

Summer

2012



BAD RIVER NATURAL RESOURCE

Common Ground

Protecting an International Treasure



The Kakagon and Bad River Sloughs received a Wisconsin Wetland Association (WWA) GEM™ award in July 2009. Becky Abel (former Executive Director of WWA), Rep. Nick Milroy (and his son), Naomi Tillison (BRNRD), and Erv Soulier (Director of BRNRD) celebrate this award in July 2009 in Superior, Wisconsin. Photo by Mike Anderson.

Article By: Naomi Tillison-

The Kakagon and Bad River Sloughs complex was recently named a Ramsar site, a wetland of international importance! The Sloughs provide over 10,000 acres of Lake Superior coastal habitat and contain unique and rare resources, such as vast wild rice beds, spawning habitat for lake sturgeon, and migratory bird habitat.

The Bad River Tribe and the Sloughs have an interwoven relationship that goes back generations. Although the Ramsar designation process is just a small chapter in the ecosystem's story, this designation marks an important milestone for the Sloughs.

For me, the journey of the Ramsar designation started on a sunny day back in July 2009. Our Natural Resources Director, Erv Soulier, and myself drove to Superior, WI, to a beautiful park overlooking the St. Louis River estuary. This is one location where the Wisconsin Wetland Association (WWA), a non-profit organization focusing on wetland health and education, celebrated their Wetland Gems™ program (www.wisconsinwetlands.org/gems.htm).

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Special points of interest:

- *Kakagon and Bad River Sloughs named Ramsar Site, a wetland of international importance.*
- *Wolf hunting a probability in Wisconsin.*
- *Big Land Purchase, the largest private land conservation in Wisconsin history.*
- *Questioning the decision making behind mining.*



What's All This Talk about a Wolf Hunt in Wisconsin?

By: Lacy Hill– Wildlife/GIS Specialist

Delisting of the Western Great Lakes Distinct Population Segment of Gray Wolves

On May 5th 2011, the United States Fish and Wildlife Service published a proposal to remove Endangered Species Act Protection for the Western Great Lakes Distinct Population Segment (area includes: Michigan, Wisconsin, Minnesota, and parts of Ohio, Indiana, Illinois, Iowa, South Dakota, and North Dakota) includes northern of the Gray Wolf. On December 28th, 2011 the final rule from that proposal was published in the Federal Register. Before the final rule was published there was a public comment period for people to comment on the rule. The final rule took effect on January 27th, 2012.

So what does it mean? Well since January 27th, State and Tribal laws now dictate wolf management. Minnesota, Wisconsin, and Michigan all had developed wolf management plans which are now the guidelines for present wolf management in those states. Monitoring of wolf population must still occur in the core wolf recovery area in Min-

nesota, Wisconsin, and Michigan. For more information about delisting or to see the different states' wolf management plans, you can visit the USFWS services webpage: <http://www.fws.gov/midwest/wolf/delisting/index.htm>.

Wisconsin will be having a Wolf Hunting and Trapping Season. Some of the specifics of this season were laid out in the legislation which I will list below (To read the Act in detail you can view it here: <http://docs.legis.wisconsin.gov/2011/related/acts/169>):

All monies received from the issuance of wolf harvesting licenses and all processing fees are to be used for the Wolf Depredation Program.

If the wolf is not listed on the federal endangered list and is not on the state endangered list, the WDNR shall allow the hunting and trapping of wolves and shall regulate it.

The WDNR may limit the number of wolves that may be taken by issuing wolf harvesting licenses.

The WDNR shall determine the number of licenses that will be available for a given year. The number of licenses to be issued shall equal an even number.



Wolf tracks found on the Bad River Reservation during 2012 tracking surveys.

If the number of qualified applications for wolf harvest licenses exceeds the number of licenses that are available, the department shall issue 50 percent of the licenses by selecting at random the applicants to be issued licenses. Then the WDNR shall issue the remaining 50% based on a cumulative preference system.

Transferring of licenses must occur before October 30th of that year and the person it is transferred to must be at least 18 years of age and eligible to use the license.

A Wolf Season in Wisconsin

On January 31st, 2012 Senate Bill 411, a bill related to the hunting and trapping of wolves, was introduced by Senators Moulton, Holperin, and Lasee. On March 30th, 2012 the bill was presented to the Governor. The bill is now known as 2011 Wisconsin Act 169 which was published on April 16th, 2012.

So what does all of this mean? Well on October 15th of this year the state of



The WDNR shall establish a single annual open season for both hunting and trapping of wolves that begins on October 15th of each year and ends on the last day of February of the following year.

The WDNR shall divide the entire state into wolf harvest zones and each zone shall be open to both hunting and trapping. A wolf harvesting license authorizes its holder to hunt or trap or both only in the zones specified by the license.

The WDNR may close a wolf harvesting zone to both hunting and trapping of wolves, if the department determines that the closure is necessary to effectively manage the state's wolf population. Closure of a wolf harvesting zone may not take effect until at least 24 hours after the department has done all of the following: posted notice of closure on its website, announced the closure on its telephone registration system, issued a press release announcing the closure.

A wolf hunting license authorizes the hunting of wolves by using any of the following: A firearm, bow and arrow, or a cross bow, dogs to track or trail wolves, predator calls, including electronic calls. Bait that does not involve animal parts or animal byproducts, other than liquid scents.

A wolf hunting license authorizes hunting with a rifle, muzzle-loading firearm, a handgun, a shotgun that fires slugs or shot shells, and any other firearm that is loaded with a single slug or ball. A wolf hunting license authorizes hunting with shot that is larger than size BB.

A person may hunt wolves using dogs beginning with the first Monday that follows the last day of the regular season that is open to hunting deer with firearms and ending on the last day of February of the following year. No more than 6 dogs in a single pack may be used to trail or track a wolf, regardless of the number of hunters assisting the holder of the wolf harvesting license.

A person may hunt wolves during nighttime beginning with the first Monday that follows the last day of the regular season that is open to hunting deer with firearms and ending on the last day of February of the following year.



"...Bad River Tribal Council approved an emergency rule prohibiting the harvest of wolves within the exterior boundaries of the Bad River Reservation..."



A person who is hunting under a wolf harvesting license is not subject to any restrictions relating to hunting seasons, zones, or times that the department imposes on the hunting of coyote.

The types of traps that shall be authorized by the WDNR for trapping wolves shall include cable restraints.

Radio telemetry devices attached to harvested wolves shall be returned to the WDNR.

Wolf Harvesting license cost: Resident- \$99.25
Nonresident- 499.25 Application Fee - \$9.75.

The WDNR shall administer a wolf depredation program under which payments may be made to persons who apply for reimbursement for death or injury caused by wolves to livestock, to hunting dogs other than those being actively used in the hunting of wolves, and to pets and for management and control activities conducted by the department for the purpose of reducing such damage caused by wolves.

The WDNR shall establish maximum amounts that will be paid depending on the type of animal that suffered the death or injury. If the amount available from the appropriation is insufficient in a given fiscal year for making all of these payments, the WDNR shall make payments on a prorated basis.

So what does all of that mean? Well it is the basic framework of the 2012 Wolf harvest season in Wisconsin that will begin on October 15th. The WDNR has been working on getting everything ready for this season. Four public meetings were held in June to gather additional input for the upcoming season: June 6th in Spooner, June 8th in Black River Falls, June 14th in Fond du Lac, and June 15th in Rhinelander. On July 17th, there will be a Natural Resources Board meeting in Stevens Point to approve the emergency rule (2011 Wisconsin Act 169).

-Continued on page 4-

-What's All This Talk about a Wolf Hunt in Wisconsin? Continued



Current Wisconsin Landowner Wolf Control Permits

Since the final rule on delisting the gray wolf in the Western Great Lakes Distinct Population Segment the WDNR has had authority to issue permits that authorize the shooting or trapping of wolves on privately owned property. The criteria for obtaining a wolf control permit are as follows:

1. At least one verified depredation has occurred within the last 2 years on owned or leased land;
2. A verified depredation has occurred within one mile of the applicant's property with vulnerable animals within the current calendar year;
3. Human safety concern from wolves exists on the property as determined by U.S. Department of Agriculture Wildlife Services or DNR; or
4. Harassment of livestock is occurring and based on the judgment of Wildlife Services a permit should be issued..

Permits are usually valid only for the first 90 days after issuance. A number of permits that were issued in late winter and early spring of this year have been extended to December 31st, 2012. Hunting and trapping of wolves is allowed under these permits with no limit to the number of animals to be removed or destroyed under these permits. As of June 15th, nine wolves have been taken under these permits and 30



wolves have been euthanized so far by Wildlife Services. For more information on Land Owner permits you can visit this website: <http://dnr.wi.gov/topic/wildlifehabitat/wolf/permit.html>.

Bad River Band's Plans for Wolf Management

The Bad River Natural Resources Department began monitoring wolves on the Reservation in 1996. Wolf population are monitored using radio telemetry, tracking surveys, howling surveys, and keeping observation records in the department building. Currently the department is monitoring 4 packs of wolves that have territories that encompass lands on and off reservation. The department plans to continue actively monitoring these wolves.

On May 9th, 2012 Bad River Tribal Council approved an emergency rule prohibiting the harvest of wolves within the exterior boundaries of the Bad River Reservation until further notice. This is in effect until the Tribe has an approved Wolf Management Plan which the Bad River Natural Resources Department has been actively working on.

If you would like any more information on this topic or have wolf sightings you would like to report please contact Lacey Hill, Wildlife/GIS Specialist, wildlifegis@badriver-nsn.gov.



News from the Sloughs: Manomin Monitoring By: Jessica Soine– Wetlands Specialist

This field season the staff of the Water Resources Program at the Bad River Natural Resources Department will be monitoring the manomin on the Reservation by conducting density counts prior to the wild rice ripening, conducting harvester surveys during ricing season, and collecting sediment cores for historical data. The majority of the funding for this work comes from a grant awarded by the Wisconsin Tribal Conservation

Advisory Council to the BRNRD for the 2012 field season. The harvester surveys, density counts, and sediment cores will help the BRNRD assess wild rice health, habitat suitability, and past wild rice distribution. Also, by monitoring, the BRNRD hopes to start addressing the concerns of community members who attended the November 2011 Wild Rice Forum.



The 2011 Wild Rice Forum was an overall success with about fifty community members in attendance and presentations from Chairman Mike Wiggins, Jr., Community Elder Joe Rose, GLIFWC Biologist Peter David, and retired Northland Professor Jim Meeker. After these presentations community members were encouraged to voice their concerns and ask questions. Many members voiced concerns ranging from traditional knowledge to the possible side effects that herbicide treatment of invasive species might have on the manomin. Other feedback from the forum showed that people's priority concerns regarding impacts to manomin were mining, invasive species, and water quality. (Please see Figures 1 and 2 to see a complete summary of the feedback results.) These are concerns the BRNRD is focusing on with this expansion of their monitoring protocols; both the density counts and harvester surveys have components directed at collecting data about invasive species, and the density counts include a water quality parameter as well.

-News from the Sloughs: Monitoring Manomin Continued-

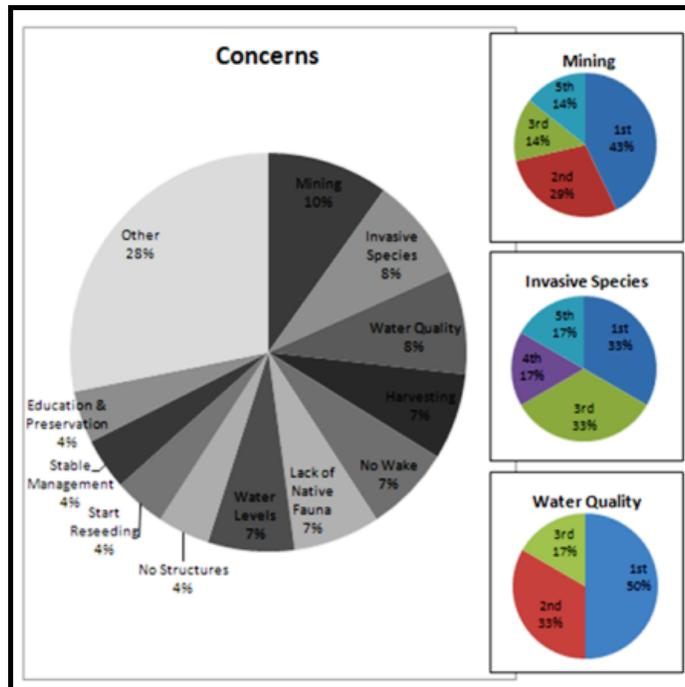
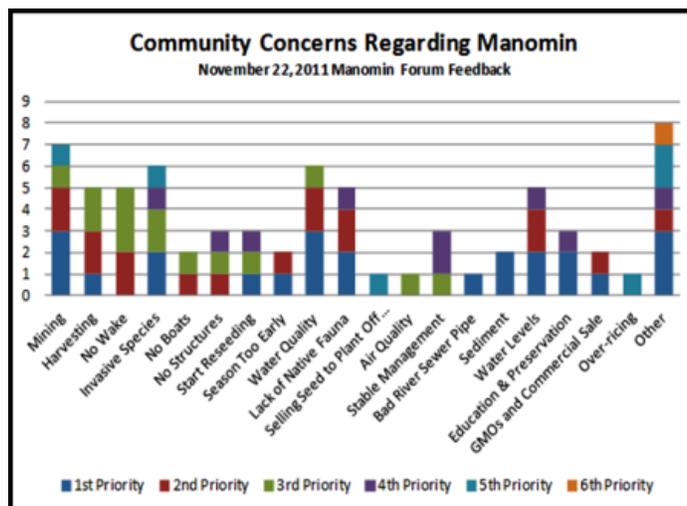


Figure 1: BREAKDOWN OF CONCERNS REGARDING MANOMIN Results from feedback forms handed out at the November 22, 2011 Manomin Forum at the Bad River Casino Convention Center. This chart provides a breakdown of Mining, Invasive Species, and Water Quality by the response rating for their priority as they are the three main concerns. Selection of the top three categories disregards the "Other" category (which includes No Boats, Season Too Early, Sediment, Seed to Plant Off-Reservation, Air Quality, Bad River Sewer Pipe, Genetically Modified Organisms and commercial sale, Over-Ricing, and Other).

Figure 2: COMMUNITY CONCERNS REGARDING MANOMIN Results from feedback forms handed out at the November 22, 2011 Manomin Forum at the Bad River Casino Convention Center. This table reports the responses to the first question on the form which asked participants to prioritize their concerns regarding wild rice; blanks spaces were labeled 1-5 for the participants to fill in.



This year's project will be in addition to the prior manomin monitoring that the BRNRD has completed over the years. However, the BRNRD isn't narrowing its role to only research and monitoring, the Tribe's new federally-approved water quality standards that were finalized last year have several sections specifically prohibiting the disruption of the quality and quantity of water in such a way that it adversely affects wild rice. One of these sections also specifically addresses the adverse effects sulfate may have in wild rice waters; since high levels of sulfate have been correlated with damage to manomin beds. Overall, the BRNRD is continuing to work on monitoring and protecting the environment and ecosystems within the Reservation, with wild rice being the focus of some of its projects.



Graveyard Creek Restoration

By: Tim Wilson– Fisheries Specialist

Graveyard Creek had once supported a coaster and resident brook trout population. Excessive stream braiding, sediment loading, and a rise in water temperatures have reduced the habitat potential of the creek; thereby inhibiting the resident brook trout population and eliminating coaster brook trout. The Bad River Natural Resources Department has been engaged in restoration activities on Graveyard Creek for more than ten years. Past projects, funded by the USFWS and the NRCS, assisted in the restoration of the creek by removing debris at the creek mouth and beaver control efforts. NRCS funds have also assisted in stream channel restoration on upstream sections of the creek. In 2001, a rehabilitation plan to restore coaster brook trout to Graveyard Creek was established, and the creek is one of five study streams identified in the Wisconsin Lake Superior Basin Brook Trout Plan. Also supporting recovery, the Wisconsin Department of Natural Resources changed the sport angling regulations for nonmembers to permit only catch and release of brook trout on Graveyard Creek.

Previous projects have begun the



A brook trout spawning at the Graveyard Creek road crossing. Photo by Tim Wilson, Fisheries Specialist.

restoration of Graveyard Creek. But, it is essential to build upon positive gains and maintain restoration momentum. The Bad River Natural Resources Department has received USFWS funds to restore the natural stream hydrology of the lower most two miles of Graveyard Creek, as the Department will be working on Graveyard Creek for the next two field sea-

sons. During this restoration project, the Department hopes to remove beaver dams to allow fish to move freely throughout the creek, create or expand brook trout spawning locations by placing gravel in the stream, enhance stream flow in areas of the creek to help flush sediment and expose gravel used by brook trout during spawning, and install fish structures to increase cover for fish in the stream. Restoring the creek should promote a meandering, cold-water system offering diverse habitats supporting a range of life-history requirements for endemic fish species.

If you have any questions regarding this project or would like more information, contact Ed Leoso, Fisheries Technician or Tim Wilson, Fisheries Specialist at 715-682-7123.



A Graveyard Creek brook trout caught during a recent fish survey. Photo by Ed Leoso, Fisheries Technician.

Big Land Purchase

By: Corine Bigboy

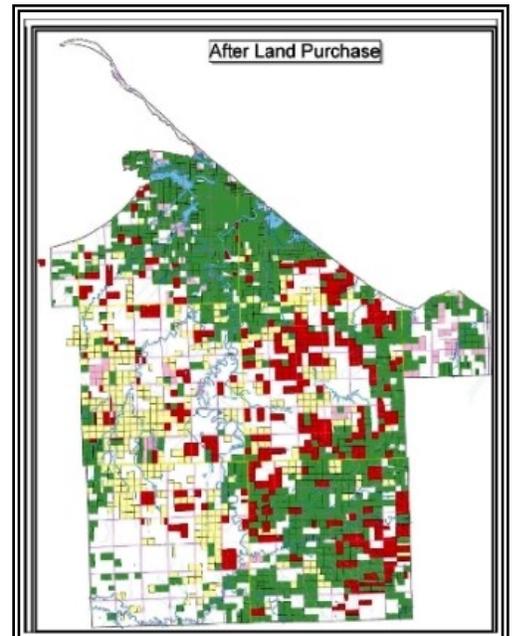
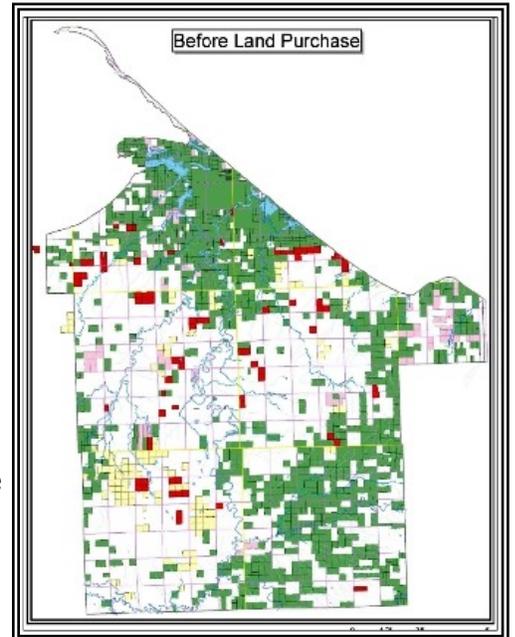


Tony Gilane, Master of Ceremonies, at the "Big Land Purchase" Celebration.

In 2002 a referendum vote made by the Bad River Tribal Membership authorized the largest private land conservation purchase in Wisconsin State history. The purchase, now referred to as the "Big Land Purchase," was a transaction between Plum Creek, the Nature Conservancy and the Bad River Tribe. It represents the acquisition of 21,300 acres of forested land, or approximately 17% of the Tribe's own treaty land. At the time of the purchase the total amount of tribally owned treaty land was roughly 70%. By purchasing the acreage of land it could help the Tribe conserve wildlife habitat, restore protection for 24 miles of the rivers and streams, and help maintain high water quality standards throughout the Bad River watershed.

The Celebration

On February 10, 2012 a celebration was held at the Bad River Casino Convention Center to commemorate this historic land purchase in our tribe's history, as well as the state of Wisconsin. The doors were open to the public and the event was sponsored by the Natural Resources Department, where there was plenty of food, cake and punch to go around. Guests had the chance to view the power point presentation, map display, and were able to take home informational brochures. William (Tony) Gilane provided Master of Ceremony services and guest speakers included: Natural Resource Director-Ervin Soulier, Tribal Chairman at time of land purchase-Eugene Bigboy, Sr. and Realty Specialist at the time- Jim Wabindato. The Big Land Purchase Committee would like to thank everyone that attended and donated time or items to make this event a success. The celebration was long overdue and greatly appreciated by all.



Top: Map shows Tribal treaty land (red=Tribal Fee) before purchase.

Bottom: Map shows Tribal treaty land (red=Tribal Fee) after purchase.

"...Bad River Tribal membership authorized the largest private land conservation in Wisconsin State history."

-Protecting an International Treasure Continued-

After the ceremony, Erv and I sat down at a picnic table with Becky Abel, former director of WWA. This is when the idea of pursuing a Ramsar designation for the Sloughs was first planted in my mind (Thank you, Becky!).

Like a seed, an idea needs time to be nurtured and supported in order to grow and thrive. It's easy to understand why the Kakagon and Bad River Sloughs should be a Ramsar site; the Sloughs already had a long list of designations and recognitions. The hard part was pursuing the designation: would we have the support and the time to make this designation a reality?



Numerous wildlife species, such as this young eagle, utilize the Sloughs complex for habitat and food.

Luckily, there were many wonderful people willing to work hard to support this idea. Kyle Hanson, former Wetlands Specialist of our Natural Resource Department, and Katie Beilfuss, Outreach Programs Director for WWA, helped lead this long list of those dedicated to the Ramsar designation process (Thank you, Kyle and Katie!). In May 2010, they presented the idea to the Tribal Council, who immediately supported pursuing this designation. And less than three years from that conversation at the picnic table on that sunny July day, the Ramsar designation for the Sloughs was finalized!

The Ramsar designation is just one of numerous projects that the Bad River Natural Resources Department (BRNRD) has implemented to protect



Celebrating the designation of the Kakagon and Bad River Sloughs as a Ramsar site at the Wisconsin Wetland Association's 17th Annual Wetland Conference held in Lake Geneva, Wisconsin, in February 2012. Katie Beilfuss (Wisconsin Wetland Association), Jessica Soine (BRNRD), Eldred Corbine (Bad River Tribal Council), Mike Wiggins, Jr. (Bad River Tribal Chairman), Tracy Hames (Wisconsin Wetland Association), Frank Connors, Jr. (Bad River Tribal Council), and Naomi Tillison

River Sloughs complex. BRNRD recently helped the Bad River Tribe develop federally-approved water quality standards (WQS). Learn more about the WQS here: <http://www.badriver-nsn.gov/natural-resources/announcements-natural-resources>

What is a Ramsar site?

The Convention on Wetlands of International Importance is a treaty initiated in Ramsar, Iran, in 1971 that provides for international cooperation among 160 countries for the conservation and wise use of wetlands. The Kakagon and Bad River Sloughs complex was one of the exceptional wetlands designated as a Ramsar site in February 2012, bringing the total to over 2,000 Ramsar sites worldwide! To learn more about Ramsar sites, visit: www.ramsar.org

Wild rice and pickerel weed near the Hatchery on the Kakagon River in July 2011.



Special thanks goes out to those who supported the Ramsar designation process, including:

Katie Beilfuss, Tracy Hames, & Wisconsin Wetland Association, www.wisconsinwetlands.org & Becky Abel, former Director of WWA

Bad River Tribal Council & Bad River Natural Resources Department (BRNRD), current and former staff

Kyle Hanson, former BRNRD Wetlands Specialist

U.S. Fish and Wildlife Service (USFWS)

Congressman Sean P. Duffy

Ashland County Land & Water Conservation Department (Tom Fratt)

Bad River Watershed Association (Michele Wheeler)

Iron County Land & Water Conservation Department (MaryJo Gingras)

Lake Superior Natural Estuarine Research Reserve (Ralph Garono)

Sigurd Olson Environmental Institute of Northland College (Grant Herman, former Director)

Wisconsin Coastal Management Program (Mike Friis)

Matt Dallman, Director of Conservation, The Nature Conservancy in Wisconsin

Faith Fitzpatrick, Research Hydrologist, U.S. Geological Survey

Cathy Techtman, UW Extension, Northern Great Lakes Visitor Center

Joy B. Zedler, Aldo Leopold Chair of Restoration Ecology at University of Wisconsin-Madison

Wisconsin Ramsar Committee, including Tom Bernthal (WI DNR), Eric Epstein (WI DNR), Mike Grimm

(TNC), Cherie Hagen (WI DNR), Don Hammes (Wisconsin Wildlife Federation), Carmen Hardin (WI DNR),

Randy Hoffman (WI DNR), Brian Huberty (USFWS), Greg Kidd (USDA-NRCS), Ricky Lien (WI DNR), Mike Mossman (WI

DNR), Travis Olson (WI Coastal Management Program), Don Reed (Southeast Wisconsin Regional Planning Commission),

Jim Riemer (USFWS), Jim Ruwaldt (WWA Board), Joel Trick (USFWS), Pat Trochlell (WI DNR), and Bill Volkert (Horicon National Wildlife Refuge)



What Radon?

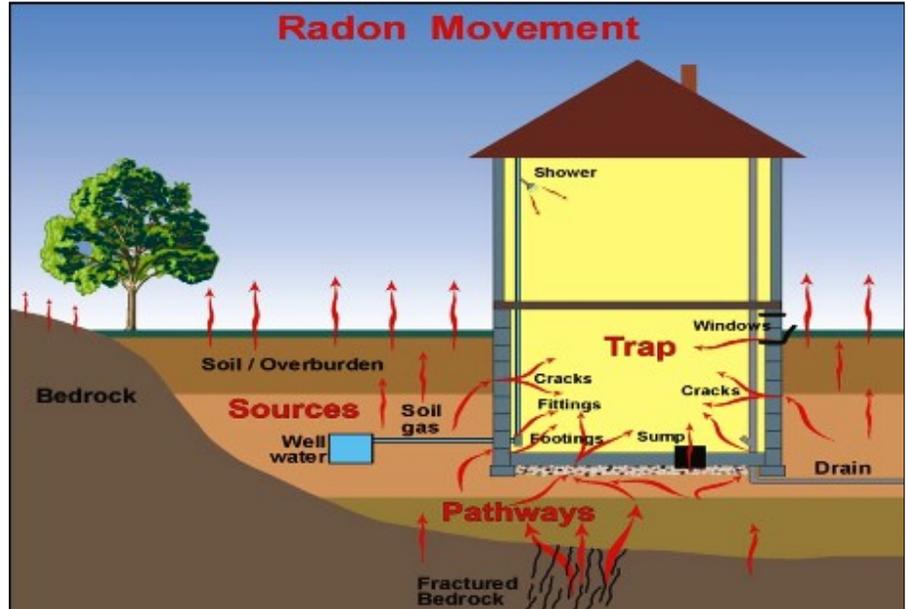
By: Daniel Wiggins JR– Air Quality Technician

What is Radon? Radon is formed when uranium, thorium, and radium breakdown within bedrock and release radon gas into the soils, rock and water. It is a radioactive-noble gas, naturally occurring, and which human senses cannot detect it. This means smelling, seeing, feeling, tasting, and yes even hearing will not be determining factors for if a house has Radon. Only way to tell if you have Radon, is to test.

Why test for Radon? Radon is considered a "Class A Carcinogen." This meaning that it is a cancer-causing agent, in which no level is safe. Due to it being a gas, it is acceptable for finding easy pathways into structures through foundation holes or cracks, and at times through ground water. When in the home, it continues to breakdown into radon decay particles that are capable of attaching to floating dust. These dust particles are eventually breathed in and may then attach to your lungs' airways, where lung cancer than becomes possible.

Every person in the United States should test their home for Radon, and just because your neighbor tested, and came back with low levels, does not mean your house will. Each house has its own characteristics, and therefore creates diverse indoor environments. Fortunately, there are Radon reduction techniques that are successful in bringing high-radon-level-structures down below the EPA's safety standard. Most techniques involve taking the radon gas from underneath the structure slab, before it infiltrates the structure or foundation, and releasing them above the house (More radon reduction technique and strategy information can be found at www.epa.gov/radon/pubs/).

When Should I test? A person should test if their home has never been tested, if there has been new construction or refurbishing, and every



Shows the accessibility of radon gas, from the bedrock and soil, into a house structure.

two to five years for retesting.

Who can test? Any person could test their home in the state of Wisconsin; however, having a radon professional conduct measurement testing can be reassuring in knowing the process has been done correctly and you are receiving accurate results.

Where can I go? The Bad River Air Quality Office has technicians trained and qualified for measurement testing, as well as mitigation techniques and strategy in order to solve high levels of radon within housing structures. Bad River is also fortunate to offer measurement testing services free-of-charge. The Wisconsin State Department of Health Services has a Radon program that can assist with measurement testing and mitigation techniques, as well. The Environmental Protection Agency (EPA) has set radon safety standards on what is considered safe and has committed to creating a guide for the homeowner to address Radon issues (*A Citizen's Guide to Radon, Home Buyer's and Seller Guide to Radon*, and others can be found at www.epa.gov/radon/pubs/).

If you have more questions or need more information, assistance can be found at these two places:

**Daniel Wiggins
Air Quality Office**

Bad River Natural Resource Dept.
Ph: 715-682-7123
Fax: 715-682-7118
Air1@badriver-nsn.gov

Wisconsin State Radon Program

Wisconsin Dept. of Health Services
1 West Wilson Street Room 150
Madison, WI 53703
Ph: 608-267-7199
Fax: 608-267-4853
www.lowradon.org

PART II: MINING & GOVERNANCE

By: Cyrus Hester– Bad River Environmental Program



Well, it has certainly been a dynamic and charged year and a half. Hopefully everyone is familiar with the story: Gogebic Taconite publically announced its interest to pursue a low-grade iron ore mine under existing state law in January of 2011. In May of that same year, Wisconsin Manufacturers and Commerce began an ad campaign promoting the "jobs for generations bill" and a draft bill (LRB

3250) was scheduled for the Assembly. Public outcry led to that bill being withdrawn and in June Gogebic Taconite announced that it would not proceed with the proposed mine without a new law.

A shockingly similar bill was proposed in December of last year. Public testimony on the bill was 2:1 against and 3:2 against at hearings in Milwaukee and Hurley, respectively. That bill was voted on along party lines and passed to the Senate. In the Senate, the complexity of the issue increased considerably. As of the writing of this article, neither the assembly's bill (AB426) nor an alternative bill proposed by Senator's Jauch and Schultz has been passed by the Senate. For the present, it appears that the *irresistible force* to alter the current framework for regulating iron mining in the state has hit an *immovable discord*.

Given the attention mining legislation has received in Wisconsin this year, it seems logical to spend some time talking about the relationship between mineral resources and decision-making. Under current metallic mining law in Wisconsin, three systems are in place: policy, science, and law. Policy provides the context for government action, science acts as the foundation for responsible decision making, and

the law provides a framework to ensure those decisions are driven by good science and consistent with policy (T. Evans, 2011).

Current regulation in the state permits responsible mining and places the greatest emphasis on site reclamation. It accepts, but seeks to limit environmental impacts and considers the involvement of local citizens and governments essential. This point _the involvement of local citizens_ is particularly sensible, given that modern metallic mining involves the removal or significant alteration of a landscape so that private interests can profit from a local resource serving global demands. It represents significant change and the probable loss of ecosystem services and local practices supported by that multiple-use landscape. The public will, and should, have questions and concerns and a responsible regulatory framework promotes stability by involving and empowering those citizens, not excluding them.

Frankly, unlike the Tylenol bottles in my house, this regulation is not fool proof. I have yet to learn of a proposed operation that has ever been denied a permit and, given the pressure to permit such an influential industry, it would be nice to have broader characterization of unsuitable sites and more holistic review of projects which purportedly benefit the public good. Measures promoting economic, social, and environmental responsibility should be more clearly defined (e.g. triple bottom line accounting; Elkington 1994). Moreover, as is common practices among the sciences, the quantification of uncertainty should be mandatory for all metrics and standards from determining place-based cumulative impacts should be better developed.

That being said, strengthening existing regulations does



Above: An LCO member joins tribal representatives and concerned citizens from throughout Wisconsin in Hurley to make his voice heard on the controversial assembly bill to create separate iron mining regulations in the state.

-Part II: MINING & GOVERNANCE Continued-

not appear to be appropriate conversation for today's political dinner table. At the behest of Gogebic Taconite, with apparently little cooperation with DNR technical staff, and no consultation with the tribes, a new regulatory framework was proposed: the infamous ferrous mining bill referenced above (LRB 3250/AB 426). The proposed ferrous mining bill written by Gogebic Taconite superseded all existing state environmental regulations and even provided conditions for a company to be exempt from permitting all together. The bill even went further, drastically impairing the methods by which we are able to anticipate impacts, hold an operator accountable, and consider the public good.

Proponents of the GTAC bill often justified its existence by stating that it was necessary to promote "responsible mining." I'm going to avoid the debate on whether mining can be done responsibly with existing technologies, and simply state that you do not promote responsibility by removing accountability. In fact, it is exactly the loss of accountability that leads to the famous "resource curse" pattern observed in the developing world.

Simply stated, the resource curse is an apparently paradoxical, geopolitical phenomenon where countries rich in resources often lag far behind resource-poor countries when it comes to human development indices and quality of life. Well known examples include: Niger, Liberia, Zambia, Sierra Leone, and so on. What tends to happen in these, and other places, is the promise of resource-based wealth leads to higher incidences of corruption and the exclusion/dilution of an engaged populous. Governments in these places don't promote equity_ the fair distribution of wealth and opportunity_ or economic diversification. The result is prosperity for the few, including the company, and little-to-no benefit for the public good.

In closing, I'd like to simply observe that regulations are the framework by which people agree to manage shared resources; whether those resources are iron, water, air, or all of the above. When those regulations are developed in the absence of the people they affect, justice and wisdom are rarely the end result.

The line between prosperity and the resource curse is thin. Where we fall in regards to that line ultimately depends upon good science, wise regulation, and the voice of an informed people. Who knows, with all three of those ingredients we may even find that making truly responsible decisions means we put more energy into recycling and education than drafting regulatory exemptions for singular interests.



Wildfire in Minnesota was increased by changing winds where smoke was distributed across northern Wisconsin.

Wildfire Smoke Can Affect Air Quality

By: Nathan Kilger– Air Quality Specialist

On August 18th a lightning strike, in Minnesota, started a wildfire that slowly burned for almost a month in a wilderness area, before winds drastically increased the fire on September 13th. The resulting smoke plume from that day was trapped near ground level by weather conditions and was blown across Lake Superior into Michigan and Wisconsin that morning. Lightning strikes, wildfires, and smoke are all natural parts of the natural environment, but can impact human health and need to be taken seriously.

Northern Wisconsin and Bad River were not directly impacted, but there was a brief smoky smell in the air as the sun rose on September 13th. The majority of the smoke moved southward through the Upper Peninsula and eventually reached as far south as Milwaukee and Chicago. The weather along the southern portions of Lake Michigan allowed the smoke to become trapped for over 34 hours before finally clearing out.

While air quality in Bad River remained relatively clean and the smell of smoke lingered for only a very short period of time, air quality in other nearby areas was worse for almost an entire day. People with asthma, illness, and lung problems in southern Wisconsin reported troubles breathing and were advised to stay indoors away from the smoke. Emergency management in those areas received many calls inquiring where the smoke was coming from. It shocked many to find out how far the smoke travelled.

-Continued on page 14-

-Wildfire smoke can affect Air Quality Continued-



Top: Aerial image shows smoke stretching across Lake Superior during Pagami Creek Fire September 11, 2011

I want to take a moment to highlight how events many miles away can impact the air you breathe, even if you aren't aware of it. Certain people, from either past illnesses or previous complications, are more sensitive to poor air quality. People that suffer from asthma usually can tell when the air is different, when most other people do not feel anything. The Lake Superior region often receives trace amounts of smoke when fires are burning in Canada, the western U.S., or even neighboring states. These episodes can be brief, or extraordinary sunrises and sunsets (the moon too) can be seen for several days at a time.

Whether it is from wildfire smoke or hot & hazy summer days with higher pollution from automobiles and businesses, pay attention to your body and the way you feel. If you know you are sensitive or have asthma, take the subtle clues from your surrounding environment and find a place where you can breathe easier. This can often be as simple as staying inside as much as possible and keep the windows closed. Staying healthy is most important thing you can do for yourself, and breathing easy is a key part of that goal.

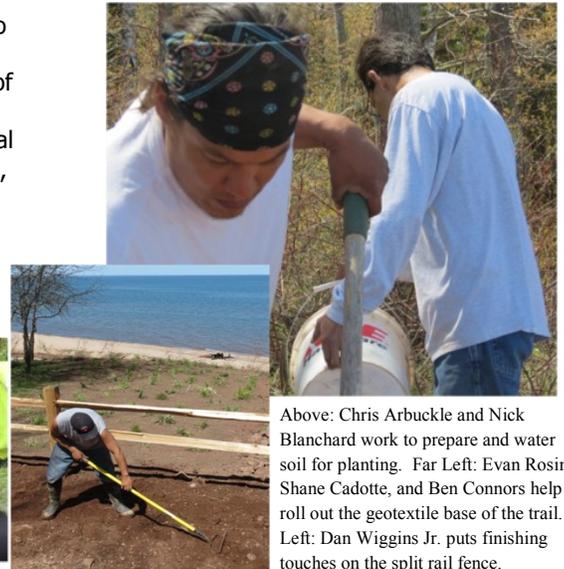
Bottom: Picture taken from fly over during the 2011 Pagami Creek Fire. Fire ash was contributed to fires on some of the islands nearby.



What's New?

Waverly Project

In 2010, the Community Advisory Board identified and sought opportunities to address environmental barriers to healthy lifestyle choices on the Bad River Reservation. The lack of safe and reliable access to Waverly Beach was one of those barriers. In an effort to begin the incremental path toward access improvement, the Natural Resources Department began working with the Natural Resource Conservation Service, the Association of American Indian Physicians, and community members to install an access trail and stabilize the hill side at Waverly Beach. With all their help it was a great success! We're incredibly grateful for the help of everyone involved, including: Dan Wiggins Jr., Chris Arbuckle, Nick Blanchard, Ben Connors, David Nevela, and many others!



Above: Chris Arbuckle and Nick Blanchard work to prepare and water soil for planting. Far Left: Evan Rosin, Shane Cadotte, and Ben Connors help roll out the geotextile base of the trail. Left: Dan Wiggins Jr. puts finishing touches on the split rail fence.

New Hire



Daniel Wiggins JR started in April as our new Air Quality Technician. Daniel recently graduated from the Lac Courte Oreilles Ojibwa Community College with an Associate of Applied Science in Agriculture and Natural Resources. Daniel as child grew up on Kinnickinick Street and has lived on the Bad River Reservation for 20+ years. He now enjoys spending time with his five children and will likely be living on Kinnickinick Street for at least another 20 years.

Along with the position of Air Quality Tech., Daniel has also acquired the oversight of the Bad River Tribal Indoor Radon Grant. If you have any questions or concerns about Radon please contact him at 715-682-7123 extension 1553 or at Air1@badriver-nsn.gov.

Well Closure Project

One important project that the Bad River Water Resources Program is involved in is the closing of abandoned drinking water wells. Wells that are not properly abandoned can act as a conduit for pollutants to get into the aquifers used for drinking water. It was the intention when this project was put forth to properly abandon as many wells as possible not currently in use or those that have fallen into disrepair. This project is funded by the EPA and with supplemental funding from the Bad River Tribe and the Natural Resource Conservation Service (NRCS). To date the Bad River Water Resources Program has closed 48 abandoned wells within the Bad River Reservation.

Edward Kolodziejski the Water Resources Technician/ Lab Coordinator is requesting any information about any abandoned wells in the area. He can be reached at 715-682-7123 x1565.

ATV Registration

Effective July 1, 2012, the State of Wisconsin is requiring that all-terrain vehicles be licensed for use on public land. Tribal members who reside on the reservation and register their ATVs with the Tribe are exempt from obtaining a license plate for their ATV **if the registration decals are properly displayed AND the ATV does not leave the reservation for more than fifteen (15) consecutive days. ATV registration is available at the BRNRD.**



BAD RIVER NATURAL RESOURCES

Bad River Natural Resource Department
 Chief Blackbird Center
 72682 Maple Street
 Odanah, WI 54861

Phone: 715-682-7123
 Fax: 715-682-7118

We're On The WEB!
www.badriver-nsn.gov

-MISSION STATEMENT-

The Department strives for resource management which both conserves the natural resources for the future generations and provide for the needs of the present. The departments existence reflects the importance the Bad River Tribe places on its right and ability to exercise sovereignty, self-determination and self-regulation in the area of natural resource management.

DEPARTMENT EVENTS

Save the Date
Bad River Lake Superior Day Celebration !!

Friday, July 13, 2012
11AM-3PM
Joe Rose Residence, Lake Road, Odanah, WI

This event will be open to everyone, honoring our connection, both environmentally and culturally, to beautiful, Lake Superior. Educational booths, cultural booths, cultural demonstrations, food, games and more !

Save the Date
 Lake Superior Day Celebration
 07/13/2012
 11AM-3PM
 Location: Joe Rose Residence, Lake Road, Odanah, WI

Bad River Tribe Natural Resources Department

Questions or comments?
 Contact Stephanie Julian
 715-682-7123 ext. 609
 stephanie@badriver-nsn.gov

Mark Your Calendar & Save the Date!

Bad River Water Celebration
Friday, July 27, 2012
Bad River Casino Convention Center
Water Ceremony begins at 12:00PM
 Followed by
Special Speakers and a feast in the outdoor tent on the Casino grounds.

Join us for a special event celebrating Bad River's Water Quality Standards, the RAMSAR distinction, and the Blue Globe Award.

Bad River Natural Resources Department | Contact: Stephanie Julian
 BRNRD 715.682.7123

RADON POKER FUN-RUN

Sponsored By the Bad River Air Quality Program & 2012 Bad River Health Fair
 July 18th @ 1:00 PM

Radon is the Second leading cause of lung cancer behind tobacco smoke. It is the First leading cause of lung cancer among people who do not smoke.

POKER FUN-RUN RULES

1. Meet at Bad River Health Fair by 1 pm
2. Five Cards from 5 checkpoints
3. Top Hands win Prize
4. Adult and Children's Division
5. Walking is allowed

Daniel Wiggins
 Air Quality Technician
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 AirI@badriver-nsn.gov