



Miskwaagamiiwi-zaaga'iganiing

Aki-genawendamowaad

Red Lake Department of Natural Resources

Biboon (Winter)

2011-2012

Program Updates

Mitigokewin 2 – 3

Forestry

Awesiinhyag – 4

Wildlife

**Ezhi-ayaag-
gidakiiminaan – 4**

Environmental

**Ezhi-
ganawenjigaadeg-
Nibi- 5**

Waters

Giigoonyikewin– 6-7

Fisheries

Red Lake DNR

15761 High School Drive

Red Lake, MN 56671

Phone - (218) 679-3959

Fax - (218) 679 - 2830

rldnr@redlakenation.org

Visit us on the web!

www.redlakednr.org

Mazina'igan onji Odaakewigima (Letter from Director)

Boozhoo!

This has been a very exciting year for the Red Lake DNR with an increased effort in public awareness, involvement, and stewardship of the tribal natural resources. We continue to work with our children to heighten their awareness of the importance of natural resources on the reservation, which they will be responsible for protecting in the future. We have talked with many students about fire awareness and prevention using Smokey Bear and explaining that fires in the Spring are damaging and not acceptable. This year we participated in many public events including: our first Earth Day Celebration, a Water Festival at Concordia Language Village, and several Take a Kid Fishing events on the Reservation and in the Twin Cities to educate our children to respect and enjoy the natural resources that surround them. We continually work with the Tribal College to assist with their curriculum and education of our next generation of natural resource managers. We, as Red Lake Members, should feel very fortunate for the abundant natural resources that have been left to us to use and protect. At the same time, we must continue to work together to protect these lands and natural resources for our children and grandchildren as our tribal membership continues to grow.



Red Lake Take a Kid Fishing Day - 8/17/11

This is the first newsletter that we have put together in recent years and it has highlighted many of the ongoing or newly funded projects of Forestry, Wildlife, Waters, Environmental, and Fisheries. We hope to be able to publish this newsletter at least semi-annually to keep tribal members informed of current issues surrounding their natural resources. Our Red Lake DNR website www.redlakednr.org is updated more frequently, but we understand that not all Tribal members have access to the internet, while others just prefer to be informed through the mail. If there are topics that you would like to see in future newsletters, please contact me or my staff and we will attempt to accommodate your request.

My staff and I would like to thank you for your continued support and would like to wish you a Merry Christmas and a safe and prosperous New Year.

Miigwech!

Al Pemberton

Al Pemberton

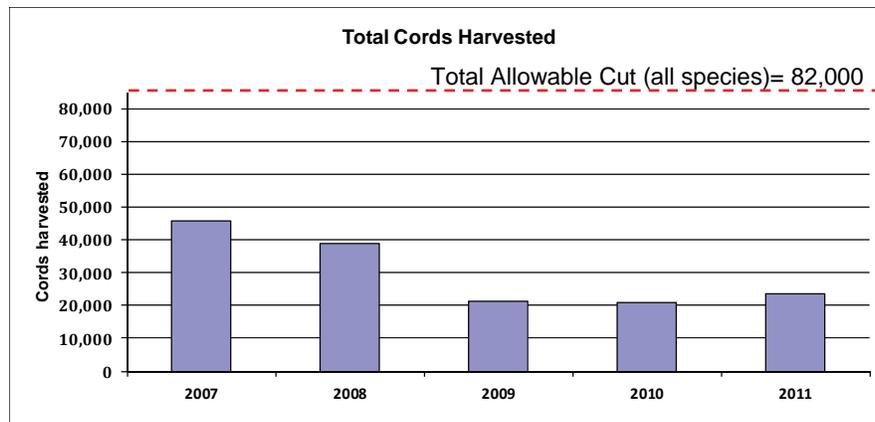
Red Lake Department of Natural Resources Director

Miskwaagamiwi-zaaga'iganiing Mitigokewin (Red Lake Forestry)

The mission of the Red Lake DNR Forestry program is to protect and enhance the forest resources of the Red Lake Reservation while providing forest management services and technical assistance to the members of the Red Lake Band of Chippewa Indians.

Timber Sale Update

Harvest volumes are still well below normal due to the national decline in new home construction. Despite the negative housing trend we have seen a positive upward trend in annual timber sale volume and value in the past two years. Total harvest for FY 2011 (23,204 cords), is up from 20,978 cords in 2009. Approximately 83% of the total harvest consists of aspen. The annual allowable cut for aspen is 44,000 cords per year.



Aspen Management: Clearcutting at Red Lake

Clearcutting has been an increasingly controversial harvest practice over the past few decades. Most people know a clearcut when they see one — a clearcut leaves a bold visual impact on the landscape. So why do we clearcut?

Clearcutting is *not* deforestation. Clearcutting is a legitimate forest management method of regenerating or rejuvenating certain kinds of trees that cannot tolerate shade, whereas deforestation is the removal of a forest with no intention of re-establishing it. Clearcutting is a form of even-aged management where there is a nearly total removal of all trees in a given area with the primary intent of stand regeneration. While clearcutting can be the best management tool for other species, it is the only form of management that will work to regenerate and promote healthy, productive aspen stands.



Aspen has dominated the landscape in the upper Midwest from Minnesota to Maine and into Canada, even before logging began. How is it possible then, for a species to persist if it cannot tolerate shade to regenerate? The answer is that aspen is a species that has adapted to survive and thrive as a result of natural disturbances such as windstorms, fires and floods. Clearcutting is nothing more than a harvest method that mimics natural disturbances. Once established in a stand with a developed root system, aspen will persist and actually improve in quantity (density) and quality with regular disturbance.

Aspen harvest off the Clearbrook Road, shortly after the sale was complete. This area will be planted with Red Pine Seedlings in the spring of 2012.

Aspen tends to grow in groups, called clones, which are supported by a common root system. These interlaced roots will send up new sprouts (called suckers) if the trees are cut when alive. The sprouting is stimulated by two factors: the warming of the ground by the sun due to the removal of shade and the absence of sprout-suppressing chemicals produced in the tops of the aspen trees. Thus, clearcutting provides two essential stimuli for development of a vigorous, new aspen stand. The cleaner the cut, the better it works. Aspens are also capable of producing large quantities of viable seed and can invade areas with no previous aspen component.

Aspen provides habitat for a wide variety of wildlife species needing young forests, including rabbits, white-tailed deer, black bear, ruffed grouse, woodcock and many other smaller birds and mammals. White-tailed deer depend on newly regenerated aspen seedling and sapling buds, as an important food source during winter months. Ruffed grouse use all age classes of aspen; sapling stands for brooding, pole stands for overwintering and breeding and older stands for nesting cover and winter food source.

Aspen are relatively fast growing, short-lived trees. On good sites they usually reach maximum development at about age 50, and deteriorate rapidly at age 70. Aspen, both trembling and bigtooth, comprise about one third of the Red Lake Reservation forest. The average aspen stand may contain about 79% aspen, but can vary from pure aspen to a mixture of about 20 other species. Aspen is currently the most important commercial species in northern Minnesota, and certainly at Red Lake. Although the volume harvested in the past few years is down from what it was five or six years ago, logging continues to be an important source of employment on the Red Lake Reservation. Aspen has accounted for over 75% of the harvest volume since the early 1980's when the local waferboard plants went online. Before those mills opened, aspen had little economic value, and was sometimes considered a weed tree, with limited markets.



Forestry intern Gary Auginash Jr. shows how tall the aspen regrowth is only nine months after harvest.

Mitigwaki Ozhichigewin (Forest Development)



Red Pine seedlings in the new Red Lake Forest Development Center.

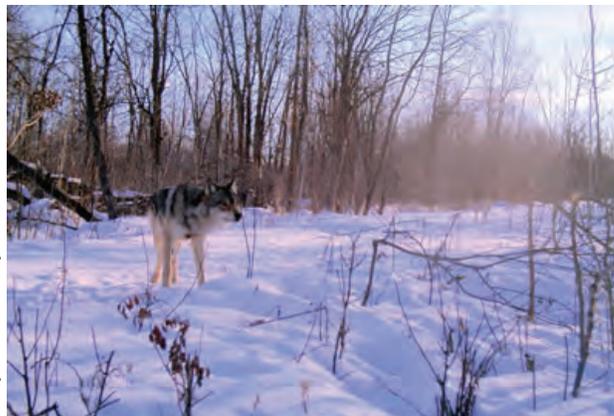
The function of the Forest Development program is to apply silvicultural treatments to establish, promote, and enhance the forests of the Red Lake reservation. Many of these projects include reforestation and pre-commercial forest stand improvement (CFSI) activities.

To support Forest Development efforts, the tribe operates a new greenhouse which raises containerized seedlings of red pine, white pine, jack pine, and white spruce. In May 2011, 218,000 seedlings were seeded in the new greenhouse. These seedlings will be ready to plant during the Spring 2012 planting season. These trees will grow in the greenhouse through the winter months with the aid of photoperiod lighting and wood fired stoves to provide heat for optimum growing conditions even when its 40 below outside!

Awesinhyag (Wildlife Program)

The mission of the Red Lake DNR Wildlife Program is to protect and preserve wildlife resources on lands of the Red Lake Band of Chippewa for current and future generations, through active management of individual species and their habitats, research on population and community dynamics, and public education.

On September 14, 2010, the Red Lake Tribal Council adopted a resolution that designated all Red Lake lands as a wolf sanctuary. In order to manage wolves found on Red Lake lands, the Red Lake DNR - Wildlife Department is continuing to conduct intensive monitoring efforts to identify important wolf areas, habitat use, and generate current estimates of wolf distribution and abundance. We are looking to identify movement patterns and mortality factors for wolves so we are better able to improve and manage the habitats that they use.



Gray Wolf (Northwest Angle, MN)

The Wildlife Department continues to monitor the health and population of the deer herd on the diminished reservation and at the Northwest Angle. The number of deer harvested in both areas is lower this year than in previous years. A drawing is being held for a Marlin rifle and tree stand for anyone who brings in a deer head for chronic wasting disease and tuberculosis testing before December 30, 2011. Neither disease has been found on the reservation, but we are continuing to monitor for them.

Some recently completed projects include road repair, wild rice seeding and removal of secondary water structures at Good Lake, dike repair and tree/brush removal at Kiwosay, water control structure replacement at the Manweiller impoundment in the ceded lands, and completion of the Red Lake Band of Chippewa Indians Gray Wolf Management Plan.

Projects we will work on this winter include track surveys, which are done to monitor the distribution and abundance of several species of wildlife including wolves, bobcat, fisher, marten, deer, coyote, fox, weasel and hares.

Ezhi-ayaag-gidakiiminaan (Environmental Program)

The Environmental Program's main responsibility is to assure that Red Lake Nation is in compliance with federal environmental regulations in order to protect Tribal members and resources. The Program encompasses the Air Quality and Emergency Response programs and maintains a permanent staff of three; a program director, an air quality specialist, and a brownfields coordinator. Program staff works closely with other DNR programs to assure that Tribal resources are well protected.

Some of the Environmental Program's goals and objectives include; develop and promote waste reduction, recycling, and household hazardous waste management, protect tribal groundwater and surface waters from contamination, protect the health and safety of individuals and the environment from accidental chemical releases by maintaining and practicing our Tribal Emergency Response Plan, and monitor dwellings and office buildings for lead, asbestos, and other contaminants.



Air Quality Monitoring Equipment

Since 2007, the Red Lake Air Quality Program has been working to protect and improve the air quality of the Red Lake Nation through indoor and outdoor air projects. Program responsibilities have included establishing temporary ambient (outdoor) air monitoring stations within the reservation boundaries, developing an inventory of emissions sources on or near the Red Lake Nation, and providing community education and outreach. The program has some exciting projects planned for 2012, including updating the emissions inventory, testing Red Lake homes for radon gas, completing the setup of a weather station, participating in the EPA's Tools for Schools program that encourages healthy indoor air quality (IAQ) in schools, and developing a smoke management plan for the Forestry Program.

(Env. Cont) The primary goal of the Red Lake Environmental Response Program (RL ERP) is to protect groundwater and other natural resources on tribal lands. The RL ERP consists of a Brownfields Program and the Underground Storage Tanks Compliance Assistance and Technical Support Program (UST CATS). Currently, we are working on the development of a Hazardous Substance Control Act to provide regulations within the tribal code to protect our natural resources. RL ERP investigates and inventories all potentially contaminated sites. The UST CATS program assists owners of underground storage tanks to comply with federal regulations. Compliance with the regulations protects the environment from potential releases which could harm soil and groundwater. Community members are encouraged to contact the RL ERP with any environmental concerns, which we will promptly address in order to protect the environment for ourselves and for future generations. **We look forward to seeing you at the Earth Day and Healthy Homes celebration in April!**

Ezhi-Ganawenjigaadeg-Nibi (Water Resources Program)

The RL DNR Waters Program was established in 1989 to monitor Red Lake Nation's streams, rivers, lakes, and groundwater. The program has grown from one full-time biologist and technician to our current staff of eight, including biologists, technicians, and seasonal student interns. The Waters Program is funded through grants administered by the Environmental Protection Agency and the Bureau of Indian Affairs. The program participates in partnerships with the U.S. Army Corps of Engineers, Natural Resources Conservation Service, Beltrami Soil and Water Conservation District, Minnesota Pollution Control Agency, Minnesota DNR, and other water quality related organizations.

The Water Resources Program monitors surface and groundwater quality of more than 240,000 acres of lakes, 466,000 acres of wetlands, and 371 miles of rivers and streams. Current monitoring efforts include 91 small lakes, Upper and Lower Red Lake, 5 flowing wells, 4 sealed landfills, and 21 streams. By monitoring physical data, nutrients, bacteria, and biological data we are ensuring the quality of water and health of the lakes, streams, rivers, wetlands, and groundwater on the Reservation. Current projects include: Water Quality Standards Development, Water Quality Monitoring, Contaminants in Fish Study (mercury advisory), Sealed Landfill Monitoring, Abandoned Well Sealing, and Invasive Species Prevention.



Water Quality Monitoring on Lower Red Lake

Akii-mazina'iganan (Red Lake Maps)



Water Resources intern Daris Rosebear surveying Lower Red Lake with GPS/Depth Sounder

Updated Upper and Lower Red Lake maps are available at the Red Lake DNR and the Red Lake Fishery.

In 2010, the Red Lake DNR completed surveying Lower Red Lake to create an improved bathymetric (depth) map. In 2011, the Red Lake DNR completed the survey of the tribal portion of Upper Red Lake. The resulting maps provide the Red Lake DNR detailed information about walleye spawning habitat, and hopefully help Red Lake Tribal Members with the upcoming ice fishing season.

Ice Safety Guidelines:

- 3" or less - STAY OFF!
- 4" - Ice fishing or other activities on foot
- 6" - Snowmobile or ATV
- 9" - 12" - Car or small pickup
- 12" - 15" - Medium truck

Giigoonyikewin (Fisheries Program)

Red Lake Walleye Population Remains Healthy for 2012



The 2011 walleye harvest on the reservation was similar to 2009 harvest and remained under the biological safe harvest level of 829,500 pounds (Figure 1). Anglers on the reservation caught approximately 100,000 pounds this year, with half being caught during the winter and the other half being caught during the open water season. The commercial net crews caught approximately 525,000 pounds during this same time to help supplement the catch at the processing plant. The current system is working very well, by allowing everyone the opportunity to catch and turn in fish at the plant and providing employment opportunities for up to 40 or more people.

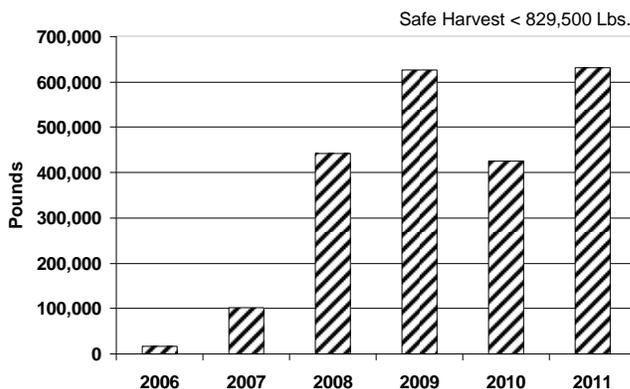


Figure 1. Total pounds of walleye harvested from the reservation waters of Red Lake, 2006-2011.

Fall test netting results indicate that the walleye population is doing very well and current population levels are second highest on record since 1987 (Figure 2). This is despite fairly heavy walleye harvest between 2008 and 2011, and suggests that current harvest level is sustainable. The fish are in very good condition and the stomachs examined were packed full of shiners and young yellow perch, which makes up the majority of the walleye diet. The potential for an excellent ice fishing season exists, if the walleyes cooperate, and are not full of natural forage like they have been the last several years.

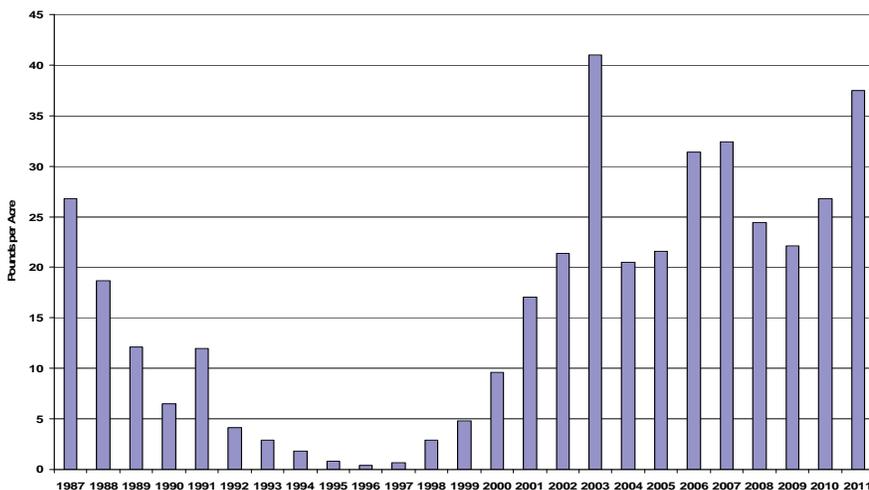


Figure 2. Estimated walleye biomass in the Red Lakes from 1987-2011.

The walleye population is in good shape and is dominated by smaller fish under 20 inches in size (Figure 3). It is estimated that less than 5% of the walleye population in the Red Lakes is over 20 inches. However, we are starting to observe larger fish each year and this year we had fish over 28 inches in our Fall experimental gillnets. The current 20 to 28 inch protective slot limit is designed to protect these larger fish. Less than 5% of the fish caught by the net crews in the summer are over this slot and we are currently working with the Fisheries to reduce this number. We need to continue to work together to increase the number of larger walleyes in the lake to fully recovery the Red Lake walleye population.

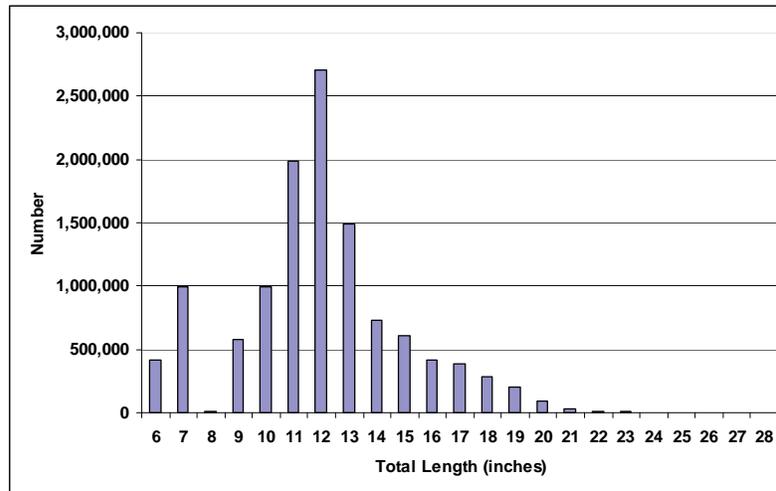
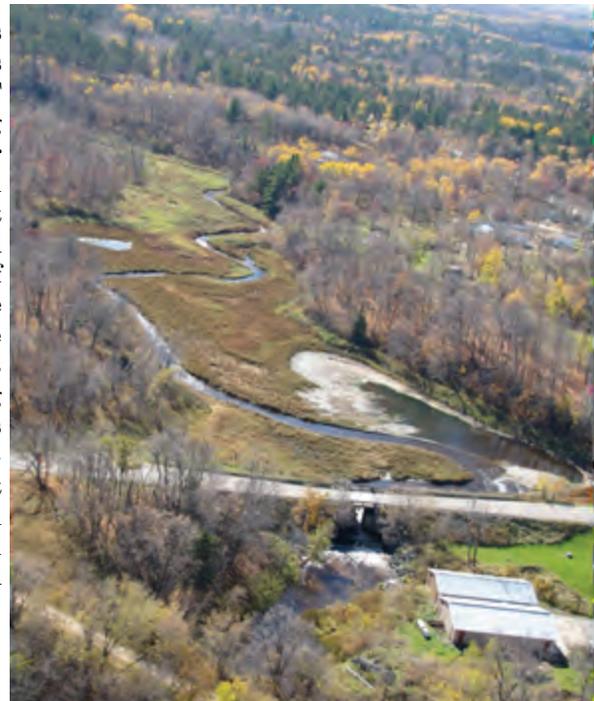


Figure 3. Estimated length frequency of walleye in the Red Lakes, Fall 2011.

Azhaski-ziibi Ashenigewin (Mud River Restoration)

As you cross the Mud River in Redby you might not realize that you are crossing a platform of partnership and cooperation. The Minnesota Department of Transportation (MN/DOT), Minnesota Department of Natural Resources (MNDNR) and Red Lake programs including DNR, Economic Development, Legal, and Roads, and Red Lake Tribal Council representatives have been working together to facilitate the bridge replacement, dam removal, and stream restoration projects. These projects will promote safety as well as environmental benefits of fish passage, improved water quality, and habitat.

You may have watched the water level dropping and plants growing to help stabilize nine feet of sediment that has accumulated the last 90 years. Perhaps you saw MN/DOT staff surveying the area or the giant yellow rig drilling sediment cores to determine the soil texture and stability for the new bridge or Red Lake DNR staff surveying stream features and elevations and plant communities. Current stream restoration activities include permit applications and finalization of the stream restoration design, which consists of the excavation of a new meandering channel and the placement of willow and logs for stream stabilization to be completed this winter. Current bridge replacement activities include permit applications and the relocation of the existing water line that crosses the Mud River impoundment. This spring, erosion control sheet piling and a culvert style de-watering system will be installed for the upcoming sediment excavation for the new bridge which will be placed just south of the existing bridge. The new bridge will feature pedestrian walkways, trail access to the Mud River, and a straight road alignment for public safety.





Red Lake DNR

15761 High School Drive

Red Lake, MN 56671

Phone - (218) 679-3959

Fax - (218) 679 - 2830

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www.redlakednr.org

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