Lucas Cadotte, Warden

Lucas brings a unique skillset to his position as a Red Cliff Warden. His previous law enforcement experience proves beneficial when interpreting the language of codes and assessing potential violations. He also has been a major contributor of articles to our quarterly newsletter; always much appreciated! Thank you Lucas for being one of a great two man team in our Conservation Department!



March Employee of the Month – Tom Gary Jr., Fisheries Technician

Tom is a great fit in the Fisheries Department. I believe there are very few people who could ever replace Tom. This winter he has been on the ice monitoring legged nets, surviving in sub-zero temperatures throughout the week and even on the weekends. He has not missed a legged net lift this entire fishing season, and his data collection has been spot on. Thank you Tom for taking ownership of the legged net study and making it a success!

Pine Marten (*Martes americana*) Monitoring



Todd Norwood and Bayfield High School students and staff prepare for a dog sledding/snowmobiling adventure. Due to access issues dog sleds were utilized to check trail cameras for images, add lure, and bait trail cameras.

By: Mike Defoe and Todd Norwood

During this frozen and snowy winter the Treaty Natural Resources Forestry and Wildlife Department has been conducting some very interesting research on pine marten in conjunction with Bayfield High School students. Our staff have identified and caught images of pine marten out in the Eagle Bay area.

Currently we are trying to determine the population source of pine marten, because they are a state listed endangered species. By utilizing hair snares, trail cameras, and live traps we also hope to determine if the Reservation has breeding pairs of this animal. A lure called “gusto” is applied at each site to help draw in pine marten with the strong pungent scent of the lure. In addition, cameras are then baited with a meat source (preferably beaver meat when available).

This winter was tricky for monitoring due to heavy snow fall and extremely cold temperatures. We attempted to check cameras on a weekly basis and coordinate such events with the Bayfield High School. So far this winter we have only captured one image, which is far less than last year’s totals.

We would like to thank George Newago and Danny Blake for providing the dog sled teams and trail maintenance to check trail cameras. We would also like to thank Rick Erickson and Tony Thier for helping with the project.



A pine marten captured by one of our trail cameras.



Mike Defoe and Russell installing a trail camera at one of the sites at Eagle Bay.



Todd looking like one of the dogs after running the sled.



George Newago leading the way while we prepare to snowshoe into the woods to check the trail camera.

Nature's Notebook

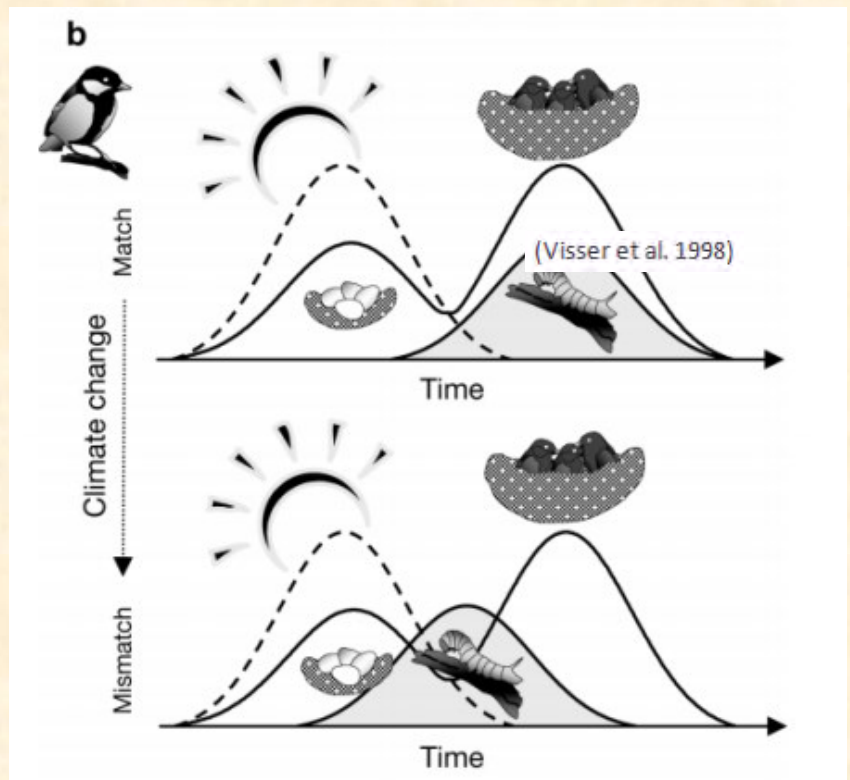
by Trevor Wilk

Phenology is nature's calendar, the study that measures the timing of life cycle events in all living things—when a robin builds a nest, when apple trees bloom, and when trees leaf out in the spring. Phenology highlights the complexity of our earth; in fact, phenology affects nearly all aspects of the environment, including the abundance, distribution, and diversity of organisms, ecosystem services, and food webs. Since plants and animals don't have access to a calendar they must take their cues from the changing seasons. Trees bud out in the spring and then drop their leaves in the fall because of increasing and decreasing temperatures and day length. Since phenological events generally occur in consistent order, with the arrival of one event predicting the imminence of another, phenological data can also be used as a valuable predictive tool in forestry, agriculture, and fisheries (Caprio 1966; Lieth 1974).

But phenology isn't as simple as a bird migrating north at a certain time, because phenology is about interconnectedness. For example, many birds time their nesting so that eggs hatch when insects are available to feed nestlings; in turn, insect emergence is often synchronized with leafing out in their host plants. When species have a connection, and time their relationship right, it's called a phenological match. Many of these relationships have been fine tuned over a long period of time during which our climate was fairly steady. But now our climate is changing.

While day length is considered static over a period of time (from year to year), both temperature and rainfall are highly variable and are changing drastically due to climate change. Spring temperatures in northwest Wisconsin have increased between 2.5-3.5 °F since 1950 and are expected to increase 5.5 °F between 1980 and 2050 (WICCI). We know that from 1950 to 2006, Wisconsin as a whole has become wetter, with an increase in annual precipitation of 3.1 inches (WICCI). Unfortunately we are receiving more of our precipitation during intense, extreme events leaving other parts of the year in drought conditions. So what happens when the climate changes faster than plants and animals can adapt and what potential affect does changing temperature and precipitation have on the phenology of plants and animals?

When events are timed right it's a match but when the timing is off it's called a phenological mismatch. While some phenological events depend on day-length triggers, such as many plants' flowering time, their pollinators may migrate based on seasonal temperature. This example



highlights that a slight shift in temperature in one area can create the problem of flowers not being pollinated while at the same time a pollinator might not have any food when they arrive at their destination or when they emerge from hibernation. Another example, this one from the Rocky Mountain Biological Laboratory shows that a 1.4-degree rise in temperature has resulted in marmots emerging earlier from hibernation, but during this same period (1975-1999) snowmelt and plant flowering remained unchanged, resulting in a 23-day mismatch between emergence of marmots and their food plants.

Humans too use phenology in our day to day lives. Farmers and gardeners need to know when to plant to avoid frosts, and they need to know the schedule of plant and insect development to know when to spend time picking potato beetles or tomato hornworms off of their potato and tomato plants. What if humans didn't have the ability to observe our surroundings differently than animals? We might end up trying to plant carrot seeds into a snow covered garden because of a mid-May snow storm or we might spend fruitless hours not catching fish in a stream because the fish haven't started running yet.

Phenology offers land stewards and individuals a unique way to connect with and learn about the plants and animals that we share our land with. Do you know of any phenological cues for our area? Do spring showers bring May flowers?

About the Author — New employee Trevor Wilk

Trevor Wilk began this winter and will be serving as a Natural Resources Specialist with a focus on climate change. Trevor will be helping create a climate change adaptation plan which includes prioritizing key areas of concern, completing vulnerability assessments, and determining strategic ways to adapt. He'll also be helping out with all the various projects that happen in the division. Trevor attended the University of Minnesota in the Twin Cities and has a bachelor's degree in policy and law in natural resources.

In his free time Trevor enjoyed fishing, canoeing and growing fruit and vegetables but as a soon to be father he'll mainly be spending his free time hanging out with his little girl. If you have any questions or comments about climate change please reach out to him: 715-779-3795



Spear Fishing

Springtime and warmer temperatures means spear fishing activities will soon begin. Spear fishing begins after the ice leaves inland lakes usually around mid-April. Below is a brief history of spear fishing and a summary of spear fishing regulations.

Ceded Territory Spearing Regulations and History

The year two-thousand and fourteen will mark the thirtieth consecutive spring that spear fishing was conducted by the Chippewa tribes in the off-reservation waters of northern Wisconsin. An average of 450 tribal members from Lac Courte Oreilles, Lac du Flambeau, Mole Lake, Bad River, St. Croix and Red Cliff spear each year.

Spearing has been a tribal tradition for many tribes but the legality of off-reservation spearing came into the public beginning in 1973 when the Lac Courte Oreilles Band of Chippewa filed suit against the State of Wisconsin. The tribe claimed that the States laws conflicted with tribal hunting, fishing, and gathering activities guaranteed in the Treaties of 1837 and 1842. The suit was dismissed by the Federal District Court initially but in the Seventh Circuit Court of Appeals it was reversed. The State of Wisconsin petitioned the United States Supreme Court to review the Seventh Circuit Courts decision but the petition was denied. On August 21, 1987, Federal Judge Barbara Crab reaffirmed the standard principles brought about by other treaty rights cases throughout the country. She held that the State may regulate in the interest of conservation and that such regulations are necessary, however, the tribes may enact a system of regulations resulting from another decision on May 9, 1990. Throughout this whole process there were many protests against treaty rights with the worst protests happening while tribal members exercised their rights.



Photo Courtesy of GLIFWC.org

Basic Spearfishing Regulations:

No member shall spear without first possessing a valid spearing permit issued by GLIFWC and a valid tribal identification card.



Photo Courtesy of GLIFWC.org

Equipment Regulations:

Spear must have: (a) a minimum of three barbed tines which are a minimum of 4-1/2" inches long; (b) each tine having a barb extending perpendicular which is greater than 1/8" inch. NOTE: While spearfishing (open water) no member shall possess any other harvesting devices, other than a spear.

Bag Limits; Possession Limits:

No member while fishing off-reservation may have in their possession fish in excess of the bag or possession limit.

- Walleye-(by permit only) – a) one fish may be any size b) one fish between 20" – 24" c) all other up to 20"
- Muskellunge-(bag limit by permit only) – a) first fish may be any size b) after first fish, at least ½ of catch must be at least 32"
- Northern Pike - bag limit – 10 per person/day

Spear Fishing Cont'd

- Largemouth and Smallmouth Bass - bag limit – 10 per person/day

Miscellaneous Regulations:

- Battery cover: No member shall operate any motorboat equipped with a storage battery in the waters of the ceded territory unless the battery is: a) provided with suitable supports and secured against shifting with the motion of the boat b) equipped with a nonconductive shielding means to prevent accidental shorting of battery terminals
- Personal flotation devices: No member shall operate or use a boat unless one PFD is on board for each person and that PFD is in serviceable condition
- Lighting Equipment: All boats are required to have lighting equipment and be on from sunset to sunrise: a) one lamp aft (rear) showing a bright white light all around the horizon (Must be visible for 2 miles on a dark clear night) b) one combined lamp in the fore part (front) of the motorboat and lower than the white light aft, showing green to starboard (left) and red to port (right) and so fixed that each side of the combined lamp throws a light from directly ahead to 2 points abaft the beam on its retrospective side. (Must be visible for one mile on a dark clear night)
 - Exception for motorboat operated for spearing purposes: The lighting requirements shall not apply to a member operating or using a motorboat while actively fishing with a spear provided that the member is using a light in the front part of the boat as part of such fishing and is operating the boat at a slow-no wake speed
- Assist by non-members: Those persons who may assist a member: member's spouse, forebears (includes only parents and grandparents), children, grandchildren and siblings (includes person who have one or both parents in common). NOTE: assist is limited to operation of spearing boat only!
- Waste of Natural Resources: No member shall unreasonably waste, injure or destroy or impair natural resources while engaging in the exercise of off-reservation treaty rights
- Throwing refuse in waters: No member shall deposit, place or throw into any off-reservation waters any cans, bottles, debris, refuse or any other solid waste materials
- Sharing of tags/permits: No member shall lend, share, give, sell, barter or trade, or offer to lend, share, give, sell, barter or trade to any person any identification document, permit or tag issued by the tribe

MAKE SURE TO CHECK FISH NUMBERS DAILY BEFORE SPEARING BY CALLING THE RED CLIFF WARDENS AFTER 12PM THE DAY YOU ARE GOING TO SPEAR

If you have any questions about spear fishing or any other regulations related to treaty protected harvest activities you can visit the Great Lake Indian Fish and Wildlife Commission website at GLIFWC.org or contact the Red Cliff Wardens at 715-779-3732.

Indoor Air Quality

Indoor Air Quality (IAQ) is a term which refers to air quality in and around buildings and structures, especially as it relates to the health and comfort levels of the occupants. IAQ can be affected by gasses (including carbon monoxide, radon, and volatile organic compounds), particulates, microbial contaminants (mold, bacteria) or any other mass or stressors that can induce adverse health conditions. Source control, filtration, and the use of ventilation to dilute contaminants are the primary methods for improving air quality in buildings. EPA has guidelines and standards for the home. OSHA has workplace rules and regulations

IAQ Assessment is an evaluation of your home or office air quality. Many things can affect IAQ in your home. Monitoring of gasses (combustion, VOCs), inspection of the condition of the building (roofing, insulation, foundation), particulates (dust, mold spore), mechanicals (ventilation, furnace), even the season of the year (winter vs. summer). All these things combine to impact the environmental health of your home or office. Elderly, the very young, and people with health issues such as asthma or allergies are most likely to be negatively affected.

Red Cliff IAQ Program funded by EPA Region 5 Air and Radiation Division (ARD) has available free IAQ assessments to community members. The program has inspected many home and offices both public and private. Typical problems encountered in homes are leaking roofs and pipes. Left untreated this quickly turns to mold and rot. Other housing problems include a very preventable issue of using ventilation fans. New homes are so energy efficient and air tight that they must have moisture in the home vented out or heavy condensation occurs. A family can produce gallons of moisture per day by cooking, bathing, and even breathing. Imagine for a moment, that you spill a gallon of water in your house, would you clean it up? Of course you would. But by not using your ventilation fans, you are not cleaning up all those gallons of water in your house every day. Ventilation fans are not just for venting odors, they perform a vital function in your home. By venting moisture you are preventing mold, it is very easy to turn on a vent. Sometimes assessments will uncover other problems or dangers such as trip and fall hazards, not having working smoke and carbon monoxide alarms, no fire extinguishers, pests, energy wasting. Red Cliff IAQ Program can do these inspections for free or there are many other resources available for the Do It Yourselfer. EPA, HUD, DOE, NEHA, all have printable, very simple and easy to understand Healthy Homes Maintenance checklists.

Red Cliff Air Program

Mike Balber
(715) 779-3650

Lake Superior Barrel Project Update

By Gary Defoe Jr.

March 12th Event

Recently, we had our Lake Superior Barrels Gathering-Celebration on March 12th, 2014. We had a very good turnout, with roughly 40 people present. We presented to the audience what kind of struggles we have been having within the past few months with government agencies along with a Powerpoint presentation. We will continue to seek funds, and hopefully in the future we can be successful in raising more barrels, or even all of them in the near future. No raising of barrels for 2014.

25 Barrels raised!

Presently, we have raised 25 barrels out of Lake Superior. Analysis of the barrels show that there is no immediate concern regarding the safety of human and fish consumption. A lot of unanswered questions still remain. So, if you are interested in learning more, stop by the Tribal EPA building or call 715-779-3650 and I will be more than willing to answer questions the best I can.



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.

2014 SUMMER INTERN PROGRAM

ACCEPTING APPLICATIONS SOON!

Are you a Red Cliff teenager looking for job opportunities this summer? Are you interested in the outdoors and the environment? Red Cliff's summer intern program might be right for you!

The Treaty Natural Resource Division at Red Cliff is planning to hire 3 young adults for an internship in our hatchery office. Now in its 3rd year, interns get involved in all the work we do in our Division: Feeding fish at the hatchery, building trails at Frog Bay, taking ride-alongs with our Wardens, collecting water samples, catching fish on our research boat, and much, much more!

In addition, our interns spend time with the Forest Service and DNR to learn and get involved in projects they have at their offices. The intern program is a fun way to make money over the summer. It's also a good introduction to future careers in Natural Resources you might be interested in.

The Skinny: Applicants should be from 14 – 19 years old OR be currently enrolled in college. Pay is \$8/hour for crew members (2 positions) and \$10/hour for the crew leader (1 position). The internship lasts 8 – 10 weeks, and you will work 32 – 40 hours each week. **WORK AT TIMES CAN BE PHYSICALLY DEMANDING.** No previous experience is required.

To Apply: Internship announcements will be posted around the community and on the Red Cliff website beginning in April. You must fill out a Red Cliff job application and write a letter stating why you



Natural Resources Conservation Service and Forest Service Partnership Brings Opportunities to Red Cliff Tribal Members.

The USDA Natural Resources Conservation Service (NRCS) and the US Forest Service recently received special funding to improve water quality and wildlife habitat on lands in the Lake Superior watershed in Wisconsin. Red Cliff and Bad River Tribal Members are eligible for enhanced incentive rates for the NRCS's Environmental Quality Incentives Program and Conservation Stewardship Program.



Forest Management. Tribal Members, if you are interested in actively managing your forestland, financial assistance is available to hiring a forester to work with you on a forest management plan. For Tribal Members that have a plan in place, there is financial assistance available to help plan and implement many nonharvest aspects of their plan.



Wildlife Management. For Tribal Members interested in enhancing wildlife habitat financial assistance is available for tree and shrub planting, habitat development, brush management and streambank and shoreline protection.



Food Production. For Tribal Members who are agricultural producers financial assistance is available for Seasonal High Tunnels, also known as Hoop Houses. For Tribal livestock producers, financial assistance is available to develop managed grazing systems including fencing and watering systems. Technical and financial assistance is also available to heal erosion problems.

Please call Gary Haughn at 715-682-8117 if you would like us to come out and visit you to talk more about these opportunities.

USDA is an equal opportunity provider and employer.

Traditional Ecological Knowledge (also known as TEK):

What it is and Why it's Important



Pictured: Labrador Tea

Traditional Ecological Knowledge (also known as TEK) is the knowledge, practice, and belief held by those with a direct dependence upon local resources. It exists wherever people are materially and more important, spiritually, dependent upon their landscape. The knowledge directly relates to the relationship of living beings to one another and the physical environment, and is handed down through generations by cultural transmission. The existence of TEK is not unique to just Native American culture. In fact, it is found throughout the world amongst various groups.



With TEK, the observers tend to be those that directly utilize the resources, such as hunters & gatherers. Their success of harvest directly correlates to the quality and reliability of their ecological observations. Their observations tend to be qualitative and are for a single locale over a long period of time. Also, the transfer of TEK into knowledge happens within a different context and consists of 'ecological data' but more importantly, spiri-

tuality, values, normative rules and cultural practices.

Western-science can be valuable in restoration efforts but it should be remembered that it is not the only option, nor the best. Unfortunately, majority of scientific professionals hold little understanding of the value of TEK or its cultural content. They instead solely rely on scientific ecological knowledge (referred to as SEK). Scientific observations are often made by a group of pro-



Left: unknown, Right: Ron Geyshick (deceased); formerly of Lac La Croix, Ontario, Canada
Agawa Rock, Lake Superior Provincial Park, Ontario

"TEK" page 2

professionals and tend to be more quantitative, representing simultaneous observations from a vast range of sites. The downfall of SEK is that it frequently lacks the long term perspective. In addition, the science is conducted in an academic culture where nature is viewed only objectively. In TEK, nature is the subject, rather than an object as it is in SEK.

TEK combines both biological insights and a cultural framework for solutions to environmental problems, while incorporating human values. It has been proven to provide correct and dependable species information which has greatly aided natural resource management.

Lastly, TEK may not always give us tangible data, but sometimes it is not for us to have data to grasp, nor interpret. At times we simply have to accept it is our role to protect.

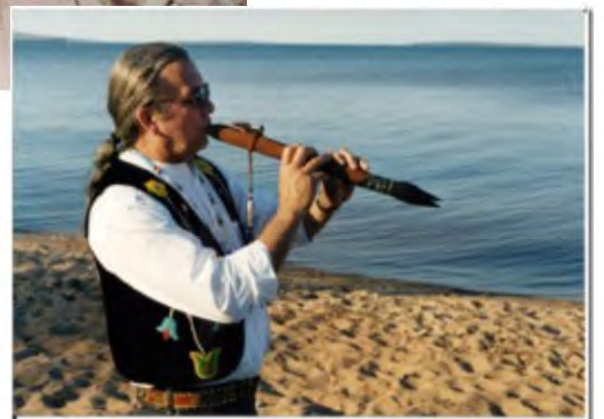


Look for future articles covering "TEK" in our Red Cliff Tribe Treaty Natural Resource Division Quarterly Newsletters!!



izhitwaawin
(culture)

gikendaasowin
(knowledge)



Tribal Historic Preservation Office

Sacred Places, Protected Areas and Cultural Sites: Cultural Resource Management

The lands managed by the Tribe reflect the extremes in size and resource types of our region and its different environments. Although disparate, sites are united through their inter-related purposes and resources and cumulatively, express a sense of our tribal heritage and community identity. This relationship expands much further with the inclusion of sites within the Ceded Territories, the variety of resource types and shared concerns with other tribes. These special lands, spaces and sites while not comprehensively cataloged are well known through existing oral histories and historical documents. However, increasingly, the range of both internal and external threats facing our historic sites and sacred grounds are substantial as tribes struggle with mining issues and treaty rights & resources, and limited tribal funding for needed management systems.

The range of threats tribes face, both internal and external is substantial and a real plan would also include the ideas of promoting a stewardship ethic, including reverence for the earth, sustainable communities, preservation of historical resources and conservation of natural areas. It is better defined as a Cultural Resource Management (CRM) plan.

Ideally a first step in designing a CRM land management system would be to have a vision that works effectively for everyone; plants, animals, our ancestors, and generations to come while contributing to the preservation of biological diversity. The vision becomes a challenge since the areas of our interest is beyond the reach of any one tribal agency or department, especially one that lacks jurisdiction or responsibility. Indeed, the vision issue becomes critical if cultural resources are not adequately addressed as a part of the vision and process and an identified outcome of development projects. So it becomes apparent that we are not likely to succeed unless we can work cooperatively in combination with lands managed by others.

“Cultural Resource Management” planning must be improved and expanded as part of the tribal vision. A key action for addressing these special places is to distinguish “Cultural Resource Management” from the current umbrella of Natural Resource Management. The current Tribal Plans include Land Use Plan; Forestry Plan; Recreational Plan; Housing Plan; Historic Preservation Plan and the Integrated Resource Management Plan (IRMP) just to name a few. But they all share in defining the future shape of tribal lands. So does CRM.

CRM is the management both of Historic / Cultural Resources; and of effects on them, which may result from land use development and other activities of the contemporary world. Lacking a fully operational system or management plan currently, our intent is to begin to outline some preliminary ideas about how to approach defining the future shape of tribal lands and their resource management which includes both historical and cultural goals in land use planning, development and potential impacts. Initially these efforts will be focused on tribal lands with properties determined to be historically or culturally significant to the Tribe.

Tribal lands identified as having historic, traditional or cultural significance include Raspberry Bay Historical Site/ Eagle Bay Preserve / Wolf Camp Preserve / Ishpeming Akiin Grounds / Miskqwaabiikong Aki Pow Wow Grounds and possibly the Frog Bay Tribal National Park. These lands specifically are designated as environmentally sensitive and/or tribally preserved grounds, and are notable in many respects as some locations are only for tribal members while others are open to the general public as well. There may be others.



Sacred Places, Protected Areas and Cultural Sites: **Traditional Cultural Property Status**

Another vision challenge is that of maintaining cultural, historical and ecological integrity intact in landscapes recognized as having significant properties. Protecting and preserving the natural processes and the historic settings requires engagement with a host of other entities with sometimes conflicting missions and are not motivated by a concern of our heritage. The scope involved in evaluating and documenting traditional cultural values of sites needing preservation and protection can be vast.

In 2014, the Tribe will be asked to consult on the nomination of Madeline Island as a “Traditional Cultural Property” (TCP) to the National Register of Historic Places (NRHP). The National Register Bulletin No 38 “Guidelines for Evaluating and Documenting Traditional Cultural Values” is the standard benchmark in the nomination process, currently being implemented and documented by the US Army Corps of Engineers.

So we have a Traditional Cultural Properties review for our readers.

What is a TCP? A Traditional Cultural Property (TCP) is a property eligible for the National Register of Historic Places (NRHP) based on its association with the cultural practices, traditions, beliefs, lifeways, arts, crafts of social institutions of a living traditional community. ‘TCP’s are rooted in a traditional community’s history and are important in maintaining the continuing cultural identity of the community. The cultural practices or beliefs giving ‘TCP’s significance are in many cases still observed but are not of central importance when associated with ‘TCP’ nomination. The NRHP does not include intangible resources. The TCP must be a physical property or place—a building, site, structure or object.

Define Traditional Cultural Properties

Traditional cultural values are often central to the way a community or group defines itself, and maintaining such values is often vital to maintaining the group's sense of identity and self-respect. Properties to which traditional cultural value is ascribed often take on this kind of vital significance, so that any damage to or infringement upon them is perceived to be deeply offensive to, and even destructive of, the group that values them. As a result, it is extremely important that traditional cultural properties be considered carefully in planning; hence it is important that such properties, when they are eligible for inclusion in the National Register, be nominated to the Register or otherwise identified in inventories for planning purposes.

Traditional cultural properties are often hard to recognize. A traditional ceremonial location may look like merely a mountaintop, a lake, or a stretch of river; a culturally important neighborhood may look like any other aggregation of houses, and an area where culturally important economic or artistic activities have been carried out may look like any other building, field of grass, or piece of forest in the area. As a result, such places may not necessarily come to light through the conduct of archeological, historical, or architectural surveys. The existence and significance of such locations often can be ascertained only through interviews with knowledgeable users of the area, or through other forms of ethnographic research. The subtlety with which the significance of such locations may be expressed makes it easy to ignore them; on the other hand it makes it difficult to distinguish between properties having real significance and those whose putative significance is spurious. As a result, clear guidelines for evaluation of such properties are needed.

What constitutes a ‘traditional’ community? A traditional community is one that has beliefs, customs, and practices that have continued over time, been passed down through the generations, are shared, and help to define the traditions of the community.

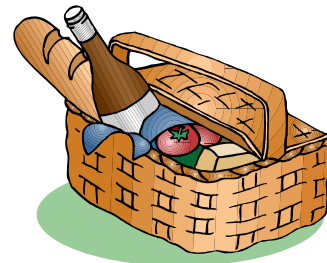
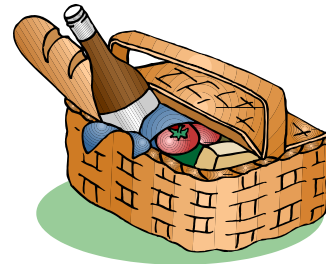
Some examples of TCP’s might include:

- A location associated with the beliefs of a Tribal group about its origins, its cultural history or the nature of the world
- A rural community whose organization, buildings and structure or patterns of land use reflect the cultural traditions valued by its long-term residents
- A location where Tribal religious practitioners have historically gone, and are known to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice



**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.

PAC Process begins to replace the Old Boat Ramp at Raspberry Campground

At the TNR Division Open House in August, we asked the community what should be done with the old boat ramp at Raspberry Campground. Voters were asked to decide between one of three options. Those were:

- 1.) I THINK THE BOAT RAMP SHOULD BE LEFT AS IS.
- 2.) I THINK THE BOAT RAMP SHOULD BE REPLACED WITH A NEW RAMP.
- 3.) I THINK THE BOAT RAMP SHOULD BE TAKEN OUT AND IT SHOULD NOT BE REPLACED.

125 people attended the Open House. The results of those surveyed were:

- 5% Leave the boat ramp as it is
- 85% Replace the boat ramp with a new ramp
- 10% Remove the boat ramp and don't replace it

We have submitted the application for PAC and are now engaged in the review process. Construction would tentatively occur in August this year. **We ask anyone with interest, thoughts or concerns about this project contact the Hatchery office @ 779-3750! We value your comments and look forward to hearing from you!**



The current condition of the boat ramp at Raspberry Campground.

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 Energy**. Water and energy are closely interlinked and interdependent. Energy generation and transmission requires water resources, particularly for hydroelectric, nuclear, and thermal energy sources. About 8% of the global energy generation is used for pumping, treating and transporting water to various consumers. The UN System is working closely with its Member States and other relevant stakeholders to collectively bring its attention to the water-energy 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.



Last summer, 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
- Donate to organizations that strive to increase clean water accessibility
- Participate and comment on the Red Cliff Treaty/ Natural Resources restoration 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
- Place litter in trash containers
- Collect water in rain barrels to water your garden

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, establishing and maintaining 4 dog poop stations, summer hazardous waste collection event, annual spring clean-up event, annual watershed symposium event, drafting the Red Cliff Watershed Management Plan, and continuation of water quality monitoring. Stay tuned 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:

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

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

<http://icangowithout.com/>

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

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

Mining Update

Gogebic Taconite

The WI DNR has submitted a letter of requirements to Gogebic Taconite for the requirements that they will need for their application to mine. Once their application has been submitted, the WI DNR has a deadline of 420 days to either approve or deny their application. More clarification of the WI Mining Permitting Process can be found on the Mining Update page on the Red Cliff website.

PolyMet (NorthMet)

The deadline for comment submission of this project was March 13th, 2014. More details on this subject can be found online on the MN DNR website. Red Cliff submitted comments on the subject of wetlands, water flow modelling, land exchange, and the underground mine shaft alternative.

Upcoming events

Check the Red Cliff mining update calendar for information about upcoming events!

Other good resources to stay in the loop include:

- savethewatersedge.com
- The Penoque Hills Education Program (miningimpactcoalition.org)
- “Citizens Concerned about the Penoque Mine” Facebook group.

Red Cliff Spring Clean Up 2014

DATES TO BE DETERMINED IN THE NEAR FUTURE!!

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



Appliances—\$8.00
Appliances w/Freon—\$25.00
Electronic Waste per component—\$5.00
Tires—\$3.00
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.

We encourage the community to pull together and get their spring cleaning done! Please Recycle! There will be large signs and staff to help direct everyone at Transfer Station for proper disposal. 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 date to be determined in the near future. For details on how to volunteer please call our Environmental Dept. at 779-3650.

*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.*



Red Cliff Fish Hatchery

Fish Hatchery Word Find

Can you
find the
terms
listed be-
low?

Solutions on
next page

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

EGGS
FRY
STOCKING

FINGERLING
HATCHERY
TROUT

FISH
SPEARING
WALLEYE

Above is a picture of our first coasters that hatched. There are roughly 5,000 fish that are in this one tank.

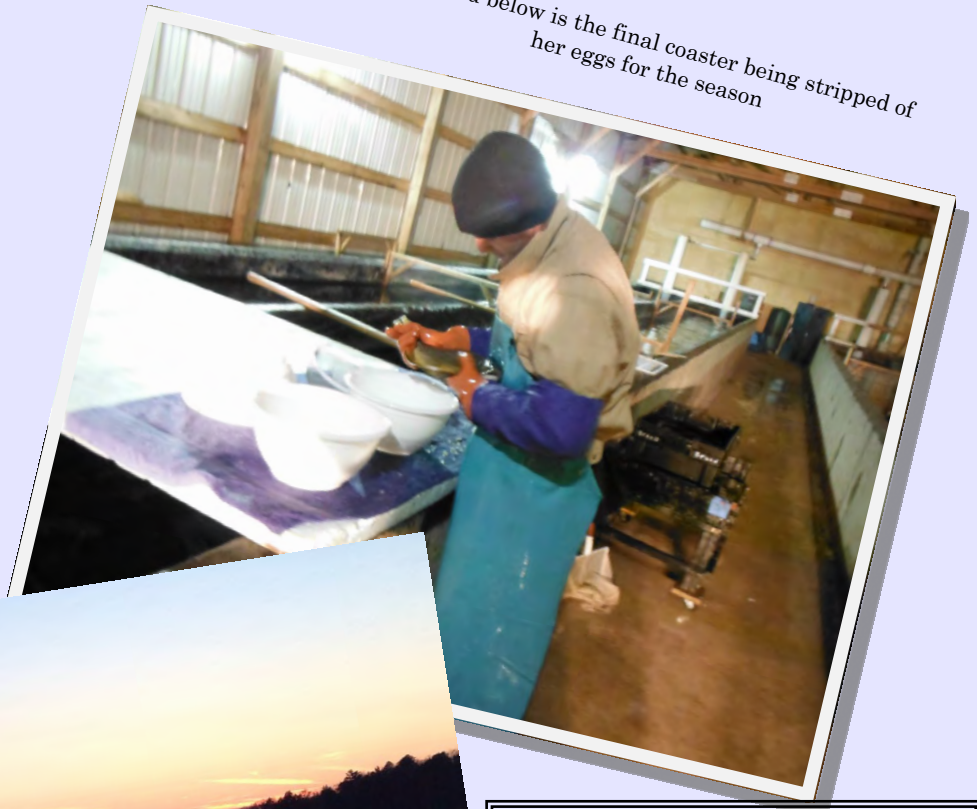


Pictured above is a series of early life stages of our Coaster Brook Trout raised at the RC hatchery. As you can see the first egg is in the very early developmental stage, at 3 weeks old not much is visible. Our second egg is slightly older at 5 weeks and you can see the eyes have begun to develop as well as an outline of the body (the light pink stuff). Our next egg is a more developed egg that is moments away from breaking out of it's membrane, at 10 weeks. We then have a have a picture of something that resembles a fish, called a sac fry. This is what our coasters first look like when they break out of their egg membrane. The orange sac on the bottom of this fish is what they feed on until they are ready to begin feeding on a commercial fish food. The final picture is what the coaster looks like when they are ready to begin feeding on their own. At this time a powder food is sprinkled into the tank and the fish start feeding and growing.

Current Hatchery Updates/ Highlights / News

- ◇ Hatchery finished spawning this years Coaster Brook Trout
- ◇ The layout for our new RAS system has been put in place
- ◇ Preparing for Walleye spearing season to begin
- ◇ Preparing for the release of oldest Broodstock fish to make room for younger class
- ◇ Reminder to spearers that the hatchery needs your help when spearing to get eggs to raise at the hatchery

Pictured below is the final coaster being stripped of her eggs for the season



Pictured above is the Tom Morris Jr. Family heading out on middle Eau Claire for a night of spearing

Solutions to Crossword

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

Stewards of the Land – Sustainable Living

by Mike Balber

“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 fundamentally the application of sustainability to lifestyle choice and decisions. Sustainable design and sustainable development are critical factors to sustainable living. Sustainable design encompasses the development of appropriate technology, which is a staple of sustainable living practices. Sustainable development in turn is the use of these technologies in infrastructure. Sustainable architecture and agriculture are the most common examples of this practice.” -Wikipedia

As “Stewards of the Land,” we should all be taking our part and doing our best in living a sustainable lifestyle. The following are some of the many examples of sustainable practices that Red Cliff has at this time:

- A geothermal heating system has been installed at the new Red Cliff Health Clinic.
- The new lighting on highway 13 uses low energy bulbs.
- The housing authority is building energy efficient homes that incorporate solar heat collectors.
- Many people heat with wood or pellets stoves which is using a renewable resource.
- The community garden uses the efforts of a few to benefit many.

The Red Cliff Tribe and its people recognize the value of sustainable living. Although at this time it is used mainly as an energy or money saving effort. There are many other ways to live sustainably and incorporate these ideas into everyday life. The Red Cliff Environmental Department staff embrace these practices and wish to help others by providing access to resources and knowledge. We support the conservation of natural resources and want to help others live more sustainably.

With the warming of the weather, two of the most common activities will be in full swing. That is gardening and construction or constructing something for your garden.

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. You can start with your home by starting a small window herb garden or garden plot. Work your way out to tree orchards, berries, and finally to the wilderness for harvestable foodstuffs, fish, game and firewood.



Housing- Ideally one should utilize sustainable materials, off-grid power, certified green, zero carbon foot print. Ironically, getting a bank loan to support those efforts is difficult. As an alternative, consider a conventional minimal sized home, orient toward the sun to take advantage of passive solar, insulate well, use energy star rated appliances and heating to conserve energy. Alternative materials could be logs, straw, earth, recycled or reclaimed lumber.



Gardening and housing ideas are only the tip of the iceberg. There are literally volumes of resources available online. 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. There are many in the local community who are very knowledgeable about these practices and what works here. If you are interested in knowing more contact the staff at the environmental office and we can help point you in the right direction.

You can reach Red Cliff Environmental staff at 779-3650.

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
Ojibikan - roots
Shiizhinsan - stems



WAABIGWANIIN - FLOWERS

Protecting our Watersheds

Point Source pollution:

Polluted water from an identifiable source, such as an industry's discharge pipe.

Nonpoint Source pollution:

Polluted runoff, generated as rainfall, snowmelt, or irrigation water runs over or through the ground, picking up pollutants and transporting them to water bodies or groundwater.

Nonpoint source pollution is the primary reason why over 40% of water bodies in the US are considered "impaired" by the EPA for a basic use like fishing or swimming.

Nonpoint source pollution includes:

Chemical and toxins



Motor oil is a common pollutant in developed areas

Nutrients



Algal blooms result from excess nutrients

Sediment



Significant soil erosion can result from poor land management

Pathogens



Dog poop can contain *E. coli* and many other pathogenic organisms—remember to pick it up!

If we want to eliminate these **dispersed, challenging pollutants**, we need to holistically address how land and water is being used, managed, and impacted over broad areas. A **“Watershed Approach”** offers a way to look at the health of particular streams and water bodies as a result of the activity on the surrounding “watershed”, or geographically-defined area of land which drains to the water body. By fostering collaboration with the diverse groups and individuals who live within a watershed, improvements in the water body can be measured against “on the ground” activities. The first step towards effective action in our local watersheds is education, fostering a sense of place, and becoming aware of how small actions in one particular place contribute wider-ranging impacts in the local watershed.

To which watershed does your house belong? How about your school, work, or other important places to you? On the Red Cliff Reservation, the main large watersheds include the **Sand River, Raspberry River, Frog Creek, Red Cliff Creek, and Chicago Creek.**

If you're interested in getting directly involved in protecting and cleaning up your watershed, get in touch with the Water Resources Program – give us a call at 779-3650 or email Alex Strachota, Water Resources Assistant, at alexstrachota@redcliff-nsn.gov. We can help connect you with other like-minded individuals to “adopt a watershed” and be better stewards of the streams and creeks of Red Cliff.

Check out EPA's “Adopt Your Watershed” Program for more information!

<http://water.epa.gov/action/adopt/index.cfm>

ATTENTION TRIBAL CAMPERS AND VALHALLA REC. AREA USERS

If you are a Red Cliff Tribal Member or member of another tribe that has ratified the Tribal/USFS Campground agreement you are eligible for fee-exempt camping and parking at National Forest Campgrounds and Recreation areas (e.g. Valhalla). For your convenience, changes have been made in the way National Forest Camping and Parking permits are issued. Now with one stop at the Wardens Office, you can get everything you need for the entire season.

New for parking passes and camping permits:

- Lifetime parking passes are now being issued.
- No more parking stickers. Parking passes are now displayed from your rearview mirror and can be moved if you decide to switch vehicles.
- You will no longer need to stop and pick up a camping permit every time you want to go camping. You will now be issued a camping permit with a "NAFGA" number which you can use all season long regardless of what National Forest you decide to visit.
- Instructions on how to fill out the Recreation Fee Envelope using your "NAFGA" number are shown below.
- If you are interested in fee-exempt camping within the Apostle Islands National Lakeshore, special rules apply; please contact the wardens for more details.

To obtain your parking passes and a camping permit with your NAFGA number call the Red Cliff Wardens to make an appointment.

Recreation Fee Permit
USDA Forest Service
Detach this permit stub from envelope and display on vehicle dashboard this side up. If camping, attach permit to campsite post ensuring it is clearly visible.

VALID ONLY AT THIS SITE FOR THE DAY(S) PAID BEGINNING:
Purchase Date: Date of registration
No. of Days Paid: Specify number of days registered for site.

IMPORTANT: DETACH BELOW.

Recreation Fee Envelope
USDA Forest Service
TO VALIDATE, COMPLETE THE FOLLOWING
U.S. currency and checks drawn on U.S. banks accepted. Please do not fold bills or checks. Make checks payable to USDA Forest Service.

1. Fill in "tribal permit" here.
2. Indicate number of days. Maximum is 14 days.
3. Fill in date of arrival
4. Enter permit holders vehicle plate; 5. State of plate; & 6. Home zip code
7. Unit # here
10. Enter NAFGA Permit No. Here
11. Specify departure date

After completing, detach permit stub and deposit envelope into box provided.
FS-2300-26a (9-2006)

The Red Cliff Wardens can be reached at 715-779-3732

Traditional Ecological Knowledge (also known as TEK): Challenges of TEK Preservation

TEK



Pictured Below: Weaving of Bull Rush Mats

As Ojibwe people we are connected on many levels to those who walked before us. genetically, historically, emotionally, and spiritually. We carry with us what has happened to our people from years ago while facing similar challenges happening to us today, but in sometimes less transparent forms.



Our ancestors once roamed lands freely for sustenance and survival. They came from a place of living in harmony with the earth to being forced to live with loss and suffering on a journey

to lands that brought more loss and suffering. Creation of invisible boundaries have been imposed on our people. Children were "removed" to boarding schools where most were no longer allowed to be native. Our natural education of survival in the world around us was no longer acceptable. Speaking Ojibwe and carrying out spiritual ways needed to be hidden. Hair, connecting us to the earth, was cut and

ceremonies began being held in secrecy.

These efforts imposed on the way of life for Ojibwe people brought a great deal of loss: language, stories, identity, and a sense of place. It wasn't until 1924 through the Indian Citizenship Act that Native Americans were considered citizens. Regardless, in recent years we still suffered fighting for our rights while being pelted with stones while carrying out our tradi-



Above: Pictograph showing the Petition of "Chippewa" Chiefs. A birch bark version was carried by Ojibwe Chief Buffalo to Washington in 1849 when the tribe petitioned the U.S. to adjust boundaries of the 1842 LaPointe treaty. It was intended as a sort of letter of reference, depicting their authority to speak for the Lake Superior bands.

"TEK" page 2

tions. We would like to think these days are behind us. We would like to think we are coming back to our sense of place with all our efforts of language immersion schools and court cases recognizing our rights.

However, we are still experiencing loss. Today it comes in the form of technology, trying to live in a modern way while walking a traditional life. It comes in the form of our lands being developed. We have very small areas left on our "reservation" to still carry out our ways and yet it is a struggle to protect them. Certain views of how land should be managed—conflicting with how we used to manage it—is being imposed upon us. This in turn will again result in a loss of places to carry



Look for future articles covering "TEK" in our Red Cliff Tribe Treaty Natural Resource Division Quarterly Newsletters!!

out our way of life and teach it to our children.

What can we do to protect who we were, are, and will be tomorrow? Become active community members. Ask, read, listen, and talk. If you feel your areas of traditional ecological knowledge are at risk of change and loss, contact staff with the Treaty Natural Resource Division and express your concerns.

zaagi'idiwin

(love)

manidoowaadizi

(she/he has a spiritual nature)

If you're not sure if your areas of spiritual practice are at risk, ask about them. No one needs to expose specific areas, just general locations.

Remember, as Ojibwe people we have not lost our responsibility to be stewards of our land and we do have a right to our voice. We also have a right to preserve our ways and teach our children. It is up to us to keep our ways alive no matter how hard it can be. Our ancestors have and so can we.

The Climate Change Committee is Seeking New Members!

The Climate Change Committee will be part of the process in completing a **Tribal Climate Change Adaptation Plan**. The plan will create a framework to follow to adapt to and mitigate climate change, be comprehensive and outline specific, achievable actions that can be implemented to minimize the negative impacts of climate change.

One of the first steps in the process will be to prioritize what parts of Red Cliff are most vulnerable to our changing climate. Please consider coming to the meeting to share your thoughts.

Climate Change Committee Meeting

Thursday, April 24th 10:00 a.m. to Noon

@ the Fish Hatchery

If you are interested in serving on the Climate Change Committee, please
contact Tribal Administration & fill out a Committee application
or if you have any questions or comments please contact Trevor Wilk at
trevor.wilk@redcliff-nsn.gov or call 715-779-3795

Lake Superior Co-Management 101: The Lingo of Treaty-based Fishery Management

Assessment: Routine data collection effort where nets of a particular length and mesh size are set at annual monitoring sites during a specific time of year. Assessments are completed by biological staff in Red Cliff's Fisheries Department. Data collected during assessments is used to monitor long-term trends in the fishery and ensure sustainable management. The Fisheries Department lifted 47,500 ft. of gillnet in 4 assessments in 2013.



Big Boat: A commercial “tug” with a mechanical lifter. Red Cliff licenses 14 tribal big boats each year; 10 in Wisconsin waters and 4 in Michigan waters of Lake Superior.



Commercial Monitor: A Fisheries Department staff member who is on-board a licensed big boat while nets are being lifted. The data collected during monitoring is used to calculate CPE.

CPE: *Catch per Effort*, meaning the number of a particular fish species caught per 1,000 feet of net. CPE is calculated with the quota to set effort restrictions for lake trout in Wisconsin waters.

Effort: The amount of net fished by time period, in feet. Effort restrictions are placed on the amount of gillnet that can be set during the fishing season so quotas are not exceeded.

Gang: A length of gillnets tied together, set in the lake, and secured on each end with a buoy.

(Article continued on next page)

Grid Patrol: Routine check of all nets set within a specified grid in the lake. Grid patrols are completed by a Conservation Enforcement Officer via boat patrol during open water or snowmobile during ice cover. A floating buoy is tied to the net by the fisherman so it can be located. Effort tags on the buoy record the fisherman's ID, date set, grid and length of the gang.



Home Use Fishing: Fishing that occurs by tribal members for subsistence purposes on Lake Superior. Tribal members do not need a commercial small or big boat license to home use fish, but they are regulated by gear type and reporting requirements through Red Cliff's Fisheries Department. Subsistence fishing is a complementary component to treaty-protected rights exercised in the commercial fishery.

Lift: The term used when a net is retrieved. Lifts are completed with a mechanical lifter on a big boat. Lifts are completed by hand on a small boat.

Otolith: The fish equivalent of the eardrum, providing the most accurate account of fish age when cross-sections are viewed under an electron microscope. Data on age class composition is important when generating estimates of safe harvest in the SCAA model.

Quota: The amount of a particular species that can be safely harvested. Statistical Catch at Age Model (SCAA) is used to derive sustainable harvest limits of lake trout.

Set: The process of deploying a net. Also refers to the number of days a net "soaks" in the water before being lifted.

Small Boat: A powerboat that meets the qualifications of obtaining a small boat license under Chapter 7 of the Red Cliff Code of Laws. Nets on a small boat are lifted by hand. The Fisheries Department licensed 30 small boat licenses in 2014.

Tag: A plastic ID that must be clipped through the mouth and gill of lake trout, walleye, and other miscellaneous catch so exact harvest numbers are accurately tracked.

Throwback: The term for fish caught in a net and released alive.



Department Numbers

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

